

# Army Institute of Technology



Onward to Glory

## SELF STUDY REPORT

SUBMITTED TO

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)

*An Autonomous Institution of the University Grants Commission*

P.O. Box No. 1075, Nagarbhavi,  
Bangalore - 560 072

BY

ARMY INSTITUTE OF TECHNOLOGY

Alandi Road, Pune 411015  
Maharashtra

## PREFACE

Army Institute of Technology (AIT) is a unique welfare project of the Indian Army, founded in August 1994, as a result of the vision, and untiring efforts of Late Gen. B.C. Joshi PVSM, AVSM, ADC, then Chief of Army Staff, with the aim to provide quality technical education to wards of army personnel. The beautiful campus, serene ambience, architectural splendor and state of the art infrastructure, all provide vital ingredients for a conducive and stimulating academic environment for development of total quality engineers.

Institute offers four UG courses and one PG course for the wards of army personnel purely on merit basis.

### UG courses (Bachelor of Engineering)

- Computer Engineering 60 Seats
- Information Technology 60 Seats
- Mechanical Engineering 60 Seats
- Electronics and Telecommunication Engineering 120 Seats

### PG course (Master of Engineering)

- Mechanical Engineering Design 18 Seats

### The salient features of the institute are:

- Run under the aegis of Army Welfare Education Society (AWES), New Delhi.
- Approved by :
  - All India Council for Technical Education (AICTE), New Delhi;
  - Directorate of Technical Education (DTE), Mumbai.
- Permanently affiliated to Savitribai Phule Pune University.
- Accredited by NAAC in 2004 and reaccredited in 2010.
- National Board of Accreditation (NBA) accredited in 2007 and 2013.
- ISO 9001: 2008 certified.
- Recognition under the 2(f) and 12 (B) UGC scheme.
- Fully residential.
- 100% UG admission purely on JEE (Main) rank and only for wards of Army personnel.
- Excellent placement record.
- Ranked first in the first year results of colleges affiliated to Pune University for last few years.
- Producing a large number of university rankers every year.
- Wi-Fi campus.
- Good sports and extra - curricular facilities.

- Produced successful Engineers along with Entrepreneurs.
- Industry sponsored projects.
- Good number of internships.
- Various value added programs are conducted to groom students.
- Very good faculty retention ratio.
- Good number of MoUs with industry.
- Promoting research and consultancy.

Thus, AIT is striving for excellence in providing the right environment for development of physical, intellectual, emotional and spiritual quotients with a view to produce total quality engineers, preparing them to face challenges of the modern information society.

Accreditation by NAAC in 2004, resulted in a large number of quality initiatives and institutionalization of quality procedures. After re-accreditation in 2010, based on the recommendations of the peer team, institute has taken substantial quality enhancement measures, which have led to a marked improvement in the overall functioning of the institute. In this SSR, we have tried to bring out the quality sustenance and enhancement measures taken during the last four years.

Dr B P Patil  
Principal

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**STEERING COMMITTEE**

1	Dr. Sujata Marathe ( HOD Applied Science and General Engineering)	Coordinator
2	Mrs. K S Surekha ( HOD Electronics and Telecommunication)	Member
3	Prof. Dr. J B Sankpal ( HOD Mechanical)	Member
4	Prof. Dr Sangeeta Jadhav (HOD Information Technology)	Member
5	Mr. S R Dhore (HOD Computer)	Member
6	Mr. A K Singh	Member
7	Dr. Seema Tiwari	Member
8	Mrs. D A Zanpure	Member
10	Ms. Sushma Shirke	Member
12	Ms. Shradha Oza	Member
13	Ms. Vaishali Ingale	Member

## EXECUTIVE SUMMARY

- Army Institute of Technology (AIT), was founded as a result of the vision of Late Gen B C Joshi in order to provide quality technical education to wards of army personnel. As a result of his untiring efforts AIT was established in August 1994 under the aegis of the Army Welfare Education Society (AWES).
- The institute started with three programmes BE(Computer), BE(Electronics and Telecommunication) and BE(Mechanical) in 1994 with intake of 60 seats in each programme.
- To meet the demand from the IT industry, the Information Technology programme was introduced in 2001 with intake of 60 seats.
- The intake in the Electronics and Telecommunications programme was increased to 120 seats in 2010.
- Post graduate programme in Mechanical Engineering Design has been introduced from 2015.
- AIT is permanently affiliated to Savitribai Phule Pune University (SPPU) and recognized by All India Council of Technical Education (AICTE).
- UGC recognition under 2(f) and 12(B) has been obtained in September 2014.
- Institute is NAAC and NBA accredited and ISO 9001:2008 certified.
- AIT is ranked 29<sup>th</sup> and 35<sup>th</sup> among self financing engineering colleges in India as per the survey for the year 2015 by “The Week” and “Outlook” respectively.
- LOKMAT National Leadership award, was presented to AIT as “Outstanding Engineering Institute in Western Region” in July 2015.
- AIT has been awarded the “National Employability Award 2016” by Aspiring Minds for being among the top 10% colleges that excelled in AMCAT test for a dream job.
- AIT has state of art infrastructure with excellent laboratories, classrooms, hostels, seminar halls, amphitheatre etc. located in a 30 acre lush green campus.
- Admission to AIT is strictly on the basis of All India Rank obtained in the Joint Entrance Exam (JEE) Main with a maximum of 5% weightage added to wards of gallantry award winners. The admission process is transparent and all admission details are updated on AIT website.
- AIT students share a common army background but have diverse regional and socio-economic background.
- AIT offers large number of scholarships to meritorious deserving students. In 2014-15 scholarships amounting to Rs 1,28,20,000/- were awarded to 381 students.
- College has an excellent placement record, and placement percentages have reached 92% in the last year.
- Results of our students are consistently good with 4-5 students getting University ranks every year.
- Meticulous planning for teaching begins with uploading of lesson plan and notes on e-learning platform “MOODLE”. Mock tests and

assignments are regularly given. Along with the traditional methodology, use of ICT-based teaching enriches the teaching – learning process.

- Online feedback mechanism for faculty from students helps in enriching the competency of the faculty. Online feedback from students is also taken for administration and services and action taken promptly.
- Value added courses at first, second and third year of study are arranged to prepare our students to meet the industry requirement and bridge the gap between industry and curriculum.
- Formal soft skills training from first year onwards is given in evening classes by professional experts with corporate experience.
- Curriculum enrichment is done by conducting large number of guest lectures, workshops, seminars and industrial visits. A large number of students do internships.
- Academic flexibility is achieved by introducing advanced and industry-offered courses (electives) during the final year of UG program.
- Institute has a separate R&D cell to facilitate the smooth implementation of research projects. The college provides complete autonomy to principal investigator for utilization of funds and grants are released immediately. We have a large number of ongoing research projects and in the last four years we have obtained research funding and grants to the tune of Rs. 50 lacs from various funding agencies.
- Innovation and incubation cell has been established in 2014 to foster the spirit of innovation and entrepreneurship in our students.
- Eight faculty members have PhD and 30 are pursuing PhD.
- Our institution encourages filing of patents by providing guidance and part sponsorship.
- Staff members are encouraged to attend workshops, seminars and faculty development programs.
- A new library with centrally air conditioned reading hall was created in 2014.
- Campus provides hi-speed internet and Wi-Fi is available in academic blocks and hostels to enable students and faculty members to have easy access to teaching-learning and research related information. NKN connectivity has recently been added.
- Effective administration, planning and monitoring of all activities is achieved through regular weekly meetings of Director and Principal with heads of departments, six-monthly Local Management Council meetings and monthly extended student council meetings (ESCM) with students. Policy decisions are taken in Governing Body meetings held once in a year. Besides this the Local management Committee (LMC) members keep interacting with Director almost on a daily basis to ensure that the college meets its stakeholders expectations.
- Green initiatives like solar energy project (roof top interactive grid) - generating 225 KW power and Phytoid based Sewage Treatment Plant (patented by NEERI) have been implemented in the campus.

- Students actively participate in extra and co-curricular activities and we have a large number of very active student clubs and chapters, like Computer Society of India (CSI), Institute of Electrical and Electronics Engineers (IEEE) and Robotics Society of India (RSI).
- AIT has an excellent infrastructure for sports and extracurricular activities.
- Sports facilities include a day and night tennis court, two day and night basket ball courts, a football field, a cricket field, indoor badminton court and two squash courts.
- Institute's biggest asset is a close knit counseling system with a group of 15 students under one faculty member as their counselor for both academic and non academic issues. Further the system is made stronger with the mentor system, where senior students take upon themselves to help their junior, under the guidance of the counselor.
- AIT is a fully residential institute with around 960 boys and 175 girls residing in three boys' hostels and one girls' hostel. Hostel administration is done by the Joint Director through rectors and wardens. Each hostel has a mess, study hall, recreation room, gymnasium etc.
- AIT also has accommodation for about 40 staff members.
- The campus is self sufficient with facilities such as medical center with nursing assistant and ambulance, ATM, Xerox centre, stationery shop, laundry service, CSD, refreshment canteen, fruit shop, air-conditioned barber shop etc.
- An active Alumni Association helps in guiding students and providing them opportunities for sponsored projects and internships.

## SWOC ANALYSIS OF THE INSTITUTE

### STRENGTHS

- JEE Main entry with 100% admissions on merit.
- All India background of students.
- Residential facilities provide opportunities for good student interaction and peer induced soft skills development and development of competitive spirit.
- State-of-the-art infrastructural facilities like well-equipped classrooms, laboratories and hostels.
- Armed Forces background.
- Armed Forces patronage.
- Excellent placements and a good image in industry.
- A close knit counseling and mentoring system.
- Good results.

### WEAKNESS

- Selected to Applicant Ratio is low due to limited number of applicants being an institute for Army wards only.
- Research & Consultancy is yet to grow to its full potential.
- Limited senior faculty staying inside the campus.
- Approval process for high budgeted expenditure and institutional policy decisions is lengthy, local management members being high level Government functionaries.

### OPPORTUNITIES

- Collaboration with co-located DRDO establishments and College of Military Engineering.
- Networking possibilities with expanding Industry & Academia in Pune.
- Increasing Alumni willingness, to support AIT growth initiatives.
- Possibility of tapping Pune's sizable student population for sustaining evening courses.
- More research funding and consultancy could be obtained from AICTE/DST/TEQIP/UGC as well as local industries.

### CHALLENGES

- Increase in number of IITs, NITs and IIITs attracting away higher merit students.
- Lower tuition fees of NITs, IIITs, attracting away higher merit students.
- Competition from private institutions like SRM, BITS, VIT, Manipal which have upgraded hostel facilities and admit students before our JEE rank based admissions.
- Increasing proportion of students from rural background could dilute AIT's reputation of strength in soft skills.

**PROFILE OF THE INSTITUTE**

## 1. Name and Address of the College:

<b>Name :</b>	<b>ARMY INSTITUTE OF TECHNOLOGY</b>	
<b>Address :</b>	Alandi Road, Dighi Hills, Pune, Maharashtra, Pin code: 411 015	
<b>City :</b>	Pune	<b>State :</b> Maharashtra
<b>Website :</b>	www.aitpune.com	

## 2. For Communication:

<b>Designation</b>	<b>Name</b>	<b>Telephone with STD code</b>	<b>Mobile</b>	<b>Fax</b>	<b>Email</b>
Director	Brig (Dr.) S. K. Lahiri (Retd.)	O:020-27157741 R:020-65100910	9423132138	020-27157534	director@aitpune.edu.in
Principal	Dr. B. P. Patil	O:020-27157741 R: 9689907475	9689907475	020-27157534	principal@aitpune.edu.in
Vice Principal	-	-	-	-	-
Steering Committee Coordinator	Dr. Sujata Marathe	O:020-27157534 ext.2170 R: 9921445544	9921445544	020-27157534	hodasge@aitpune.edu.in naac_coord@aitpune.edu.in

## 3. Status of the Institution:

Affiliated College Constituent College Any other (specify) 

## 4. Type of Institution:

a. By gender For Men For Women Co Education

b. By Shift

Regular

Day

Evening

5. Is it a recognized minority institution?

Yes  No

If yes specify the minority status (Religious/Linguistic/Any Other) and provide documentary evidence.

6. Sources of funding:

Government

Grant –in- aid

Self – financing

Any other - AWES funded

7. a. Date of establishment of the college: 05 August 1994

b. University to which the college is affiliated/ or which governs the college (If it is a constituent's college): Savitribai Phule Pune University

c. . Details of UGC recognition:

Under section	Date, Month & Year ( dd-mm-year)	Remarks
2(f)	5 <sup>th</sup> Sept 2014	The college is now declared fit to receive Central Assistance in terms of rules framed under section 12(B) of the UGC act 1956. However, the college being self financing and unaided, would be eligible to receive UGC's support only in respect of teachers and students' related schemes as per the decision of the Commission dated 8 <sup>th</sup> July 2011.
12(B)	5 <sup>th</sup> Sept 2014	

(Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act is enclosed)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ Clause	Recognition/Approval details Institution/Department Programme	Date, Month & Year ( dd-mm-year)	Validity	Remarks
i. AICTE	F No 740-89-288(E) /RC/95	02/05/2009	2008-10	Extension of Approval
ii. AICTE	F No Western Region MHA/ 1/14666921/2010/E0A	23/08/2010	2010-11	Extension of Approval
iii. AICTE	F No	01/09/2011	2011-12	Extension of

	Western/413869452/2011/ EOA			Approval
iv. AICTE	F No Western/736912423/2012/ EOA	10/05/2012	2012-13	Extension of Approval
v. AICTE	F No Western/ - 1366418533/2013/EOA	19/03/2013	2013-14	Extension of Approval
vi. AICTE	F No Western/1- 2018665672/2014/EOA	4/6/2014	2014-15	Extension of Approval
vii. AICTE	F No Western/ 1- 2453903098/2015/EOA*	7/4/2015	2015-16	Extension of Approval

(\*approval letter enclosed)

8. Does the affiliating university Act provide for conformant of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes  No

If yes, has the College applied for availing the autonomous status?

Yes No

9. Is the college recognized?

a. By UGC as a College with Potential for Excellence (CPE)?

Yes No

If yes, date of recognition: ..... (dd/mm/yyyy)

b. For its performance by any other governmental agency?

Yes No

If yes, name of the agency ..... and

Date of recognition: ..... (dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location *	Alandi Road, Pune * Urban
Campus area in sq. mts.	121405.7
Built up area in sq. mts.	53454.0

(\* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

Auditorium/seminar complex with infrastructural facilities

Sports facilities

Play ground

Swimming pool

Gymnasium

Hostel

\* Boys Hostel

Number of Hostels : 03  
 Number of Inmates: 960  
 Facilities : Recreation Room, Mini- canteen

\*Girls' hostel

Number of Hostels : 1  
 Number of Inmate: 170  
 Facilities : Recreation Room, Beauty parlor

\* Working Women's Hostel: Nil

i.Number of inmates

ii.Facilities (mention available facilities)

- Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise)

S.No.	Cadre	Number of quarters
1	Director	1
2	Joint Director	1
3	Teaching – Assistant Professor	09
4	Non Teaching	30
5	Guest House	02
	Total	43

- Cafeteria —√

- Health centre —√

First aid √, Outpatient √, Emergency care facility √, Ambulance √  
 Health centre staff –

Qualified doctor      Full time √      Part-time

Qualified Nurse      Full time √      Part-time

\* Institute has an agreement with MH Kirkee for medical assistance of all students (Army dependents)

- Facilities like banking, post office, book shops √

\* Institute has a book shop in the shopping complex. It has HDFC ATM. Two banks – SBI and Bank of Baroda and post office is located within 1.5 km radius

- Transport facilities to cater to the needs of students and staff √

- Animal house

- Biological waste disposal √

- Generator or other facility for management/regulation of electricity and voltage √

- Solid waste management facility ✓
- Waste water management ✓
- Water harvesting ✓

12. Details of programmes offered by the college (Give data for current academic year)

S. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	1. Computer Engineering 2. Electronics and Telecommunication Engineering 3. Mechanical Engineering 4. Information Technology	4 years	12 <sup>th</sup> + JEE(Main)	English	60 120 60 60	300 + 02 (supernumerary)
2	Post-Graduate	Mechanical Engineering Design	2 years	GATE	English	18	18
3	Integrated Programmes PG						
4	Ph.D.						
5	M.Phil.						
6	Ph.D						
7	Certificate courses						
8	UG Diploma						
9	PG Diploma						
10	Any Other						

13. Does the college offer self-financed Programmes?

Yes No ✓

If yes, how many?

14. New programmes introduced in the college during the last five years if any?

Yes	√	No		Number	01
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15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments (e.g. Physics, Botany, History etc.)	UG	PG	Research
Science				
Arts				
Commerce				
Any Other (Specify)	Computer Engineering	√		
	Electronics and Telecommunication Engineering	√		
	Information Technology	√		
	Mechanical Engineering	√	√	

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

- a. annual system
- b. semester system √
- c. trimester system

17. Number of Programmes with

- a. Choice Based Credit System
- b. Inter /Multidisciplinary Approach
- c. Any other (specify and provide details): Affiliated to Pune University

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes No √

If yes,

Year of Introduction of the programme(s).....

And number of batches that completed the programm

b. NCTE recognition details (if applicable)

Notification No.: ..... Date:

Validity:.....

Is the institution opting for assessment and accreditation of Teacher Education Programme Separately?

Yes

No √

19. Does the college offer UG or PG programme in Physical Education?  
 Yes  No

If yes,

a. Year of Introduction of the programme(s).....  
 and number of batches that completed the programme

b. NCTE recognition details (if applicable)

Notification No.: ..... Date: .....

Validity:.....

c. Is the institution opting for assessment and accreditation of Physical Education Programme Separately?

Yes  No

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor					
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Government <i>Recruited</i>	02	00	09	04	24	29	47	07	15	06
<i>Yet to recruit</i>	-	-	-	-	-	-	-	-	-	-
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	00	01	00	00	07	07	09	05	15	07
<i>Yet to recruit</i>	-	-	-	-	-	-	-	-	-	-

\*M-Male \*F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	02	01	02	02	00	01	08
M.Phil.						01	01
PG			07	02	24	27	60
Temporary teachers							
Ph.D.							
M.Phil.							
PG					07	07	14
Part-time teachers							
Ph.D.							

M.Phil.							
PG							

22. Number of Visiting Faculty /Guest Faculty engaged with the College –  
03

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	Year 1		Year 2		Year 3		Year 4	
	Male	Female	Male	Female	Male	Female	Male	Female
SC								
ST								
OBC								
General	250	43	248	55	259	43	245	49
Others								

24. Details on students enrollment in the college during the current academic year: 2015-16

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	05	16			21
Students from other states of India	297	02			299
NRI students	-				
Foreign students	-				
Total	302	18			320

25. Dropout rate in UG and PG (average of the last two batches) UG : 3%  
PG: NA

26. Unit Cost of Education  
(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled )

(a) Including the salary component Rs. 1,23,037.00  
(b) excluding the salary component Rs. 33,575.00

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

If yes,

a) is it a registered centre for offering distance education programmes of another University

Yes No

b) Name of the University which has granted such registration

c) Number of Programmes offered

d) Programmes carry the recognition of the Distance Education Council

Yes No

28. Provide teacher – student ratio for each of the programme/ course offered:

1 : 14.7

29. Is the college applying for

Accreditation : Cycle 1      Cycle 2      Cycle 3       Cycle 4

30. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Cycle 1: 16/02/2004 Accreditation Outcome/Result: B+, Institutional score 77.1

Cycle 2: 04/09/2010 Accreditation Outcome/Result: B, CGPA 2.81

\* Copy of accreditation certificate and peer team report enclosed as an annexure.

31. Number of working days during the last academic year : 262

32. Number of teaching days during the last academic year: 182

(Teaching days means days on which lectures were engaged excluding the examination days)

33. Date of establishment of Internal Quality Assurance Cell (IQAC)

25/02/2005

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC

AQAR (i)	04/11/2011
AQAR (ii)	24/12/2012
AQAR (iii)	10/12/2013
AQAR (iv)	24 / 12 / 2014

## CRITERION I: CURRICULAR ASPECTS

### 1.1 Curriculum Planning and Implementation

**1.1.1 State the vision, mission and objectives of the institution, and describe how the same are communicated to the students, teachers, staff and other stake holders.**

**VISION :**

- Strive for excellence in providing the right Environment for development of Physical, Intellectual, Emotional and Spiritual Quotients with a view to produce Total Quality Engineers preparing them to face challenges of Modern Information Society.

**MISSION :**

- Provide state of art infrastructure till deemed sufficient through input of staff and students for building up a centre of excellence.
- Nurture and foster an academic fraternity to cater to the need of the Engineering students community.
- Encourage and motivate staff and students to utilize the facilities provided to them, with their innovative and creative thinking in an effective way for their overall development.
- Augment all available avenues to develop staff and students for emerging need of society and develop Army Institute of Technology into a Global Centre of excellence in the field of Technical Engineering Education.

To effectively communicate the institute's vision and mission, following measures are taken -

- Director's address to students each year begins with the vision and mission statements
- Display boards are put up in the premises of each department
- Admission brochure contains the vision and mission statements
- College website displays/has link of vision and mission statements
- Faculty Development Programs and the workshops/conferences organized by the various departments of the college enable the vision and mission statements to have a wide coverage.

**1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).**

- Academic Calendar contains all central programs, major college and departmental level events
- Departmental time table contains the schedule for teaching to meet the requirements of university curriculum.
- Individual time tables are prepared by individual faculty
- Lab time tables describe the utilization of laboratories
- Subject lesson plans are prepared by each faculty and submitted to head of department. The head of department monitors the status of syllabus covered every month and at the end of semester. Faculty

members ensure that they cover more than 95% of syllabus by end of term.

- Lesson plans are also uploaded on MOODLE for students' reference.
- Weekly training program showing the topics to be covered in upcoming week are also uploaded on MOODLE and displayed on departmental notice board.
- Class notes, power point presentations, links to relevant animations/videos are also updated on MOODLE.
- Assignments and mock tests are put up on MOODLE.
- Lab manuals are prepared for each subject and they are used as a reference by the students.
- A mock practical exam is conducted for students in their practical classes at the end of each semester.
- Notice boards are used for display of various notices/information/assignments etc to be passed on to the students.
- Students are informed about placement activities and other major events on official unique email-id.
- Class room teaching is augmented by arranging guest lectures and workshops by experts from industry and academia.
- Further, in order to get a real time exposure to industry, industrial visits are arranged every semester for the students.
- In-plant training in industries during vacation supports the students in the form of industrial projects and internships.
- Automated feedback from students is analyzed periodically to improve the teaching learning process.
- Feedback from industry is also analyzed and suitable changes in classroom curriculum are made.
- Evening classes for value addition courses are also organized as required.

### **1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?**

- The university/Board of studies (BOS) conducts syllabus revision and syllabus implementation workshops and our institute teachers are deputed to attend all these workshops.
- Institute conducts lectures by experts on various subjects as well as teaching methodologies.
- Faculty Development Programmes (FDP) are conducted by university in various subjects to enable teachers to effectively translate the curriculum in such a manner that the students will understand the finer points in addition to the routine topics of the subject.
- The college details the faculty members to attend these FDPs.
- College also conducts FDP for various subjects to benefit faculty not only from its institute, but also from other institutes. Also faculty members are sponsored to attend seminars, workshops, guest lectures and special training in teaching methodologies.
- In order to experience the practical applications of the theory learnt, students are taken for an industrial visit every semester. Moreover,

practical classes are updated beyond the syllabus, so that whatever is learnt by the student is tangible and not abstract and widens the students' practical knowledge in that specific area of study.

- Modern teaching facilities like smart class rooms, video/audio facilities, technical video resources (video CDs, DVDs) are utilized for effective delivery of the subject material to the students.
- NKN connectivity will in future enable interaction with premier institutes.

Table below summarizes the activities of our teachers in this area for the last four years.

Year	No of faculty attended STTP, FDP, etc
2011-12	31
2012-13	35
2013-14	44
2014-15	47

Year	No of faculty attended Workshop, Conferences, etc
2011-12	40
2012-13	48
2013-14	50
2014-15	50

#### **1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other Statutory agency.**

- The college employs qualified faculty in all departments.
- The college has and keeps updating its laboratories as per syllabus and project requirements.
- All departmental heads ensure that the faculty complete more than 95% syllabus every semester
- All the class rooms and labs are ICT enabled.
- MoUs have been signed with industries to enable effective dissemination of knowledge. Currently, college has MoU with NVIDIA, Phytex, Texas Instruments (Gill Instruments) Microsoft, IBM, Oracle, Bharat Forge, CD-adapco, DRDO, ARDE, Red Hat, NekTek, Proplam Networks and Helium ink.
- College has CSI, RSI, IETE and IEEE chapters.

#### **1.1.5 How does the institution net work and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?**

- Industry Institute Interaction platform exists for verifying/ensuring effectiveness of operationalization.
- CII-III Pune chapter activities are being organized regularly under the convenorship of Director, AIT.

- Each department has an Academic Advisory Council (AAC) incorporating prominent representatives from research bodies, industry and alumni which meet every semester.
- More than 60% of student BE projects are sponsored by the industry.
- Representatives of various stakeholders communicate their views during IQAC meetings.
- Industrial visits for students are arranged, so that, the students along with experiencing the application of the theory studied by them, also learn the requirements that the various industries expect from them.
- Placement cell provides a platform for interaction among both students and industry.
- Training and Placement Officer (TPO) interacts continuously with industry and provides feedback.
- The college encourages in-house projects which help the faculty to apply/obtain funded projects from various bodies such as AICTE, DRDO, and BCUD. This facilitates a constant interaction between research bodies and the college, and also, the students are given an exposure to the scope of the syllabus studied by them in terms of research applications, patents, etc.

**1.1.6 What are the contributions of the institution and /or its staff members to the development of the curriculum by the University? (Number of staff members/ departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.)**

- Faculty members actively participate in syllabus revision/ formulation workshops by Board of Studies (BoS) of the university. Informal feedback taken from students is also discussed in these workshops.
- AIT has a very active alumni association, which is in constant touch with the institution. A feedback is also regularly taken from them.
- From this academic year a section on ‘Curriculum Feedback’ has been introduced in the feedback by students.
- The class counselor holds meetings periodically with students to understand their difficulties, their expectations etc., which is then conveyed to the faculty members after due consultations with the head of department.
- Further the expectations of the industry are put forth to the management by the Training and Placement Officer (TPO) and this is also given due consideration by the faculty members and communicated to University.
- Value addition courses (evening classes) under professionals are conducted in the institution to rectify critical gaps pointed out by the industry.
- Students are encouraged to undergo MOOC courses for self learning.

**1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating University) by it? If ‘yes’, give details on the process (‘Needs Assessment’, design,**

**development and planning) and the courses for which the curriculum has been developed.**

The institute does not offer courses other than that prescribed by affiliating university, but value added courses and Campus Connect programs are conducted.

### **1.1.8 How does institution analyze/ ensure that the stated objectives of curriculum are achieved in the course of implementation?**

- The institute provides registers for conduct and recording of theory and practical attendance and performance of students. The same is reviewed by the HOD on a monthly basis.
- Points from faculty are taken during HOD meeting, or informally and any sort of difficulty is addressed or reviewed.
- Departments conduct seminars and workshops for faculty and students thereby ensuring not only that the objectives of the curriculum are achieved but substantially more is done for the benefit of the students.
- Guest lectures workshops, campus connect programs by subject experts from the industry and research bodies are organized for covering topics beyond syllabus.
- Industrial visits prescribed in the syllabus are compulsorily organized for the students.
- College sponsors students and faculty members to present technical papers in National and International conferences.
- College is also facilitating student internships in industry for up to 30% of the students.

## **1.2 Academic Flexibility**

### **1.2.1 Specifying the goals and objectives give details of the certificate/diploma/skill development courses etc., offered by the institution.**

Value added courses for skill development are conducted by the institute. In the first year, computer programming and soft skills evening classes are conducted. In the second and third year, JAVA, C++, .NET, MCA courses are conducted.

### **1.2.2 Does the institution offer programmes that facilitate winning dual degree? If 'yes', give details.**

No

### **1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:**

- **Range of Core/ Elective options offered by the University and those opted by the college**
- **Choice Based Credit System and range of subject options**
- **Courses offered in modular form**
- **Credit transfer and accumulation facility**

- **Lateral and vertical mobility within and across programmes and courses**
- **Enrichment courses**

**Elective options:** Choice of electives is taken from the students and each department tries to offer all electives opted by more than 5 students. Following table lists the electives suggested by Savitribai Phule Pune University(SPPU) and those offered by institute.

Core/Elective offered by SPPU ( <b>B.E E&amp;TC</b> )	Core/Elective offered by institute
Elective –I 1. Digital Image Processing 2. Embedded System and RTOS 3. Industrial Drives Control 4. Microwave communication and RADAR  Elective-II 1. Entrepreneurship Development 2. Joint Time Frequency Analysis 3. Micro-electromechanical-system and System on chip ( MEMS and SOC) 4. Mobile Communication	Elective –I 1. Digital Image Processing 2. Embedded System and RTOS  Elective-II 1. Micro-electromechanical-system and System on chip ( MEMS and SOC) 2. Mobile Communication

Core/Elective offered by SPPU ( <b>B.E. Mechanical</b> )	Core/Elective offered by institute
1. Energy audit and Management 2. Product Design And Development 3. Design Of Pumps, Blowers And Compressors 4. Tribology 5. Automobile Engineering 6. Machine Tool Design 7. Quantitative And Decision Making Techniques 8. Computational Fluid Dynamics 9. Finite Element Method 10. Robotics 11. Advanced Air Conditioning And Refrigeration 12. Industrial Heat Transfer Equipments 13. Management Information System 14. Reliability Engineering	1. Tribology 2. Automobile Engineering 3. Computational Fluid Dynamics 4. Element Method 5. Management Information System

Core/Elective offered by SPPU <b>B E (COMPUTER)</b>	Core/Elective offered by institute
<p>Elective –I</p> <ol style="list-style-type: none"> <li>1. Image Processing</li> <li>2. Design &amp; Analysis of Computer Networks</li> <li>3. Artificial Intelligence</li> <li>4. Software Architecture</li> </ol> <p>Elective-II</p> <ol style="list-style-type: none"> <li>1. Multimedia Systems</li> <li>2. Mobile Computing</li> <li>3. Embedded Systems</li> <li>4. Software Testing &amp; Quality Assurance</li> </ol> <p>Elective III:</p> <ol style="list-style-type: none"> <li>1. Pattern Recognition</li> <li>2. High Performance networks</li> <li>3. Neural Networks</li> <li>4. Advanced Databases</li> </ol> <p>Elective IV:</p> <ol style="list-style-type: none"> <li>1. VLSI &amp; Digital System Design</li> <li>2. Operations Research</li> <li>3. Cloud Computing</li> <li>4. Information Security</li> </ol> <p style="text-align: center;">or</p> <p>Open Elective</p>	<p>Elective –I</p> <ol style="list-style-type: none"> <li>1. Artificial Intelligence</li> </ol> <p>Elective-II</p> <ol style="list-style-type: none"> <li>1. Software Testing &amp; Quality Assurance</li> </ol> <p>Elective III:</p> <ol style="list-style-type: none"> <li>1. Advanced Databases</li> </ol> <p>Elective IV:</p> <ol style="list-style-type: none"> <li>1. Information Security</li> </ol>

Core/Elective offered by SPPU <b>B E (IT)</b>	Core/Elective offered by institute
<ol style="list-style-type: none"> <li>1. Advance Database Management</li> <li>2. System</li> <li>3. Artificial Intelligence</li> <li>4. Compiler Deign</li> <li>5. Advanced Operating Systems</li> <li>6. Real Time System</li> <li>7. Embedded System</li> <li>8. Mobile Computing</li> <li>9. Multimedia Systems</li> <li>10. Real Time System</li> <li>11. Software Architecture</li> <li>12. Advanced Graphics</li> <li>13. Advance Computer Networks</li> <li>14. Bio Informatics</li> </ol>	<ol style="list-style-type: none"> <li>1. Artificial Intelligence</li> <li>2. Mobile Computing</li> <li>3. Software Architecture</li> <li>4. Advance Computer</li> <li>5. Networks</li> <li>6. Bio Informatics</li> <li>7. Geo Informatics Systems</li> </ol>

**Choice Based Credit System and range of subject options - NA****Courses offered in modular form - NA****Credit transfer and accumulation facility - NA****Lateral and vertical mobility within and across programmes and courses:** Lateral mobility is possible at the end of first year.**Enrichment programs**

- Java, C++ and MCA classes and Boot Camp sessions for E&TC students.
- Java, C++ classes and Boot Camp sessions for Computer students.
- .NET, Oracle workforce development classes and Boot Camp sessions for IT students.
- MATLAB workshop for Mechanical students.
- AMCAT survey of students to check and improve upon their aptitude ability, technical ability, English vocabulary, soft skills etc. for third year students.
- Soft skills classes and Computer Programming classes are conducted in the evening for first year students found to be weak in English and Computer Programming.

**1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.**

There are no self financed programs.

**1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.**

Yes. Details of programs conducted for the last four years are listed below.

Sr. No.	Name of course	Agency/Resource person conducting the program	Year
1	Workshop on Electronic Mini Projects	Mr. V B Bapat Technical Consultant Pune	2011-12
2	Workshop on MATLAB	Prof.Sushma Shelke PICT, Pune	2011-12
3	Workshop on Multisim Based Simulation	Mr.Ravikumar Trident Techlabs	2011-12
4	National Workshop on "Signal and Image Processing using Lab view (SIPLV-2012)"	Mr.Sahil Singhla National Instruments, Pune	2012-13
5	PCB Designing	Prof. AvinashPatil, AIT, Pune	2012-13

6	Embedded System Design using “MSP 430”	Mr. Gurjeet Singh, Director, Gill Instruments Pvt. Ltd., Bangalore.	2012-13
7	One day Workshop on “Linux based ARM development”.	Mr.Ravishankar, Mr.Nagmahesh, Phytex, Bangalore	2013-14
8	One day Workshop on “Embedded C based ARM development”.	Mr.Nagmahesh, Phytex, Bangalore	2013-14
9	One day Workshop on “Proteus Simulation Tools”.	Mr. Avinash Patil, AIT, Pune	2013-14
10	One Week Workshop on “Advance Industrial Automation”	Mr. Himanshu Kumar Mr. Amit Kumar	2013-14
11	One Day Workshop on “CUDA Programming”	Mr. Ashish Mankar	2013-14
12	PHP	Mr. Jayant V Desale, Technocorp Solution Pvt. Ltd	2013-14
13	LINUX	Mr.Yogeshwar Shukla	2013-14
14	JAVA	ATS Infotech Ltd.	2013-14
15			
16	OPENGL & Animation Tool	Mr. Girish Ghate, ATS InfoTech Ltd.	2013-14
17	.NET	Microsoft IT Academy, ATS Infotech Ltd.	2013-14
18	Microsoft .NET FDP Program	Microsoft IT Academy, ATS Infotech Ltd.	2013-14
19	Oracle and Software Engineering IBM	Oracle Corporation Ltd.	2013-14
20	QT Framework	Mr. Vikrant Chandekar	2014-15
21	Spoken Tutorial	IIT Bombay	2014-15
22	NNSC	Mr.Kashish Sachdeva and Mr.Nishant Puri	2014-15
23	MATLAB workshop	Dr J B Sankpal	2015-16

**1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice? If yes, how does the institution take advantage of such provision for the benefit of students?**

No such provision exists as of now.

### 1.3 Curriculum Enrichment

**1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?**

To supplement the University's curriculum and ensure that the Institution's goals and objectives are integrated in the academic programmes college takes various steps for curriculum enrichment like:-

- Value added evening courses – From the first year onwards Computer programming and Soft Skills classes are conducted by professional experts for students identified to be weak in these skills.
- In the second and third year JAVA, C, C++, .NET, MCA, systems are some of the value added courses conducted by the institute. Besides this 3 day workshops are conducted on VLSI, embedded systems, MATLAB workshops etc.
- Mock Group Discussion/Personal interview (GD/PI) sessions with professional expert for the third year students.
- Organization of large number expert lectures on latest developments in the respective branch by every department.
- Mini projects – In the first year, study type mini projects are done by the students. Students submit a short report and give a short presentation on scope for future development in the area. From the second year onwards, branch specific mini projects are done by all second and third year students.
- Student internships – In the last year about 30% of our final year students did internships. College helps in procuring internships offers from Army, DRDO and other government organizations for our students.
- Sponsored projects – Around 60 - 70% of final year projects are sponsored
- Technical club activities – Students get a hands on experience through various club activities like Supra-Baja, Robotics, Open Source software, Innovation and Incubation cell etc. as well as technical competitions like "Tech-Aakriti" and "Solutions" to induce peer-pressure driven technical growth of students.
- Project Competitions – AMALGAM-Final year project competition with cash prizes is held every year.
- SSB training is provided to students interested in joining the armed forces.

### **1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?**

Institute allows special leave for students opting for internships.

Add on courses, guest lectures/lectures by experts are conducted at the department level or the institute level.

<b>Year</b>	<b>No. of students who did internships</b>
2011-12	37
2012-13	107
2013-14	144
2014-15	141

### **1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?**

- Climate change and environmental Education is part of the curriculum in the first year.
- ICT is widely used in and outside the institute by the students and faculty. The institute library provides additional support in the form of e-resources. The campus has wi-fi connectivity.
- Departmental library is available for students which provide reference books, project reports and CD's of video lectures NPTEL, etc.
- NKN connectivity is also available.
- Guest lectures are arranged on cross cutting issues like human rights, health related issues etc.

S. No.	Details of lecture	Date	Audience
1	“Will Power to Excel” by Mr. Vishal Kaushal	26 July 2012	First year students
2	“Art of Re-living” by Prof. R M Jalnekar	31 July 2012	First year students
3	“Mind Mechanics” By Mr Dhruv Agarwal and Ms Neha Agarwal	20 July 2013	First year students
4	“Power of Habits” by Dr Keshavanand Das	26 July 2014	First year students
5	“Innovating Education: Empowering Youth” by Pravin Nikam	26 July 2014	First year students
6	“Seven Habits of Highly Effective People – Stephen Covey” by Col. Amit Dangwal	28 Jan 2014	First year students
7	“Health issues faced by hostellers” by Maj. Kuntal and Maj. Shruti	20 July 2015	First year students
8	“Personality Development” by Mr Pawan Yadav	20 July 2015	First year students
9	“Study regarding tobacco and drug abuse” by Col. Raj Kumar	22 July 2015	First and second year students

#### 1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

§ **Moral and ethical values** - Various lectures and activities conducted under NSS club, Spiritual club, orientation program for fresher students help inculcate and strengthen moral and ethical values. Personality development is being inculcated by these measures.

§ **Employable and life skills** - Career guidance and planning is provided through various activities of the Training and Placement Officer.

§ **Better career options** - Career guidance and planning is provided through various activities of the TPO, departmental PR cells and focused Alumni interaction.

§ **Community orientation** - NSS club activities.

### 1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stake holders in enriching the curriculum?

Sr. No.	Stake holder	Feedback	Extent of use of in curriculum enrichment
1	Parent	AIT should acquire NKN connectivity	NKN activation is under way
2	Parent	AIT should initiate collaboration with Pune based companies	NVIDIA lab was established
3	Industry	Need for value added courses	JAVA and MCA courses for E&TC students
4	Students	Hands on workshops are required	Boot camp sessions for Computer, IT and E&TC students for improving placements.

### 1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

Feed back by students after the value added program both formally and informally.

In certain certification courses evaluation is conducted conventionally.

## 1.4 Feedback System

### 1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

Our staff members actively participate in the syllabus revision workshops and discussions.

### 1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

There is a formal system of automated student feedback at the end of each semester. Faculty members also provide curriculum feedback to the Principal through the HOD. After due deliberation, the Principal forwards these points to the University in writing. Feedback is also informally conveyed during personal interaction in meetings with Board of studies (BOS) members, by individual faculty members.

### 1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?

Sr. No.	Name of the program added	Rationale
1	Additional intake in E&TC	Good employment opportunities for core branch.

2	Post graduation in Mechanical design Engineering	Further development of research culture in the institution.
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**Any other relevant information regarding curricular aspects which the college would like to include.**

- Institute plans to start PG programs in Computer Engineering and Electronics and Telecommunication engineering in a phased manner and start a research centre by 2020.
- Institute also plans to apply for autonomous status under the affiliating university in the academic year 2017-18, which would enable the institute to introduce and update industry relevant curriculum.

## CRITERION II: TEACHING - LEARNING AND EVALUATION

### 2.1 Student Enrollment and Profile

#### 2.1.1 How does the college ensure publicity and transparency in the admission process?

(a) Prospectus : Prospectus is made available to prospective candidates through many options

- i. Downloaded from website
- ii. By hand hard copy made available from the college during office hours
- iii. By post after sending DD of requisite amount
- iv. From Army Command Headquarters closest to the place where the parent is serving

(b) Institutional Website: Admission details i.e., general eligibility criteria, general instructions for application, name of qualifying examination, downloadable prospectus, are available on the website and details are frequently updated.

In addition, during the application process the list of applicants, list of applicants with incomplete details or wrong exam numbers etc. are uploaded on website. In addition e-mail and SMS to applicants for successful submission of application with AIT application number and e-mail to applicants whose payments are pending are also sent. This helps the candidate to track his/her application. FAQ section is also available on website.

Final merit list and joining instructions to successful candidates and instructions for waitlisted candidates are displayed on the website. Joining instructions are also sent by email to the first 750 candidates.

(c) Advertisement in Regional/ National Newspapers: This is done by Army Welfare Education Society (AWES) which is the apex body in all leading national level newspapers in the month of January each year.

(d) The college achievements in terms of excellent placements and good National ranking are publicized through posters distributed to all Central and Army schools in the country as well as ex-servicemen associations and Regimented training centres of the Indian Army.

To ensure transparency, all information regarding state of a candidates application is available on AIT website and queries regarding the same are attended to by Admission Cell. AIT merit list is uploaded on website. During the admission process, branch availability is frequently updated in the admission hall as well as on the website.

#### 2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

Students are selected purely based on rank obtained in the Joint Entrance Examination - JEE Main conducted by CBSE. JEE Main ranks of candidates fulfilling AIT's eligibility criteria are extracted from the CBSE results. Weightages for gallantry awards/ wards of war widow are added to the list to obtain AIT merit list.

**2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.**

S. No.	Programme	Year	AIEEE/JEE main rank of first admitted student	AIEEE/JEE main rank of last admitted student	Comparison with other colleges
1	B.E. Computer	2011-12	10676	48748	Comparison with other colleges in the city is difficult due to different entrance criteria.
		2012-13	11399	42923	
		2013-14	14382	60394	
		2014-15	16008	67135	
2	B.E. Electronics and Telecommunications	2011-12	19788	67246	
		2012-13	30965	76998	
		2013-14	42353	151950	
		2014-15	25573	141023	
3	B.E. Information Technology	2011-12	49259	77450	
		2012-13	43731	71210	
		2013-14	63387	151301	
		2014-15	67297	113074	
4	B.E Mechanical	2011-12	18403	46344	
		2012-13	14962	51386	
		2013-14	79458	84380	
		2014-15	16382	91990	

**2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?**

Yes. Review of student profiles is done annually. Details of gender, PCM marks, gap in study if any, parent's rank etc. are compiled. Any deviation in trend is discussed in LMC and GB meetings along with action to be taken if thought necessary. Feedback of admission process is taken and suggestions implemented wherever possible.

**2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion**

**(SC/ST, OBC, Women, Differently abled, Economically weaker sections, Minority community, Any other)**

As per Supreme Court directives admission to AIT is purely based on merit obtained in the entrance examination based on the assumption that the Indian Army is inherently diverse and inclusive.

**2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends.**

i.e. reasons for increase / decrease and actions initiated for improvement.

Programmes	Year	Number of applications	Number of students admitted	Demand Ratio
UG 1 Bachelor in Engineering	2011-12	6122	300	20.40
	2012-13	5458	300	18.19
	2013-14	4128	300	13.76
	2014-15	4112	300	13.70

The fall in demand ratio is attributed to increase in number of IITs, NITs, and IIITs in the last few years as well as increase in the number of private colleges closer to home of applicants over the last few years. In addition, a steady fall in engineering applicants at national level may also have contributed to the lower number of applicants.

## 2.2 Catering to Student Diversity

### 2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

Faculty and staff in-charge of laboratories make necessary adjustments if need arises as per requirement of a differently – abled student. The ground floor of Academic block, Workshop and Central library have ramp access and are accessible by wheelchair.

### 2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Yes, after the commencement of program in the first year, students are assessed for their English and computer programming abilities during the orientation program. Students found to be weak in English / computer programming are made to undergo special evening classes during the first year so as to bring them on par with other students.

### 2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?

- Make up classes for late admitted students.

- Soft skills and computer programming evening classes for first year students found to be weak in these subjects.
- Remedial classes for failed students.
- Industrial visits.
- Guest Lectures/Seminars/Workshops are conducted.
- Industrial Internships.
- Organization of technical competitions like paper presentation, project competitions, programming competitions, model making competitions etc. to give a competitive edge in their program of choice.
- Enrichment courses like ORACLE WDP are conducted to cope up with the program.
- Add on courses like .NET and Cyber security by Microsoft are organized in departments.
- NPTEL courses are made available to staff and students.

#### **2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?**

- Staff and students are actively involved in various programs dealing with gender sensitization, inclusion, environment protection etc.
- Every year tree plantation drive by students and staff is carried out.
- Two blood donation camps are conducted every year.
- Cleanliness drive is conducted on the campus and beyond.
- Girls are motivated to apply for scholarships available under special schemes for girls like, Persistent scholarship, Leela Poonawala scholarship, Badve group scholarship etc.
- College has a counseling system as per which every student is under the guidance of a teacher-counselor
- College has a mentoring system as per which every first year student is under the mentorship of a second year student. The second year mentor is selected based on recommendation of his/her counselor
- College has AIT grievance cell and Women sexual harassment committee which conduct awareness programs.

#### **2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?**

- Advanced learners are motivated to take part in inter college competitions from the first year itself
- Advanced learners are encouraged to carry out mini/major projects, to present technical papers in conferences and journals, to register patents.
- They get technical support from faculty and financial support from college management.
- College motivates advanced learners to take up challenging projects by various private and government organizations like R & DE, Dighi, Southern Command, Pune, Centre for Land Warfare Studies, Army Headquarters, Delhi.

- College also financially supports students to participate in various competitions and presentations.
- College has various student chapters like CSI, IEEE, RSI to organize and increase student participation in co-curricular activities. Student's innovative ideas are supported and guided through Incubation Center and R & D cell of college.
- Students are encouraged to join Robotics club, BAJA-SUPRA club and participate in national Robocon competitions, BAJA-SUPRA competitions etc.
- Students good in computer programming are encouraged to join Open Source Software club and organize their activities.
- Fundamentals in Programming Languages (FPL) laboratory under the FPL value added course conducted for first year students is conducted by selected third year students.

**2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?**

- Counselors regularly monitor the academic progress of students under their charge.
- Academic progress report is communicated to parents of all students at the end of every semester.
- Weak/Underperforming students are counseled by counselor and if required by HOD, Principal and Director.
- Remedial classes are conducted.
- Students from the economically weaker classes are encouraged to apply for Merit cum Means scholarship, Leela Poonawala scholarships etc.
- Counselors motivate slow learners to improve their performance.

**2.3 Teaching-Learning Process**

**2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)**

- An academic calendar is made before the start of every semester.
- Every faculty member makes his/ her lesson plan and this is submitted to HOD and communicated to the students through MOODLE.
- Evaluation blue print in the form of regular class tests, mock tests and mock practical tests are conducted and weak students are counseled to do better. Remedial classes are conducted if needed.
- Weekly teaching schedule is prepared by every department and displayed on all the notice boards.
- On line mock tests and quizzes are conducted.

- Subject wise experts from industry and other institutes like IIT are invited to deliver lectures and conduct workshops to help the teaching learning process.
- Digital study material is uploaded on “MOODLE” and made available to all students.
- Along with traditional methods modern ICT methods are used to make teaching and learning more effective.
- The practicals/term work is progressively evaluated.

### **2.3.2 How does IQAC contribute to improve the teaching –learning process?**

Inputs regarding teaching learning are obtained by way of interaction among faculty of all departments.

Uniform strategies are planned at college level for all the departments during these meetings. Brain storming sessions are held each semester.

### **2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?**

In order to make the teaching learning process more student centric, college provides opportunities for :-

#### **Interactive learning**

- Teachers deliver lectures using an interactive tutorial discussion format.
- Practice tests are available on MOODLE.

#### **Collaborative learning**

- Mini projects are assigned to a group of 3-4 students from first year itself.
- Students are encouraged to participate in project competitions at intra and inter college level.
- Students are encouraged to join Robotics club, OSS club, BAJA-SUPRA club to build different projects and participate in different competitions.

#### **Independent learning**

- College has a well stocked library with latest books, journals and digital section.
- Wi-Fi is available in laboratories and hostels.
- Access to NPTEL videos.
- Departmental Library is maintained to avail reference books and digital resources to students.
- Online MOOC courses like *Coursera* are available to students.

### **2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?**

- Institution conducts “Tech-Aakriti” and “Solutions” annual intra and inter college competitions which stimulate critical thinking, creativity and scientific temper among the students.

- Activities and participation in national level competitions like SUPRA-BAJA, ROBOTICS, TECHNO-CHAMP help the students to develop creative technical approach.
- Students are given innovative projects to inculcate the creativity and critical thinking ability in them.
- Through student chapters of professional bodies (CSI, IEEE, IETE), various opportunities of competitions are made available to students.
- Competitive national level exams like NCAT, NNSC are organized at college to improve the critical thinking of students.

**2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.**

- NPTEL lectures are made available to students.
- Learning material is available on “MOODLE” e learning platform.
- Mock tests are conducted on “MOODLE” e learning platform.
- Students are motivated to enroll for on-line courses like NPTEL, MOOC etc. and due credit is given to them through college level CCCBMS (Co-curricular Credit based Marking system) system at college level.
- E books, e journals are made available in central library.
- Access to IEEE and ACM digital library is made available.
- College has recently acquired NKN connectivity. Video conferencing facility with other premier colleges will commence shortly.

**2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?**

- Expert lectures by Industry persons are conducted from time to time.
- Industrial visits are organized for students.
- All faculty members update themselves by way of attending seminars, workshops, STTP relevant to their field of interest.
- Every dept conducts Guest lectures, workshops, conferences and industrial visits which are reflected in semester wise calendar of the college.
- Faculty is motivated to undergo various advanced training programs conducted by reputed institutes like IITs, etc.
- Students are motivated to present their research work through paper publications at various conferences/journals at national and international level.
- Students are also motivated to take up internship programs at national and international level.
- Students refer to NPTEL lectures.

- NKN connectivity providing additional 100Mbps has been procured by the college.
- MOODLE e- learning platform is used by teachers.
- Wi-Fi is available in classes and hostels.
- Workshops/Seminars/Guest Lectures are organized.
- Staff is encouraged to attend Faculty Development Programmes and Short Term Training Programs.

**2.3.7 Detail (process and the number of students benefitted) on the academic, personal and psycho-social support and guidance services (professional counselling/mentoring/academic advise) provided to students?**

**Counseling process-**

Every teacher has a batch of 15 students under him/her. The teachers interact with his/her counseling batch on weekly basis and ensure a one to one interaction 4 – 5 times in a semester. Teacher counsels each student and monitors his/ her progress. If in some cases a need of professional counseling is felt then the student is counseled by a professional counselor. Every semester 4-6 students are counseled by professional counselor.

**Student mentor system –**

Four or five first year students are placed under mentorship of a second year student. This student provides the first year student guidance and advice after college hours. The second year student is carefully selected based on recommendation of his/her counselor regarding suitability as a mentor.

**2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?**

- Faculty members use videos, animation and visual aids during their lectures.
- Additional Demonstration experiments are conducted in laboratories and classes.
- 3D models are used to explain topics in subjects like engineering graphics.
- Teaching material is made available on line through MOODLE to all students for all the courses, thus student-teacher interaction is made effective.
- Students are asked to refer to research papers for seminar presentations and projects.
- Some innovative student projects are implemented in the college to obtain benefit of resource and energy saving etc.
- Teachers are encouraged to attend workshops and seminars on pedagogy of teaching methods in house and outside.

**2.3.9 How are library resources used to augment the teaching-learning process?**

- Sufficient number of text books and reference books are available in the library for completion of curricular requirement.
- Journals and magazines are available in online and offline format.
- All reference books for the subjects are made available through central and departmental library.
- Research papers and journals (on line/off line) are accessible to all students and faculty. Students utilize these to deliver their presentations on seminars and projects.
- "Turnitin" software for plagiarism check has been procured.
- Students are asked to give seminars on new technologies / different topics using resources available in the library.
- Students are asked to use the library resources to identify project titles in second, third and final year.
- "Book Bank scheme" whereby, first ten students of each batch are issued with their complete set of syllabi recommended books.
- Student Library committee members interact with all students and convey their suggestions to the Library in charge who takes action to satisfy these requirements as soon as possible.

**2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.**

Yes.

- Teachers take extra classes if required for timely completion of syllabus.
- Time table of one week is rescheduled if required to ensure syllabus completion.

**2.3.11 How does the institute monitor and evaluate the quality of teaching learning?**

- Automated student feedback is taken twice during every semester.
- Institute also takes feedback from employers, parents and alumni.
- Relevant corrective measures are taken by concerned faculty members.
- Faculty is motivated through Best result award and Best teacher award.
- Extensive result analysis is done and is used to improve the methods of teaching.

## **2.4 Teacher Quality**

**2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum**

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	02	01	02	02	00	01	08
M.Phil.						01	01
PG			07	02	24	27	60
Temporary teachers							
Ph.D.							
M.Phil.							
PG					07	07	14
Part-time teachers							
Ph.D.							
M.Phil.							
PG							

Staff recruitment:

- As per AICTE, UGC, DTE and rules Savitribai Phule Pune University rules.
- Additional requirement of staff is met by selection through college level committee, Principal and Director.

Retention strategies:

- Career Advancement Scheme (CAS) is implemented.
- Institute sponsors faculty for paper presentation at conferences.
- Faculty is allowed to pursue higher studies.
- Best Result and Best Teacher award.

**2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.**

- Program curriculum is set by university (SPPU) which revises the curriculum periodically to include new developments in the field.
- Faculty members update themselves according to new addition/revisions in the syllabus.
- Subject wise experts from industry and other institutes like IIT are invited to deliver lectures and conduct workshops to help the teaching learning process.
- Students are motivated to enroll for on-line courses like NPTEL, MOOC.
- Motivating Faculty members for higher studies.
- Developments in latest fields like - Cloud Computing, Data Analytics, Hadoop, mobile computing etc are covered by Guest Lectures and workshops conducted by experts.

- Staff are encouraged to attend training programs (STTP) organized by IITs / Industries.
- Lectures from experts are organized for students/staff in the department itself.
- Enhanced Industry-institute interaction measures like industrial visits, 60% sponsored projects, internships.

#### **2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.**

**Nomination to staff development programs during last four years is summarized below :**

<b>Academic Staff Development Programmes</b>	<b>Number of faculty nominated</b>
Refresher courses	03
HRD programmes	18
Orientation programmes	33
Staff training conducted by the university	44
Staff training conducted by other institutions	75
Summer / winter schools, workshops, etc.	53

**Faculty Training programs organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning**

<b>S. No.</b>	<b>Details of faculty development program</b>	<b>Number of programs</b>
1	Teaching learning methods/approaches	16
2	Handling new curriculum	08
3	Content/knowledge management	08
4	Selection, development and use of enrichment materials	06
5	Assessment	02
6	Cross cutting issues	05
7	Audio visual aids/ multimedia	02
8	OER's	-
9	Teaching learning material development, selection and use	03

**Percentage of faculty**

<b>S. No.</b>	<b>Details</b>	<b>Percentage of faculty</b>
1	invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies	21
2	participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies	91
3	presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies	89

**2.4.4 What policies/systems are in place to recharge teachers? (e.g.: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)**

- Few teachers are adjunct/visiting faculty at other universities.
- Few teachers are invited as external examiners to other universities.
- PhD Policy – to motivate and support teachers to complete doctoral program. As per this policy
  - One day leave per week permitted for completing course work
  - Financial support for attending conferences/workshops
- Sponsorship upto 50% of registration fee to faculty for attending conferences/workshops.
- Sponsorship upto 100% of registration fee to faculty for presenting papers/posters in conferences/workshops.
- Financial support as well as infrastructural facilities are provided to the faculty for doing various online training certification programs.
- Every department is provided with a research budget.

**2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.**

Nil.

**2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?**

Online feedback from students twice every semester. Teachers are evaluated by the students on their - communication skills, ability to explain the subject, regularity in conducting classes, clarity in presentation, teaching methodology, attitude towards students, interest created in the subject and ability to maintain class discipline. Teachers use the feedback index and constructive suggestions to improve upon their teaching skills. Wherever required teacher is counseled by HOD.

## **2.5 Evaluation Process and Reforms**

### **2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?**

- Academic calendar gives the dates of examination.
- AIT website has a link with examination timetables.
- Departmental notice boards, laboratory notice boards and hostel notice boards display schedule of examination.
- Rules and regulations regarding evaluation of student through progressive assessment are discussed in workshops conducted by university and communicated to students
- All Faculty members accordingly prepare Progressive Assessment Report and performance of students in these reports are shown to the students.

### **2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?**

- University has introduced online examination at first year level from 2012 and at second year level from 2013. The online examination is conducted in two Phases of 25 marks each.
- A minimum passing in theory and online exam is introduced from 2014.
- At third year and final year level in-semester internal examination with 30 marks weightage has been introduced from 2014.
- In keeping with these, institute has introduced mock online tests and class tests to prepare the students to face these examinations.

### **2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?**

- Online University examinations are conducted by the institute as per schedule.
- All departmental Computer labs were upgraded for effective conduct of online exams.
- New First year computer center with 50 computers and CCTV facility has been created.
- Mock online and practical exams are conducted by institution to prepare students for the university examination.
- All class rooms and labs are covered with Wi-Fi connectivity.

- Various online Courses are attended by students and faculty.

In view of revised syllabus, new labs with required software and hardware specifications/equipments are developed by the departments.

#### **2.5.4 Provide details on the formative and summative assessment approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.**

##### **Formative assessment**

The goal of formative assessment is to monitor student learning to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. Formative assessments help students identify their strengths and weaknesses and target areas that need work and help. Faculty members recognize where students are struggling and address problems immediately.

Approaches adopted for conducting the assessment are as follows -

- a) Regular question answer sessions during class
- b) Summarizing the lecture
- c) Quiz
- d) Surprise test
- e) Class tests
- f) Mock online test
- g) Mock oral and practical tests
- h) Assignments
- i) Tutorials
- j) Continuous Assessment of course work (theory+lab)

##### **Summative assessment**

The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against some standard or benchmark

Approaches adopted for conducting the assessment are as follows -

- a) Online exam results
- b) In-semester exam results
- c) End semester results
- d) Practical exam results

Students are counseled for academic improvement, based on their performance in online and end semester exams, as compared to University rank holders and records of previous batches of the college.

#### **2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioural aspects, independent learning, communication skills etc.)**

- Internal assessment of term work is done progressively throughout the semester and students are informed about the weightage given to regularity in submission, behavioral aspects, attendance, independent learning etc at the beginning of the course.
- To improve student's behavioral aspects, independent learning and communication skills, college has introduced CCCBMS(Co-Curricular Credit based Marking System).

- Honor code is also followed for peer imposed controls on student behavior.

**2.5.6 What are the graduate attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?**

- The Institute's graduate attributes are given out in the vision and mission statement. Each department also has their own specific vision and mission statements.
- These are prominently displayed in the academic block to make the students aware of the graduate attributes they need to develop during their stay at the institute.
- The college strives for excellence in providing the right environment for development of the laid down attributes.
- In addition to academics, many co-curricular events and programs are conducted with a view to attain these attributes in our students.
- Large number of value added courses are conducted.

**2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?**

- University evaluation grievances are submitted through the Chief Examination Officer/Student Section to the University in required format.
- University redresses these grievances.
- Grievances regarding internal evaluation are communicated by student to the HOD who enquires into the matter with concerned teacher.
- Suggestion boxes are mounted outside office of each HOD for students to communicate grievances.
- College level Grievances Committee also resolves different complaints raised by the students, if they are of a grave nature.

**2.6 Student performance and Learning Outcomes**

**2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?**

Yes, the college has clearly stated Programme Educational Objectives, Program Outcomes, Program Specific Outcomes and Course Outcomes.

- Programme Educational Objectives, Program Outcomes and Program Specific Outcomes displayed on website.
- Course Outcomes are displayed in laboratories and key locations in college.
- Faculty members make the students aware of the same from time to time.
- Course Objectives/Course Outcomes are published in the syllabus of the University.
- Mapping of Course Outcomes versus Program Outcomes and Program Specific Outcomes is done by subject teacher.
- Attainment of Course Outcomes and mapping with gaps is done in order to identify corrective actions required.

**2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.**

- Result analysis of every semester is done at college level, departmental level and by individual teacher.
- Parents can check marks of ward on college website and SIS (Student Information System).
- Every department sends messages and progress reports to parents at the end of every semester. It ensures that students attend lectures and practicals regularly.

### **RESULT ANALYSIS**

Result Analysis for the last four years is given below:-

#### **FIRST YEAR RESULTS**

<b>First Year (FE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	290	293	293	291
No. of students Passed	252	272	274	261
No. of students Failed/ATKT	38	21	19	30
% Pass	86.89	93.15	93.86	89.69
% above first class	60.00	73.72	83.95	85.91

**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

<b>Second Year (SE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	122	120	119	122
No. of students Passed	85	82	105	100
No. of students Failed/ATKT	37	38	14	22
% Pass	69.67	68.33	88.23	81.96
% above first class	36.88	34.16	70.05	68.03

<b>Third Year (TE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	61	116	125	126
No. of students Passed	35	90	103	97
No. of students Failed/ATKT	26	26	22	29
% Pass	57.37	77.58	82.4	76.98
% above first class	36.06	34.48	49.6	56.34

<b>Final Year (BE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	58	57	129	120
No. of students Passed	57	56	117	112
No. of students Failed/ATKT	1	1	12	08
% Pass	98.24	98.24	90.69	93.33
% above first class	82.75	94.73	72.86	83.33

**COMPUTER ENGINEERING**

<b>Second Year (SE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	60	57	60	59
No. of students Passed	33	40	48	57
No. of students Failed/ATKT	27	17	12	02
% Pass	55	70.17	80	96.61
% above first class	31.66	52.63	66.66	91.52

<b>Third Year (TE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	62	58	57	60
No. of students Passed	44	47	42	54
No. of students Failed/ATKT	18	11	15	06
% Pass	75.86	81.03	73.68	90.00
% above first class	40.32	24.13	52.63	56.66

<b>Final Year (BE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	59	57	62	57
No. of students Passed	48	49	53	53
No. of students Failed/ATKT	11	08	09	04
% Pass	98.24	98.24%	90.69	92.98
% above first class	67.79	63.15	50.00	82.45

**MECHANICAL ENGINEERING**

<b>Second Year (SE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	60	60	60	60
No. of students Passed	45	53	51	59
No. of students Failed/ATKT	14	7	9	01
% Pass	73.77	88.33	85	98.33
% above first class	47.54	53.33	71.66	76.67

<b>Third Year (TE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	61	63	58	62
No. of students Passed	37	42	49	54
No. of students Failed/ATKT	22	21	09	08
% Pass	66.66	66.67	84.48	87.09
% above first class	26.22	52.38	48.27	53

<b>Final Year (BE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	57	61	61	59
No. of students Passed	49	49	53	56
No. of students Failed/ATKT	08	12	08	03
% Pass	86	80.32	86.88	94.91
% above first class	71.92	68.85	70.49	91.52

**INFORMATION TECHNOLOGY**

<b>Second Year (SE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	59	58	62	61
No. of students Passed	51	46	50	53
No. of students Failed/ATKT	08	12	12	08
% Pass	86.44	79.30	80.65	86.89
% above first class	37.29	53.45	66.13	75.41

<b>Third Year (TE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	61	62	59	64
No. of students Passed	35	49	49	54
No. of students Failed/ATKT	26	13	10	10
% Pass	57.38	79.03	83.05	84.38
% above first class	36.07	41.94	54.24	64.06

<b>Final Year (BE)</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
No. of students Appeared	63	58	61	57
No. of students Passed	56	53	58	54
No. of students Failed/ATKT	07	05	03	03
% Pass	88.89	91.38	95.08	94.74
% above first class	87.30	87.93	85.25	87.72

The pass percentage at final year has been above 90% for the last four years across all programmes. Moreover, a steady increase in the pass percentage and

percentage of students scoring more than 60% marks is seen at the first, second and third year level of all programmes.

### **2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?**

Program wise learning outcomes and course outcomes are clearly stated. The strategies for achievement of these are -

- Weekly Training programs are made and displayed on the departmental notice board.
- State of the art infrastructure is provided in the department by way of-
  - i. Updation/Up-gradation of Laboratories and computational facilities in order to fulfill changing syllabus requirements of University.
  - ii. Coverage of contents beyond syllabus and corresponding laboratory development through research grants.
- Value added courses /Workshops and Guest lectures are organized to provide the additional knowledge in existing syllabus as well as to cope up with recent trends in technology.
- E-learning methodologies like MOODLE and Edvelop are adopted to improve the teaching learning and assessment strategies.
- Students utilize facilities for their mini-projects, final year projects and co-curricular, technical activities like Robotics, SUPRA-BAJA Competitions, TECHNOCHAMP Competition, and TECHFEST etc.
- All these activities help the students to strengthen their fundamentals about various subjects thereby enhancing their employability potential
- Students develop technical interaction among academic fraternity by way of participation in:-
  - Technical competitions conducted by various institutes like IITs, NITs and other colleges.
  - Technical Paper presentations, project competitions.
  - Mini projects
- Staff develop technical interaction among academic fraternity by way of :-
  - Faculty development programs conducted by various institutes like IITs, NITs and other universities.
  - Active participation in various university activities like periodic syllabus revision, syllabus implementations workshops, paper setting and assessment etc.
  - Attending seminars, conferences, workshops arranged by various institutes/industries.
- Students learn to develop a holistic approach while working on various projects.
- They also develop the soft skills like effective communication, team work and leadership qualities which are necessary for their future career.
- Starting of post graduate course in Mechanical engineering -Design, is one step towards developing the institute as a centre of excellence.

**2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?**

**Training and Placements Cell**

Student placements are done through the Training and Placements cell under the Training and Placements Officer. Overall student placements are in the range of 81 to 92% for the last four years.

Placement details are as follows :-

Overall Placements

Year of Completion of Program	Number Registered	Number Placed		Highest Salary	Lowest Salary	Average Salary of all Students Placed
		No.	%			
2011-12	228	209	92	Rs 10.20 lakh	Rs 1.80 lakh	Rs 3.70 lakh
2012-13	219	177	81	Rs 16.00 lakh	Rs 1.80 lakh	Rs 4.05 lakh
2013-14	276	235	85	Rs 10.25 lakh	Rs 2.00 lakh	Rs 4.32 lakh
2014-15	270	249	92	Rs 15.00 lakh	Rs 2.30 lakh	Rs 4.50 lakh

2. Department wise Placements

(a) Computer Engineering

Year of Completion of Program	Number Registered	Number Placed		Highest Salary	Lowest Salary	Average Salary of all Students Placed
		No.	%			
2011-12	56	51	91	Rs 10.20 lakh	Rs 3.00 lakh	Rs 4.12 lakh
2012-13	53	50	94	Rs 16.00 lakh	Rs 1.80 lakh	Rs 4.23 lakh
2013-14	53	43	81	Rs 10.25 lakh	Rs 2.40 lakh	Rs 5.19 lakh
2014-15	54	53	98	Rs 15.00 lakh	Rs 2.50 lakh	Rs 6.15 lakh

(b) Electronics & Telecommunication Engineering

Year of Completion of Program	Number Registered	Number Placed		Highest Salary	Lowest Salary	Average Salary of all Students Placed
		No.	%			
2011-12	57	53	93	Rs 5.80 lakh	Rs 3.00 lakh	Rs 3.44 lakh
2012-13	54	45	83	Rs 7.46 lakh	Rs 2.40 lakh	Rs 4.16 lakh
2013-14	108	89	82	Rs 6.74 lakh	Rs 3.00 lakh	Rs 4.20 lakh
2014-15	110	99	90	Rs 15.00 lakh	Rs 2.50 lakh	Rs 3.80 lakh

(c) Mechanical Engineering

Year of Completion of Program	Number Registered	Number Placed		Highest Salary	Lowest Salary	Average Salary of all Students Placed
		No.	%			
2011-12	55	49	89	Rs 5.16 lakh	Rs 1.80 lakh	Rs 3.44 lakh
2012-13	55	33	60	Rs 5.29 lakh	Rs 1.80 lakh	Rs 3.81 lakh
2013-14	56	50	89	Rs 10.25 lakh	Rs 2.00 lakh	Rs 3.80 lakh
2014-15	55	47	86	Rs 6.68 lakh	Rs 2.30 lakh	Rs 3.70 lakh

(d) Information Technology Engineering

Year of Completion of Program	Number Registered	Number placed		Highest Salary	Lowest Salary	Average Salary of all Students Placed
		No.	%			
2011-12	60	56	93	Rs 10.20 lakh	Rs 3.05 lakh	Rs 3.80 lakh
2012-13	57	49	86	Rs 7.46 lakh	Rs 2.40 lakh	Rs 3.90 lakh
2013-14	59	53	90	Rs 9.30 lakh	Rs 2.50 lakh	Rs 4.51 lakh
2014-15	51	50	98	Rs 15.00 lakh	Rs 2.50 lakh	Rs 4.33 lakh

### Entrepreneurship Development Cell

To develop a spirit of entrepreneurship in our students entrepreneurship cell has been formed under the Training and Placement Officer.

- Functions of Entrepreneurship Development Cell are :-
  - To organize Entrepreneurship awareness camps, entrepreneurship development programs, faculty development programs and skill development programs in the institute.
  - To initiate and guide minimum five innovative student projects each year for new product development.
  - To organize business plan competition every year.
  - To arrange interaction with alumni entrepreneurs and create a mentorship program.
- Following activities were carried out in last three years:-
  - Guest Lectures/ Motivational sessions by successful entrepreneurs.
  - Guest Lectures by entrepreneurial societies like MITCON, NEN etc
  - Sessions by alumni entrepreneurs.

### Innovation and incubation cell

The Innovation and incubation cell was established in 2014

Activities of this cell during the last year were as follows:-

Event	Description
Enterprethon' 14	Founders of Housing.com, Betterlabs, MruiseOn, Eoad and Student Forum participated in event
Idea Pitching sessions	Different Innovative ideas were discussed with the students and many students started working on those ideas
Workshop	Workshop was conducted on How to start Startup

Companies Incubated from this cell

S. No	Company	Location
1	Taxeeta	Pune
2	Carigiri	Pune, Bangalore
3	Mally	Pune

Other activities carried out to enhance placements, innovation, entrepreneurship and research aptitude among students are -

- Student placements are done through the Training and Placements cell. Student placements are consistently above 85% for the last four years.
- Training cell activities – AMCAT, soft skills training, GD-PI training.
- Project competition jointly organized by AIT and Alumni – Amalgam.
- Student participation in various inter college project competitions.
- R&D Cell has been established to promote research and development.

- Students are motivated to take up research oriented projects from Govt. organizations like Southern Command, R&DE, and Bharat Forge etc. and other Pvt. Companies.
- Projects: Students participate in various inter college project competitions.
- OSS club activities.
- Robotics club activities.
- Supra / Baja club activities.

### **2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?**

Student performance and learning outcomes are analyzed by regular

- Result analysis.
- Parents feedback analysis.
- Employers feedback analysis.
- Alumni feedback analysis.
- Based on discussions in Friday HOD meetings, GB meeting LMC meetings and IQAC meetings, new strategies and measures in teaching learning process are introduced.
- Remedial classes and additional assignments are conducted for academically weak students.
- Academically weak students are counseled and motivated by the Counselors /Teachers/HODs/Principal and Senior students.

### **2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?**

To ensure the achievement of learning outcomes following measures are carried out on regular basis

- Monitoring attendance - daily, monthly and semester wise
- Counseling of weak students
- Assignments evaluation
- Class test and mock tests evaluation
- Remedial lectures
- Make up classes
- Conducting viva at term end
- Conducting Mock Test at term end
- Subject expert lectures from other organizations and institutes are organized.

### **2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.**

Yes, the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning.

Mid course correction based on performance of students in online and midterm examination.

- This involves change in teaching strategy by teacher if indicated in student feedback.
- Counseling of weak students.
- Extra assignments to weak students.
- Extra coaching to weak students.

Value added courses like Spoken Tutorials by IIT Mumbai are conducted to increase the proficiency of students in programming skills.

Boot camps on difficult subjects such as Object Oriented Modeling and Design have been organized.

**Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.**

Teaching learning process has to be interactive to generate the desired learning outcomes. Each lesson plan displayed on MOODLE, includes a few fundamental questions which are discussed with students in each lesson like a tutorial discussion towards this purpose.

It is planned to introduce “Edvelop”, a cloud based program which has all features of MOODLE and in addition will enable each student's performance in class tests and assignments to be displayed in a continuous manner.

**CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION****3.1 Promotion of Research****3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?**

The institution does not have a recognized research center of SPPU or any other organization.

**3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.**

Yes, the college has an R&D Cell to monitor and address issues of research and Development.

Composition of R&D cell

S. No.	Name of faculty	Department	Position
1	Dr. Sangeeta Jadhav	IT	In charge
2	Dr P B Karandikar	E&TC	Member
3	Dr R Jayadevan	IT	Member
4	Dr Anita Jain	E&TC	Member
5	Mr N K Bansode	Computer	Member
6	Mr Pankaj Dorlikar	Mechanical	Member

The R&D Cell has laid down its objectives and goals:

**Objectives :**

- Up-gradation of laboratories through MODROB proposals of AICTE and MHRD.
- To develop research proposal for funding from DST / AICTE / UGC / MHRD.
- To organize Seminars / Conferences/ Workshops in the relevant areas of Science and Engineering.

**Short Terms Goals:**

- To conduct national and international conferences.
- Motivate faculty and students to participate in Seminars/Conferences/Workshops and further share his/her knowledge and experience with faculty and students and submit write up to R&D cell.
- Motivate faculty and students to present/publish Research paper in reputed National / International journals and submit a copy to R &D Cell representative in respective department.
- Motivate faculty and students to design and fabricate and implement viable functional projects for the benefits of institution.
- Publish in Journals of science and engineering with ISBN.
- To organize UG-CON (project competition for all students).
- To file one patent/department/year.
- 

**Long Term Goals:**

- Establish Centres of Excellence in various areas of expertise.

Since the formation of the R&D cell the number of research proposals granted have increased.

Year	Number of Research proposals granted	Total amount (Rs)	Agency
2013-15	07	10.27 lac.	BCUD, SPPU
2014-16	06	7.7 lac.	BCUD, SPPU
2014-15	Grant for conduct of international conference	0.52 lac.	BCUD, SPPU
2014-15	Travel Grant	1.67 lac.	BCUD, SPPU
2015-17	07 submitted	Under process	BCUD, SPPU

### 3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?

**§autonomy to the principal investigator** – Yes, the principal investigator is given full autonomy for implementing his/her research project.

**§timely availability or release of resources** – Yes, Funds are made available to the principal investigator as soon as they are received from the funding agency.

**§adequate infrastructure and human resources** – Existing infrastructure and human resources are made available to the principal investigator.

**§time-off, reduced teaching load, special leave etc. to teachers** – The teachers utilize the free time between lectures for conducting their research. Permission for Official duty leave, “OD” is given for any project related work such as, paper presentation, attending seminars/workshops, testing and analysis, purchases, availing library facilities at another institute, preparation of budget expenditure reports etc

**§support in terms of technology and information needs** – Teacher has full access to all the technology and information infrastructure available in the college.

**§facilitate timely auditing and submission of utilization certificate to the funding authorities** - Official duty leave, “OD” is given for any preparation and submission of utilization certificate to the funding agency.

**§any other** - Institute provides financial support for filing patents.

### 3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

The Institution fosters scientific temper and research culture in students from the first year of engineering. The first year students submit a study type mini-project which requires them to study a selected topic and suggest solutions /

future scope in the area. This makes the student aware of the need for literature survey before tackling a research problem. From second year onward, students work on mini-projects specific to their branch of study. The final year project work is carried out as per the guidelines of University. Every year a project competition “Amalgam” (jointly sponsored by AIT and the Alumni association of AIT) is held and prizes amounting to Rs 1 lac. are awarded to deserving projects. About 60% of the projects are sponsored by industry and are based on industry applications.

Students submit the findings of their research work to various journals and conferences and the college provides funding to the selected students for presenting their papers in conferences.

Industrial visits, seminars, workshops and guest lectures are organized to bridge the gap between academia and industry.

College has Technical club, Robotics club, Open Source Software club, SUPRA-BAJA club and Maths club which conduct events like guest lectures and competitions throughout the academic session. The technical club organizes an annual intra- and inter- college technical events competition – “Tech-Aakriti” and “Solutions” respectively. Under these, competitions such as coding, paper presentation, model making, Robo wars, website development, circuit design etc. are conducted and keenly contested by the students.

Our students are also motivated to participate in various technical inter-college national and international level competitions in events like, paper presentation, robotics, etc. College provides funding for participation in SUPRA, BAJA and ROBOCON competitions.

Students are encouraged to go for internships, and College grants special leave of absence of upto one month to students undergoing summer internship/ training at IISc., IITs’ and companies like Microsoft etc.

In order to ensure participation of every student in co-curricular technical activities the college has devised a co-curricular credit based assessment system (CCCBAS) and it is proposed that score of the student be communicated to recruiting companies visiting the campus in addition to the academic performance of students to aid the process of recruitment.

College has started an "Innovation and Incubation cell" to foster innovative ideas and nurture them by providing necessary support and resources till they reach the startup level. The cell organizes idea pitching sessions, workshops and innovative project competitions.

Students are members of professional organizations like CSI, IEEE, IETE and RSI. Technical events are regularly conducted under these organizations.

### **3.1. 5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)**

A large number of faculty carry out research projects which have funding from state and national level bodies.

Details of ongoing Research projects

<b>S. No.</b>	<b>Name of faculty</b>	<b>Title of Research Project</b>	<b>Collaborative/Individual</b>
1	Dr.B.P.Patil/Dhanashree Patil/Pragati Rana	Performance evaluation of indoor navigation system	Individual

2	Mr. G R Patil/Mrs. Renuka Bhandari	Study and Implementation of MIMO based wireless communication system	Individual
3	Dr.B.P.Patil/Mrs. Rajashri Suryawanshi	Performance evaluation of large MIMO	Individual
4	Mrs. Geeta Patil Mr. Rahul Desai	A ZigBee based intelligent self adjusting sensor and energy management system for home automation	Individual
5	Mrs. Rupali Bagate Dr.(Mrs.) Sangeeta Jadhav	Navigation System Using Optical Flow Detection Technique for Visually Impaired	Individual
6	Mr. Gajanan Walunjkar Mr.Yuvraj Gholap	Man Machine Interaction using Fuzzy Recognizer for application automation & authentication with Performance Analysis	Individual
7	Prof. R. B. Patil	Mechanical properties of composites	Individual
8	Mr. J.D. Patil	Heat Transfer in channel	Individual
9	Mr S. Gaikwad	Heat Transfer in mini channel	Individual
10	Ms D. Zanpure	Computational Fluid Dynamics	Individual
11	Prof. R. B. Gurav	Heat Transfer in enclosure	Individual
12	Mr S. R. Dhore	Web service composition	Individual
13	Dr. Seema Tiwari	Synthesis and characterization of biodegradable polymeric nanocomposites for anti-cancer drug delivery systems	Individual
14	Ms Swati Kulkarni	Seismic resistant steel beam to column joints	GUJCOST/ DST
15	Dr P. B. Karandikar	Use of Ultracapacitor in Indian 2 Wheelers	Individual

## Details of recognized guides ( ME/ PhD )

S. No.	Name of Faculty	Research area	No of students
1	Dr B. P. Patil	Wireless Communication, Biomedical Signal Processing	07 (Ph.D)
1	Dr. Sangeeta Jadhav	Signal & Image Processing	02 (Ph.D)
2	Dr. J. B. Sankpal	Mechanical Design	03(Ph.D)

		Engineering	
3	Prof. S. M. Gaikwad	Thermal Engineering	02(M.E.)
4	Dr. R. Jayadevan	Pattern Recognition	01 (Ph.D )
5	Dr. P. B. Karandikar	Electrical Engineering	04( Ph.D) 02 (M.E.)

**3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.**

**2011-12**

S.No.	Title	Resource person	Audience (Staff and students)
1	The Changing Perception of the Internet, Web technologies and Trends.	Mr. Gautam Rege, Josh, Pune	SE(IT)
2	Enterprise Architecture and Management	Mr. Abhijit Devgirikar	BE(IT)
3	Journey as Technology Entrepreneur	Mr. Anup Tapadia Founder Touchmagix	SE(IT) & TE(IT)
4	Latest Technology Trends and Career Opportunities	Mr. Rajesh Vartak CTO-SEED Infotech Ltd. Pune	SE(IT), TE(IT) & BE(IT)
5	Software testing – New Career Opportunities.	Mr. Nilesh Deshmukh – Team Lead HSBC Software Solutions India	BE(IT)
6	RF measurements (Seminar)	Mr. Waman Joglekar Director, Synergy Measurement Technologies Pvt. Ltd., Pune	T.E (E&TC)
7	Workshop on Electronic Mini Projects	Mr. V B Bapat Technical Consultant Pune	S.E (E&TC)
8	Workshop on Matlab (under IETE)	Prof. Sushma Shelke Asst. Prof. PICT, Pune	T.E (E&TC )
9	VLSI Design; Current Trends (Guest Lecture-under IETE)	Ms. Divya Padmanabhan R&D Lab Intel , Bangalore (AIT Alumni)	BE (E&TC )
10	Workshop on Electronic Mini Projects	Mr. V B Bapat Technical Consultant Pune	S.E( E&TC)

11	Workshop on Multisim based Simulation	Mr. Ravikumar Trident Techlabs	S.E (E&TC)
12	Recent Trends in Mobile services & Billing	Mr. Pankaj Nirale Redknee India Pvt. Ltd.	B.E (E&TC )
13	Electronic Mini Projects (Students Project Inspection)	Mr. V B Bapat, Technical Consultant Pune	S.E (E&TC)
14	Information & Network Security	Brig.(Retd) R Subramaniam, BVDU, Pune	BE (E&TC )
15	EMI/EMC In Military Applications	Lt. Col J S Hada MCTE, Mhow	SE, TE & BE (E&TC)
16	Avionics	Lt. Col. JB Bhaskar, MCEME , Secunderabad	TE & BE (E&TC )
17	GPS Guidance in Aerospace	Wg. Cdr D Adhikari, DIAT, Pune	SE & TE (E&TC )
18	Mobile Communication	Col Anupam Jhanji, DIAT, Pune	TE & BE E&TC
19	Mobile Communication Security	Brig(Retd) R Subramaniam, BVDU, Pune	SE & TE (E&TC )
20	Optical Fiber communication	Dr R K Prasad	SE & BE (E&TC)

**2012-13**

S. No	Title	Resource person	Audience (Staff and students)
1	A Methodical Approach to Research	Dr. J P Modak, Ex—Prof VNIT, Nagpur	SE(IT), TE(IT) & BE(IT)
2	Open Source	Dr. Deepak Shikarpur (IT Entrepreneur, Writer and Member IT Task Force Govt of Maharashtra)	SE(IT), TE(IT) & BE(IT)
3	Energy conservation and energy Management	Dr. Madhav Kane - Founder, Techno Mentor	SE(IT) & TE(IT)
4	Life in the SAP world	Mr. Satish Sarathy - Head, L&T Infotech	SE(IT) & TE(IT) , BE(IT)
5	Machine Learning	Dr. Parag Kulkarni	BE(IT)
6	Software Engineering	Dr. Shashikant Kelkar, IIT Mumbai	TE(IT)
7	Problem Solving	Mr. Gaurav Joshi,	SE(IT) & TE(IT)

		Persistent Systems Pvt. Ltd., Pune	
8	How Facebook Works?	Mr. Vijender Yadav, Propalms Network Solutions, Pune	SE(IT) & TE(IT) , BE(IT)
9	Research Methodologies	Dr. Uday Khedkar, IIT Mumbai	BE(IT)
10	Windows API	Asif Baharinwala, PTC Software, Pune	BE(IT)
11	Guest Lecture on “BE Project work”	Mr. Chandrashekhar Bharat Forge, Pune	B.E (E&TC)
12	National Workshop on “Signal and Image Processing using Lab view (SIPLV-2012)”	Mr. Sahil Singhla National Instruments, Pune	staff and TE & BE(E&TC)
13	Guest Lecture on “Armament Electronics”	Dr.Virendra Kumar, Joint Director, ARDE, Pashan, Pune.	BE(E&TC)
14	Guest Lecture on “Radar Principles & Applications”	Prof. Narendra Gupta, Ex. Faculty, DIAT, Pune.	T.E & B.E (E&TC )
15	Guest Lecture on “Use of Real-time Simulation Platform for Development of Defecse /Aerospace Embedded System”	Mr. Vikas Puri, Country Manager, Realtimewave, India.	T.E & B.E (E&TC )
16	Paper Presentation on ” Man and Machine”	Robotics Club	Open to all students from various colleges
17	Guest Lecture on “Linux & Embedded Systems”	Mr. Kuldeep Singh, Persistant, Pune	B.E (E&TC )
18	Guest Lecture on “Linux & Embedded Systems”	Mr. Amit Jayesh, Oasis Technologies, Pune	B.E (E&TC )
19	Structural Composites	Dr. Ramadass Chenamsetti, R&DE, Dighi	TE (Mech)
20	Gear Transmission & Manufacturing	Mr. Neeraj Tiwari	SE (Mech) & TE (Mech)
21	Material Selection &	Mr. Sunil P	SE (Mech) &

	Advanced heat treatment	Divekar	TE (Mech)
22	Industrial Bearings	Mr.Rahul Deshpande	SE (Mech) & TE (Mech)

**2013-14**

S. No	Title	Resource person	Audience (Staff and students)
1	Early History of FORTRAN.	Dr. Uday Khedker, IIT MUMBAI.	SE(IT)
2	Annotating, Indexing and Searching the Web Entities & Relationships.	Dr.Soumen Chakrabarti	TE (IT) and TE (COMP)
3	PHP Workshop	Mr. Jayant V Desale, Technocorp Solution Pvt. Ltd	TE (IT)
4	LINUX Workshop	Mr.Yogeshwar Shukla	SE (IT)
5	Named Entity Recognition and Extraction Guest Lecture	Dr. Sachin Pawar, Researcher at TRDDC Pune.	TE (IT) and TE (COMP)
6	Robotics for Military Applications Guest Lecture	Mr.Alok Mukherjee, Scientist 'F', R&DE, Dighi	SE(All Branches).
7	JAVA Workshop	ATS Infotech Ltd	TE (IT)
8	NNSC Workshop	Mr.Kashish Sachdeva and Mr.Nishant Puri	FE and SE (All branches)
9	OPENGL & Animation Tool Workshop	Mr. Girish Ghate, ATS InfoTech Ltd	SE (IT)
10	.NET Workshop	Microsoft IT Academy, ATS Infotech Ltd.	TE (IT)
11	Recent Trends in Research Work Guest Lecture	Dr. Aditya Abhyankar, Researcher at TRDDC Pune.	SE (IT) & TE (IT).
12	Microsoft .NET FDP Program	Microsoft IT Academy, ATS Infotech Ltd.	Faculty
13	Recent Trends in Manufacturing	Mr Shahariyar Hussain, Sr Vice President, Godrej Boyce Manufacturing Co	S E (Mech) T E (Mech)

		Ltd.	
14	Microcontroller & Applications	Mrs. Surekha K S, Associate Professor (E & TC), Army Institute of Technology, Pune	S E (Mech)
15	Thermal Power Plants in India	Mr. Arvind Paranjpe, Asstt. GM, TATA Power Co., Trombay (Chembur)	S E (Mech) F E (Mech)
16	Advanced Techniques of Corrosion Prevention.	Prof. Sunil Deshpande, MIT COE., Pune	S E (Mech)
17	Industrial Bearings	Mr Rahul Deshpande, Asst Manager, Reliability Maintenance Institute, SKF (I) Pvt Ltd, Chinchwad, Pune	S E (Mech) T E (Mech)
18	Design Failure Mode Analysis, R & D etc.	Mr. Abhijeet Chinchorkar, Manager, High Performance Global Consultants Pvt. Ltd., Baner, Pune	T E (Mech)
19	Theory& Practice of Design & Engg.; 2. Value Engg.- R & D Tool for Product Design & Development	Mr. Yashwant Sakhardande – Sr. Vice president – D&E- ThyssenKrupp Industries India. Mr. Nitin Gawhane Head- Learning & Development, ThyssenKrupp Industries India.	T E (Mech) B E (Mech)
20	Linux system admin	Sagar Shrivastava	SE/ TE (Comp )
21	Java workshop	NekTeck Team	TE (Comp )
22	QT workshop	University teachers team	Faculty of SPPU
23	One day Workshop on “Linux based ARM development”.	Mr.Ravishankar, Mr.Nagmahesh	BE (E&TC)
24	One day Workshop on “Embedded C based ARM development”.	Mr.Nagmahesh	BE (E&TC)
25	One day Workshop on “Proteus Simulation Tools”.	Mr.AvinashPatil	SE (E&TC)
26	Guest Lecture on “Future of Messaging”	Mr.Mayour	SE, TE and BE (E&TC)

27	Seminar on “Parallel Computing”	Mr.Nikhil Jotwani	TE and BE (E&TC)
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**2014-15**

S No	Title	Resource person	Audience (Staff and students)
1	Oracle and Software Engineering: IBM Workshop	Oracle Corporation Ltd.	BE(IT)
2	Discovering the Science of Computer Science Guest Lecture	Dr. Maitreya Natu, Researcher at TRDDC Pune.	SE (IT), TE (IT) and BE (IT) Students
3	QT Framework Workshop	Mr. Vikrant Chandekar	SE (IT)
4	.NET Course Programming Course	Microsoft IT Academy, ATS Infotech Ltd.	TE (IT)
5	Basics of VHDL Programming Invited Lecture	Mr. Avinash Patil, AIT, Pune	SE(IT)
6	Basics of MongoDB Guest Lecture	Mr. Gautam Rege from Josh Software	TE(IT)
7	Big Data and Hadoop Workshop	Bitwise Infosystems	BE(IT)
8	Cloud Computing Workshop	Mr. Paresh Sahasrabudhe	TE(IT)
9	CSI Faculty Development Program in association with AIT-CSI Student Chapter	Mr. Tushar Kute	Intercollege Faculty Members
10	Emerging Trends on High Performance Computing or Super Computing Guest Lecture	Mr. Ryan D’Souza , Country Manager, Hyperscale with HP India.	SE(IT) & FE
11	Mongodb workshop	Rashmi Thakare	TE (Comp )
12	Coding standards	Surendra Singh	SE (Comp )
13	Python/perl programming	Amit Wankhede	SE (Comp )
14	Apple iPhone development	Anshuman Sen	TE (Comp )
15	Guest Lecture on “Embedded C”	Mr. Chowdhury Prashant	TE (E&TC)

16	Guest Lecture on “Hybrid Model & Analysis of Transistors”	Mr. Satish Narkhede	TE (E&TC)
17	Workshop of RSI on “Robotics Technologies” on Science Day	Mr.Alok Mukherjee, Scientist ‘G’ DRDO Vishal V Singh ,Scientist ‘D’, DRDO Dilip J Mawana, Scientist ‘D’, DRDO M K Pathak ,Scientist’ E’ Kathika Roy ,Scientist ‘E’ Altay MA Baig, Scientist’ E’, DRDO S S Dhol, Professor, COEP Dr.PK Pal Professor Scientist BARC, Mumbai Dr. DJ Das, Hitech Robotics Pvt. Ltd	SE and TE (E&TC)
18	Seminar on “Internet Of Things”	Mr Ankur (Gill Instruments)	TE (E&TC)
19	Workshop on “CUDA short term course”	I Bridge Consultancy	SE, TE and BE (E&TC)
20	Engg. Challenges in Indigenous Rocket Development	Dr. Himanshu Shekhar, Jt Director, HEMRL(DRDO),Pune	TE (E&TC)
21	Computational Fluid Dynamics (CFD) – An Overview	Mr. Milind Kulkarni, Node Element Consultants	T.E (Mech)
22	Opportunities in CAE	Mr. N. Shelke, Business Head, CAD/CAMGuru, Pune.	B.E (Mech)
23	Automotive Seating system design	Mr. Ameya Khambete, Head (Training), CAD/CAMGuru, Pune.	B.E (Mech)
24	Advances in Automotive Technology	Mr. Devdutta Chandavarkar, Vice President, Mercedes-Benz India Private Limited	S.E (Mech) and T.E (Mech)
25	FEA for Crash Analysis	Mr. Nachiket Phadke, ELENO Engg. Learning Center, Pune	B.E (Mech)
26	Ethanol – a renewable & sustainable auto-fuel	Mr. B. H. Shrikanth	S.E (Mech)
27	Design process in Automobile Industry	Mr. Adnan Khan, Manager, Zest Technologies, Pune	T.E (Mech)
28	Engg. Challenges in	Dr. Himanshu Shekhar,	T.E (Mech)

	Indigenous Rocket development	Jt. Director, HEMRL(DRDO), Pune	
29	FEA Techniques in Automobile Industry	Mr. Apoorv Bapat, Specialist, Team Leader (FEA), Altair, Pune	S.E (Mech) and T.E (Mech)
30	Engg. Challenges in manufacturing sector	Mr. Abhay Pendse, Asstt. V.P., Lawkim Motors Group, Godrej & Boyce, Shirwal, Pune	S.E (Mech) and T.E (Mech)

### 3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Specialized Research Area	Name of Faculty
Signal & Image Processing	Prof. Dr.(Mrs.) Sangeeta Jadhav
Supercapacitors	Dr P B Karandikar
Computer Networking, Ad Hoc	Mr. Rahul Desai
Algorithm	Ms. Vaishali Ingale
Machine Learning	Ms. Ashwini Sapkal
Security	Ms. Geeta Patil
Machine Learning	Ms. Gajanan Walunjkar
Security	Ms. Savita Manglore
Thermal Engineering	Ms. J. D. Patil , Mrs. D. A. Zanpure , Mr. S. M. Gaikwad , Mr. U. V. Avasarmol , Mr. R. S. Gurav
Design Engineering	Prof. Dr. J. B. Sankpal, Mr. R. B. Patil , Mr. Dorlikar , Mr. Y. V. Patel
Production Engineering	Mr. V R Kulkarni, Mr. A A Ramgude
Pattern Recognition	Dr Jayadevan
Wireless Communication	Prof. Dr B P Patil, Mr G R Patil
VLSI	Dr Anita Jain, Mr Avinash Patil
Embedded Systems	Mrs K S Surekha, Ms S D Oza Mr Avinash Patil, Mrs Sushma Wadar, Mrs Shilpa Pawar
Nano Technology	Prof. Dr B P Patil
Communication System	Mr D G Auradkar , Mr G R Patil, Mrs Snehal Marathe
Signal Processing	Mrs K S Surekha, Mrs Rajashree Suryawanshi,
Power Electronics	Mr J B Jawale, Mrs Preeti Warrior
Microwave Engineering	Mr D G Auradkar , Mr V K Karra
Data Structure, System Programming	Mr G R Patil, Ms S D Oza, Mrs Shilpa Pawar, Mr Girish Kapse
Image Processing	Mr J B Jawale, Mr Girish Kapse
Optical Fiber Communication	Mr D G Auradkar , Mr V K Karra

### 3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

AIT invites eminent researchers to visit and interact with the students. Every year AIT Foundation day is celebrated and eminent persons from industry and research institutes are conferred with Lifetime Achievement Award, Illustrious Personality of Indian Industry Award and Successful Young Entrepreneurs Award. Keynote address of the National/international workshops organized by AIT are given by eminent personalities from respective fields. Details of eminent personalities who have visited and interacted with our students during the last four years are –

S. No.	Eminent scientist/Industrialist	Topic	Occasion
1	Hon. Dr. A P J Abdul Kalam	Motivational talk	Engineer's Day Address , 15 September 2014
2	Dr. P. K. Sinha, CDAC , Pune	Becoming Professionally successful	International Conference CCSEIT-2014, 8 August 2014
3	Dr. Rahul Harshe Scientist 'E' CRC, R&DE (E) Dighi, Pune.	Composite Materials and Processing and Nanocomposites	Mechanics of laminated Composite Structures, MLCS, 2015
4	Dr. Guruprasad P. J. Asst. Professor, AED , IIT Bombay.	Micro mechanics of textile composite for Aerospace application.	Mechanics of laminated Composite Structures, MLCS, 2015
5	Dr. Mira Mtra Asso, Professor, AED, IIT Bombay	Spectral element formulation application.	Mechanics of laminated Composite Structures, MLCS, 2015
6	Dr. Ramdas Chennamsetti CRC, R&DE (E) Dighi, Pune.	Finite element formulation of laminated composite plate.	Mechanics of laminated Composite Structures, MLCS, 2015
7	Dr Parag Kulkarni, Founder, EKLaT research, Pune	Knowledge Innovation strategy for teaching learning	National Conference on Signal and Data Processing (NCS DP_2015)
8	Mr VV Mujumdar, Founder & Director of Institute of Applied Research	Component of Research in Academia.	AIT Foundation Day 2015
9	Mr Achyut Godbole, MD, Softexcel Consultancy Services (Well-known international author)	Challenges of new age technology.	AIT Foundation Day 2015
10	Mr Shrikant Badve, Chairman & MD, Badve Group of	My Journey in Entrepreneurship.	AIT Foundation Day 2014

	Companies		
11	Dr Shridhar Shukla, Co-Founder & MD, GS Lab (P) Ltd	Effect of Technology in Today's world.	AIT Foundation Day 2014
12	Mr Pramod Chaudhari, Executive Chairman, Praj Industries	Trends in Manufacturing.	AIT Foundation Day 2013
13	Mr Rajinder Singh Bhatia, Executive VP & CEO (Defence) Bharat Forge Ltd	Opportunity in Defence Sector.	AIT Foundation Day 2013
14	Mr Vikram Sinha, VP Operations (PVBU), Tata Motors	India Automotive.	AIT Foundation Day 2013
15	Mr Kailash Katkar, Chairman & CEO, Quickheal	New Avenues in Security.	AIT Foundation Day 2012
16	Mr Anup Tapadia, Founder, Touchmagix	Think different.	AIT Foundation Day 2012
17	Mr SV Joshi, Founder & Chairman, Nichrome Ltd	Learning through failure.	AIT Foundation Day 2012
18	Mr Suhas Baxi, MD & CEO, Demag Cranes	Challenges in manufacturing industries	AIT Foundation Day 2012
19	Mr Mukund Toke, Certified Energy Auditor, Bureau of Energy Efficiency	Non- conventional sources of energy.	AIT Foundation Day 2012
20	Dr Ganesh Natarajan, Vice Chairman & CEO, Zensar	Success Story of Zensar.	AIT Foundation Day 2012
21	Mr Kishor Wikhe, Vice President, Capgemini	Origin of IT industry and way ahead.	AIT Foundation Day 2012
22	Mr SP Ranade, Director, MITCON & Chief Associate, Associated Business Services	Role of MITCON in entrepreneurship development	AIT Foundation Day 2012

**3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?**

No faculty has availed sabbatical leave for research activities.

**3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)**

- Student achievers are congratulated by Director and Principal, in the monthly Extended Student Council Meeting (ESCM). This helps in creating awareness about the research activities in the student community as well as motivating other students. Congratulatory letters are sent to their parents.
- Some of the student research projects have been implemented in the college, for example-
  - “Flush and light monitoring system in washroom” was successfully developed by students under the guidance of Prof Avinash Patil. The system was successfully installed in the campus in the year 2013 and is functioning properly till date.
  - ‘Wireless Mouse’ was successfully developed by third year students under the guidance of Prof Avinash Patil in the year 2013 and is used in the classrooms.
  - A Prototype of Solar panel cleaning system has been developed by third year student under the guidance of Dr B P Patil, Prof J B Jawale, Prof V K Karra in the year 2015.
- College has also established an Innovation and incubation hub to foster and nurture creative ideas and guide them to start-up level. These start-ups are publicized in local newspapers. Some of the successful start-ups are :-
  - a. Taxeeta (<http://www.taxeeta.com/>) - Pune
  - b. Caregiri (<http://www.caregiri.com/>) Running in two Cities – Pune and Bangalore
  - c. Mally (<https://mallyweb.herokuapp.com/>) – Pune

### 3.2 Resource Mobilization for Research

#### 3.2.1 What percentage of the total budget is earmarked for research?

Give details of major heads of expenditure, financial allocation and actual utilization.

2011-12

S. No.	Major heads of expenditure	Allocated (Rs in lacs.)	Utilized (Rs in lacs.)
1	Library Journals	7.85	6.84
2	Staff and student participation in Conferences/workshop/seminar/Paper presentation and Student research projects.	3.6	1.69
3	BAJA- SUPRA and Robotics activities	2.4	2.34
4	Total	13.85	10.87
5	% of academic expenses		4.82%

2012-13

S. No.	Major heads of expenditure	Allocated (Rs in lacs.)	Utilized (Rs in lacs.)
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1	Library Journals	12.31	12.76
2	Staff and student participation in Conferences/workshops/seminars/Paper presentation and Student research projects, patent filing expenses.	4.32	2.61
3	BAJA- SUPRA and Robotics activities	5.9	5.9
4	Total	22.53	21.27
5	% of academic expenses		10.11%

**2013-14**

S. No.	Major heads of expenditure	Allocated (Rs in lacs.)	Utilized (Rs in lacs.)
1	Library Journals	15.00	18.52
2	Staff and student participation in Conferences/workshops/seminars/Paper presentation and Student research projects, patent filing expenses	8.55	7.89
3	BCUD, Savitribai Phule Pune University research projects.	6.57	6.57
4	BAJA- SUPRA and Robotics activities	9.0	3.61
5	Total	32.55	36.59
6	% of academic expenses		25.06%

**2014-15**

S. No.	Major heads of expenditure	Allocated (Rs in lacs.)	Utilized (Rs in lacs.)
1	Library Journals	18.50	20.57
2	Staff and student participation in Conferences/workshop/seminar/Paper presentation and Student research projects, patent filing expenses.	9.95	8.16
3	BCUD, Savitribai Phule Pune University research projects.	9.42	9.42

3	BAJA- SUPRA and Robotics club	10.00	6.94
4	Total	38.45	45.09
5	% of academic expenses		23.12 %

**3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?**

No seed money has been availed by faculty, but institute sponsors faculty for filing patents and presenting papers in conferences.

**3.2.3 What are the financial provisions made available to support student research projects by students?**

Financial provision for student projects is made in every year's budget for each department. Details for the last four years are given above under 3.2.1

**3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.**

Students and faculty members undertake inter-disciplinary research work targeted at national level competitions like Supra-SAE, Supra-Baja, Asia, Robocon etc. Some of the successful projects are

S No	Event	Participating Dept	Awards
1	Baja- All terrain vehicle competition, 2011	SAE-AIT Collegiate Club	Most cost effective design, 2 <sup>nd</sup> position
	Baja- All terrain vehicle competition, 2013	SAE-AIT Collegiate Club	Most cost effective design, 1 <sup>st</sup> position,
2	Supra-Formula type vehicle. 2013	SAE-AIT Collegiate Club	Best virtual design (CAE award), 2 <sup>nd</sup> position,
3	Escalade, IIT Guwahati, 2014-15	E&TC and Mechanical (Robotics club)	2 <sup>nd</sup> Prize
4	Roboshuttle Striking, LD College of Engineering, Ahemdabad, 2014-15	E&TC and Mechanical (Robotics club)	3 <sup>rd</sup> Prize
5	Robo sumo, IIT Bombay	E&TC (Robotics club)	5 <sup>th</sup> position
6	Mechatron, IIT Bombay, 2014-15	E&TC (Robotics club)	10 <sup>th</sup> Position

**3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?**

- R&D cell is formed in all departments and is led by a faculty in charge. Guidelines are provided by the R&D cell to students and staff for carrying out the research work.
- Students and staff are provided the research facilities available in the laboratories. Special permission is given to students to work in laboratories and project rooms beyond college hours.

**3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If 'yes' give details.**

S No	Agency	Details of equipment/ software	Amount
1.	NVIDIA	GeForce GTX 680 Generic P2002-403 SKUOG Graphics Card- 3 kits	USD 2500 Kits worth Rs 100,000/-
2	NVIDIA	Tesla K20 5GB (P2081-A 01) Channel GK 110- 1 kit	Worth Rs 20,000/-
3.	Phytec	Cosmic – AM335x linux/android boards-10 kits	Rs 43,000
4	Gill Industries (Texas Instruments)	Gateway- 1 quantity, Node – quantity 2, Node – quantity 2, MSP430 Launch pad – 10 quantity	Kits worth Rs 50,000/-
5	AICTE (MODROB)	MODROB-CAD LAB	9,00,000/-
6	AICTE (MODROB)	Wear Friction Monitor, Four Channel FFT Analyzer	16,00,000/-
7	Gill Industries (Texas Instruments)	Internet of Things lab	1,00,000/-

**3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.**

The college is registered under UGC 2(f) and 12(B) since 2014-15. Faculty members are motivated to apply for research grants from various funding agencies, organizations and industry. Information regarding dates for application, eligibility criteria etc. is communicated to all departments by Principal through the R&D cell. Faculty is granted OD and TA, DA to present their proposals before funding agencies.

Nature of the Project	Duration Year From To	Title of the project	Name of the funding agency	Total Grant (Rs in lacs)		Total grant received till date Rs in lacs)
				Sanctioned	Received	
<b>Information Technology Department</b>						
Minor projects	2013--2015	A ZigBee based intelligent self adjusting sensor and energy management system for home automation	BCUD, SPPU	1.05	1.05	Total 2.65 lacs
	2014-2016	Navigation System Using Optical Flow Detection Technique for Visually Impaired	BCUD, SPPU	2.90	0.75	
	2014-2016	Man Machine Interaction using Fuzzy Recognizer for application automation & authentication with Performance Analysis	BCUD, SPPU	2.00	0.85	
<b>Mechanical Engineering Department</b>						
Minor Projects	2013-14	Mechanical Properties of Composites	BCUD, SPPU	1.20	1.20	Total 5.1 lacs
	2013-14	Heat Transfer	BCUD, SPPU	2.40	2.40	
	2014-15	Heat Transfer	BCUD, SPPU	1.50	1.50	
<b>Computer Engineering Department</b>						
Minor projects	2013-14	Web service composition using multiagent system	BCUD, SPPU	1.35	0.675	Total 0.675 lacs

<b>Electronics and Telecommunication Engineering Department</b>						
Minor projects	2011-2013	To develop a new efficient compression algorithm for electrocardioagram signals	BCUD, SPPU	1.0	1.0	Total 8.5 lakhs
	2011-2013	Designing of a CMOS based analog multiplier	BCUD, SPPU	2.0	2.0	
	2011-2013	RISC processor implementation	BCUD, SPPU	0.50	0.50	
	2011-2012	Low cost 12 lead ECG signal acquisition display and storage with telemetric compability	Inst. of Engineers	0.50	0.50	
	2013-2015	Study and Implementation of MIMO based wireless communication system	BCUD, SPPU	1.40	1.40	
	2013-2015	Performance evaluation of large MIMO	BCUD, SPPU	1.70	1.70	
	2014-2016	Performance evaluation of indoor navigation system	BCUD, SPPU	1.40	1.40	
<b>Applied Science and General Engineering Department</b>						
Minor Projects	2013-15	Synthesis and characterization of biodegradable polymeric nanocomposites for anti-cancer drug	BCUD, SPPU	1.8	1.5	Total 7.55 lacs
	2013-2015	Seismic resistant steel beam to column joints	GUJCOST/ DST	4.30	4.30	
	2014-16	Use of Ultracapacitor in Indian 2 Wheelers	BCUD, SPPU	2.0	1.0	

	2014-16	Innovative Earthing methods	BCUD, SPPU	1.5	0.75	
Major projects	-					
Interdisciplinary	-					
Industry sponsored	2013 - ongoing	Development of Ultracapacitors	Madhav Capacitors and Physics department SPPU	2.0	0.5	Total 1.5 lacs
	2013-2014	Study of hot rolled I beam sections	Jindal Steel and Power Limited	1.00	1.00	
Students' research projects	2012-13	Electric tricycle	Alumni association	0.25	0.25	0.25 lacs
Any other (specify)						

### 3.3 Research Facilities

#### 3.3.1 What are the research facilities available to the students and research scholars within the campus?

Name of Department	Research facilities
Information Technology	R&D lab, availability of Wi-Fi is 24/7
Mechanical Engineering TOM & DOM Lab.	Wear and Friction Monitor, Four Channel FFT Analyzer
Mechanical Engineering Heat Transfer Lab	Universal Data logger, Temperature Transducers.
Mechanical Engineering Workshop	Design and manufacturing of specified automobile
Computer Engineering	All Laboratories
Electronics and Telecommunication department	NVDIA/Phytec/Gill Instruments(Texas lab) R&D cell/Robotics Lab
Electrical lab	Ultrasonicator, hand press, ball mill, Digital storage oscilloscope

### 3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

College has introduced PG in Mechanical Engineering in 2015-16, and plans to introduce PG in Computer Engineering in 2016-17 and in Electronics and Telecommunication Engineering in 2017-18. An R&D Centre is planned in 2019-20.

College has separate budget for IT infrastructure development for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research.

Institute Provides yearly budget for research work to every department. College motivates faculty to apply for research grants from various government agencies. College collaborates with industries to develop infrastructural facilities for research.

NVIDIA lab (HP machines with CUDA enabled graphics cards) – is a parallel computing lab developed specially to cater to research in parallel computing domain.

### 3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities?? If 'yes', what are the instruments / facilities created during the last four years.

S. No.	Agency	Details of Research facilities	Amount (Rs)
1	AICTE (MODROB)	MOROB-CAD LAB	9,00,000/-
2	AICTE (MODROB)	Wear Friction Monitor, Four Channel FFT Analyzer	16,00,000/-
3	NVIDIA	Provided CUDA graphics Card, Technical Guidance for project development	USD2500 Kits worth Rs 100000/-
4	Phytec	Provided the ARM board for project development	Kits worth Rs 43,000/-
5	Gill Industries (Texas Instruments)	Provided the MSP430 for project development	Kits worth Rs 50,000/-
6	Gill Industries (Texas Instruments)	IOT kits	Rs 1,00,000/-
7	BCUD, Savitribai Phule Pune University	Flow meter, Data logger, D P sensor, Beagle board and Xbee components, Microwind software, Nanoboard(FPGA Spartan -3), LTE toolbox, kits for embedded systems, Abbe' refractometer, circulating water bath with heater, Ultrasonicator, Ball mill	Rs 5,35,000/-

8	Institution of Engineers	Financial support for carrying out Project work	Rs 50,000/-
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### 3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

- Wi Fi is available in library and hostels.
- Library memberships of JAIKAR Library of Savitribai Phule Pune University, ARAI library and MCCIA Library, Pune
- Students conduct research projects in R&DE.
- Various industries sponsoring various student projects allow the students to use their labs.(Bharat forge, ARDE, DRDO, Badve Engineers, etc).

### 3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

Large number of journals – print and online are available in library. The online journals can also be accessed from hostels and departments. "Turnitin" plagiarism software is available in library.

### 3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the college. For ex. Laboratories, library, instruments, computers, new technology etc.

S. No.	Agency	Details of Research facilities	Amount
1.	NVIDIA	Provided CUDA graphics Card, Technical Guidance for project development	USD2500 Kits worth Rs 100,000/-
2.	Phytec	Provided the ARM board for project development	Kits worth Rs 43000/-
3.	Texas Instruments	Provided the MSP430for project development	Kits worth Rs 50,000/-

## 3.4 Research Publications and Awards

### 3.4.1 Highlight the major research achievements of the staff and students in terms of

\*Patents obtained and filed (process and product) –

S. No.	Title of the Patent	Name of faculty	Name of students/other faculty	Application Number	Date of filing	Publication date
1	A method of digital watermarking	Dr (Mrs.) Sangeeta Jadhav	-	1563/MU M/2011 A	25/11/2011	07/06/2013
2	Method of manufacturing electrode for	Dr P. B. Karandikar		2858/MU M/2010	14/10/2010	07/01/2011

	supercapacitor					
3	Regenerative braking in electric two wheeler using supercapacitors	Dr P. B. Karandikar	Amit Singh, Raju Pal, Gary Singh, Anshuman Sar kar,	843/MU M/2011	23/03/2011	16/09/2011
4	Sandwich type supercapacitor making process	Dr P. B. Karandikar	Akshay Dekate, Atul Singh, N S Prasun	841/MU M/2011	23/03/2011	16/09/2011
5	Zigzag structured ultra-capacitor,	Dr. P. B. Karandikar	Shailendra, Akansha Dixit, Amal Paul, Hema Upriti	1442/MU M/2014	23/04/2014	16/09/2014
6	Intelligent self start unit using supercapacitor	Dr P. B. Karandikar	Akshay Dekate, Akansha Dixit	486/MU M/2015	16/02/2015	10/04/2015
7	Laboratory test setup for testing model of wind turbine	Dr P. B. Karandikar	Datta Chavan, Akansha Dixit, Avinash Gupta, Mehak Dhawal	485/MU M/2015	16/02/2015	10/04/2015
8	Zero turning radius vehicle using wireless steering and modified differential gear system	Dr P. B. Karandikar	Chandan Kumar Verma, Devesh Kumar Gour, Prateik N	2067/MU M/2014	26/06/2014	18/07/2014
9	Automobile hybrid braking system	Dr P. B. Karandikar	Chandan Kumar Verma, Devesh Kumar Gour, Prateik N,	2068/MU M/2014 A	26/06/2014	18/07/2014
10	A system and method for homography based hybrid mixture for rehab. engineering	Dr B. P. Patil	Dr A. Abhyankar, Dr K. Singh, T. Jadhav, A.Phadke	3544/MU M/2014	11/11/2014	-

**\*Original research contributing to product improvement –**

A Prototype of Solar panel cleaning system has been developed by third year student under the guidance of Dr B P Patil, Prof J B Jawale, Prof V K Karra in the year 2015.

**\*Research studies or surveys benefiting the community or improving the services -**

Research is being carried out by Ms Rupali Bagate and Dr Sangeeta Jadhav on navigator stick to help blind people.

**\*Research inputs contributing to new initiatives and social development**

“Flush and light monitoring system in washroom” was successfully developed by students under the guidance of Prof Avinash Patil. The system was successfully installed in the campus in the year 2013 and is functioning properly till date.

Software based projects developed by IT department are being used in college. for example, Student Information System (SIS) , Store management system, online admission form, are being used for data management. Also websites for Alumni, Placement cell, IEEE chapter etc. have been developed by the students under guidance of staff members.

**3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?**

The institute in collaboration with AIRCC have published proceedings of 4th International Conference CCSEIT -14 for which Dr Sangeeta Jadhav was one of the chief editors.

**3.4.3 Give details of publications by the faculty and students:**

**\*Publication per faculty**

S. No.	Name of faculty	Department	Number of Publications in last four years
1	Prof. S.R. Dhore	COMP	06
2	Prof. Jaydevan R.	COMP	05
3	Prof. N.K. Bansode	COMP	02
4	Prof. M.B. Lonare	COMP	01
5	Prof. V. Ganganwar	COMP	03
6	Prof. Sushama Shirke	COMP	04
7	Prof. Rushali S. Patil	COMP	02
8	Prof. Yogita Hambir	COMP	04

9	Prof. S.A. Lokhande	COMP	05
10	Prof. Anup Kadam	COMP	02
11	Prof. Nikita Gupta	COMP	06
12	Dr. B. P. Patil	E&TC	23
13	Dr. R. K. Prasad	E&TC	05
14	Mrs. Surekha K S	E&TC	21
15	Mr G R Patil	E&TC	12
16	Mr. D G Auradkar	E&TC	01
17	Ms. Shraddha Oza	E&TC	03
18	Mr. J B Jawale	E&TC	04
19	Ms.Sushma Wadar	E&TC	12
20	Mr. Avinash Patil	E&TC	09
21	Mr. Vijay Kumar Karra	E&TC	02
22	Mrs Renuka Bhandari	E&TC	06
23	Ms. Kishori Naik	E&TC	01
24	Ms. Manisha Nilkanth	E&TC	01
25	Mrs. Rajashree P. Suryawanshi	E&TC	01
26	Dr. Anita Jain	E&TC	02
27	Ms. Snehal Marathe	E&TC	01
28	Ms Dhanashri Patil	E&TC	05
29	Ms Pragati Rana	E&TC	04
30	Dr.(Mrs.) Sangeeta Jadhav	IT	19
31	Prof. Rahul Desai	IT	19
32	Prof. Vaishali Ingale	IT	12
33	Prof. Ashwini Sapkal	IT	10
34	Prof. Geeta Patil	IT	07
35	Prof. Gajanan Walunjkar	IT	14
36	Prof. Savita Manglore	IT	04
37	Prof. Yuvraj Gholap	IT	04

38	Prof. Nilima Walde	IT	04
39	Prof. Sandeep Samleti	IT	03
40	Prof. Rupali Bagate	IT	06
41	Prof. Seeta Yadav	IT	05
42	Prof. Aparna Joshi	IT	04
43	Prof. Archana Shelar	IT	05
44	Dr. J B Sankpal	MECH	09
45	Prof. R S Verma	MECH	01
46	Prof. J D Patil	MECH	13
47	Prof. U V Awasarmol	MECH	05
48	Prof. R B Gurav	MECH	10
49	Prof. A M Gadade	MECH	04
50	Prof. P M Purohit	MECH	07
51	Prof.S M Gaikwad	MECH	16
52	Prof. A A Ramgude	MECH	08
53	Dr P B Karandikar	ASGE	70
54	Ms. Swati Kulkarni	ASGE	20
55	Dr(Mrs.) Seema Tiwari	ASGE	07
56	Dr(Mrs.) Sujata Marathe	ASGE	02
57	Lt. Col.(Retd) Sanjay Karodpati	ASGE	02
58	Ms Mridula Chandola	ASGE	01

**\*Number of papers published by faculty and students in peer reviewed journals (national / international) last five years**

S No	Name of faculty	Number of publications in peer reviewed journals (National)	Number of publications in peer reviewed journals (International)	Number of publications in international databases*	Av. Citation index	Av. impact factor	SNIP	SJR
1	Dr B P Patil	02	19	04	0.58	0..23	0..65	0.11
2	Mrs Surekha K S	-	05	09	-	-	-	-
3	Mr G R Patil	-	04	04	0.64	0.84	0.64	0.27
4	Mr U V Awasarmol	-	1	1	-	2.54	1.923	1.49
5	Mr A M Gadade	-	3	3	-	0.87	1.2	0.9
6	Dr.Mrs.Sangeeta Jadhav	4	7	-	0.6	0.6	0.13	0.5
7	Mr. Rahul Desai	-	15	-	-	-	-	0.1
8	Mr. S.R. Dhore	-	02	-	2.5	4.58	-	-
9	Mr.. Jaydevan R.	-	04	-	18.9	1.69	-	0.07
10	Mr. N.K. Bansode	-	02	-	04	-	-	-
11	Ms. V. Ganganwar	-	03	-	-	2.32	-	-
12	Ms.. Sushama Shirke	-	04	-	-	2.08	-	-
13	Ms. Rushali S. Patil	02	-	-	-	-	-	-
14	Ms. Yogita Hambir	01	03	-	-	2.32	-	-
15	Ms. S.A. Lokhande	-	04	-	-	-	-	-
16	Mr.Anup Kadam	-	01	-	-	1.10	-	-
17	Ms. Nikita Gupta	02	04	-	-	-	-	-
18	Dr P B Karandikar	10	04	08	0.5	0.06	0.13	0.1
19	Ms S A Kulkarni	01	02	05	0.69	0.08	0.15	0.14

\*Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

\*Monographs – Nil

\*Chapter in Books with ISBN/ISSN numbers with details of publishers

S. No.	Name of Book	Name of author	ISBN/ISSN number	Publisher and year
1	Advances in structural Engineering: Mechanics	Prof A M Gadade	978-81-322-2189-0	Springer, 2015
2	Intelligent System in Science and information -2014	Dr. B P Patil Mrs. Surekha K S	ISBN 978-3-319-14654-6	Springer 2014
3	Advances in Structural Engineering	Kulkarni S A	978-81-322-2189-0	Springer, 2014

**\*Books Edited with ISBN/ISSN numbers with details of publishers**

Nil

**\*Books with ISBN/ISSN numbers with details of publishers**

S. No.	Name of Book	Name of author	ISBN/ISSN number	Publisher and year
1	Design of Machine elements-I	Prof R B Patil	978-93-5077-593-6	Techmax - 2015
2	Dynamics of Machinery	Prof R B Patil	978-93-5244-063-0	Techmax - 2015
3	Data Structure and Files (IT/COMP)	Vaishali Ingale	ISBN 938006490_x	Nirali Prakashan, Pune,2011
4	Data Structure and Files(E & TC)	Vaishali Ingale	ISBN 93808006492_6	Nirali Prakashan, Pune,2011
5	Artificial Intelligence (2008 Pattern)	Vaishali Ingale Ashwini Sapkal	ISBN 978-93-81595-27-5	Nirali Prakashan, Pune, 2012
6	Artificial Intelligence (2008 Pattern) for E&TC and Electrical Branch	Vaishali Ingale Ashwini Sapkal	ISBN 978-93-81962-89-3	Nirali Prakashan, Pune, 2012
7	Distributed operating System	Ashwini Sapkal	ISBN 978-9381962-85-5	Nirali Prakashan, Pune, 2012
8	Electromagnetics	Mr. Vijay Karra	ISBN:978-93-81962-75-6	Nirali Prakashan Pune, 2011
9	Signal Coding & Estimation Theory	Mr. G R Patil	ISBN:978-93-81962-64-0	Nirali , 2012
10	Data Structures & Algorithms	Mr. G R Patil	ISBN:978-93-83073-93-1	Nirali Publication, July 2013

11	Computer Networks-I	Mr. G R Patil	ISBN:978-93-83525-25-6	Nirali Publication, Sep 2013
12	Data Structures	Mr. G R Patil	ISBN:978-93-83525-50-8	Nirali Publication, Sep 2013
13	Data Communication	Mr. G R Patil	ISBN:978-93-81962-37-4	Nirali Publication, Jan 2014
14	Foundation of Computer Network	Mr. G R Patil	ISBN:978-93-83750-99-3	Nirali Publication, Jan 2014
15	Analog Communication	Mr. G R Patil	ISBN:978-93-83750-97-9	Nirali Publication, Jan 2014
16	Digital Communication System	Mr. G R Patil	ISBN:978-93-83750-73-3	Nirali Publication, Jan 2014
17	Computer Organization	Mr. J B Jawale	ISSN:938397120-7	Jan.2014
18	Digital Communication	Mr. G R Patil	ISBN:978-93-5164-135-3	Nirali Publication, June-2014
19	Information Theory & Coding Techniques	Mr. G R Patil	ISBN:978-93-5164-361-6	Nirali Publication, Nov 14

**\* h-index**

S. No.	Name of faculty	h index
1	Dr. B P Patil	5
2	Mr G R Patil	2
3	Dr. Jaydevan R.	7
4	Prof U V Awasarmol	2
5	Sangeeta Jadhav	3
6	Rahul Desai	2
7	Ashwini Sapkal	1
8	Dr Sujata Marathe	3
9	Dr P B Karandikar	4
10	Dr Seema Tiwari	4
11	Ms Swati Kulkarni	2
12	Ms Mridula Chandola	1

**3.4.4 Provide details (if any) of**

**\*research awards received by the faculty**

**\*recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**

Nil.

### **3.5 Consultancy**

#### **3.5.1 Give details of the systems and strategies for establishing institute-industry interface?**

- Institution has established an Industry-Institute Interaction cell. Two faculty members from each department are members of this cell.
- Every department conducts Industrial visits arranges Guest Lectures and workshops with industry experts to increase institute-industry interaction. MOUs have been signed with prominent industries in the area.
- College is a member of CII, Pune Chapter and is an active member of CII-III events under convener'ship of Director, AIT.

#### **3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?**

Consultancy increases the professional and academic experience of the staff members. It also creates and enhances the links between the institute and external organizations and increase the research opportunities, student recruitment and placement. It may also generate additional income for the staff member and the Institute as well as help in knowledge transfer for benefit of the community.

College has a stated consultancy policy as per which staff may engage in consultancy activity after taking their regular teaching load provided it does not conflict with the interests of the Institute. Accordingly, departments have been given a target to obtain 10% of academic expenses from consultancy. The policy also gives out the share of income for all staff working on the consultancy depending on whether it is pure consultancy or testing work.

The Director of the Institute is member of CII, and convenor of Pune chapter of CII. Various activities are carried out in partnership with industry under this chapter and the expertise available with the Institute is publicized in these events.

#### **3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?**

College encourages the staff to utilize their expertise for offering consultancy services. Institute has a laid down policy for disbursing the funds received from consultancy.

#### **3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.**

<b>S. No</b>	<b>Name of Institution/Industry</b>	<b>Nature of work</b>	<b>Department</b>	<b>Resources generated (Rs)</b>
1	Kaveri Realtors	Web site development	IT	1,20,000/-

2	National Board of Examination - Prometric	Providing networking and computational facility for conduct of entrance exam	Computer	4,50,000/-
3	Post graduate students of other institutes	Consultancy in Heat Transfer projects	Mechanical	8,500/-
4	Students from other institutes	Training on CFD	Mechanical	50,000/-
5	NET exam	Conduct of exam	E&TC	1,00,000/-
6	AWES, AIT	Energy saving in hostels	E&TC	2,00,000/-
7	M/s. Keerti Enterprises	Solar Panel cleaning system	E&TC	75,000/-
8	AWES, AIT	Energy saving LED lamp project for AIT campus	E&TC	3,00,000/-
9	AWES, AIT	Wi-Fi	Computer	20,00,000/-
10	AWES, AIT	Maintenance Cell	Computer	2,00,000/-

### 3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

College has a laid down policy for disbursing the income from consultancy. As per this policy

For Testing work:

- College share - 60%
- Staff share – 40%

For Pure consultancy work:

- College share - 40%
- Staff share – 60%

The staff share is further distributed as follows:

- Staff share :
- Teaching staff -- 75%
- Non teaching technical supporting staff -- 15%
- Non teaching office /admin staff -- 8%
- HOD --- 1.5%
- Principal –0.5%

### 3.6 Extension Activities and Institutional Social Responsibility (ISR)

**3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?**

The vision of our college is to provide the right environment for development of physical, intellectual, spiritual and emotional quotients in our students. Values of good citizenship are inculcated in our students by the teachers and student peer group. College has an AIT tenet and honor code for students that they have to abide by. The AIT tenet is prominently displayed in the main foyer and the honor code is uploaded on the college website.

For holistic development of students a large number of club activities are conducted evenly spaced out throughout the academic session.

AIT has a very active National Service Scheme (NSS) club and a large number of students are members of this club. They actively participate in various NSS activities with a lot of enthusiasm.

Some of the activities of NSS club are as follows:-

Visit to Orphanages and Boarding houses for under-privileged students:

Students along with the staff members visit nearby orphanages. College sponsors the gifts/medicines/provisions carried by the students to the orphanages. Along with the college, students and staff members also contribute towards the gifts carried to the orphanage. In addition to this organized interaction, students visit these orphanages on Sundays and other holidays to spend time with the kids.

Our students celebrate festivals like Rakhi, Diwali etc, with the children at the orphanages. Besides these festivals students also visit these orphanages on Independence day and Republic day. After attending flag hoisting on the college campus, the students and staff carry sweets for the children and spend quality time with the inhabitants of the orphanage.

Besides playing with the children, our students also help with their studies. Our students conduct classes at the orphanage on Sundays. They teach them elementary computer skills. For this they carry their laptops with them. They also help out with the basic Math, Science and English. Staff members donate towards the purchase of books for the children. The contribution of our students and staff is much appreciated by the managements of the orphanage and boarding house.

Visit to Old age home: Our students visit a nearby old age “Mother care Foundation” and spend quality time with the inhabitants. They also stay in touch with them on telephone to maintain the bonding.

Visit to Queen Mary Technical Institute (QMTI): QMTI is a central government organization which provides vocational training to soldiers disabled during service. Our students carry sweets for these ex-army personnel and interact with them. They entertain the inmates by singing and performing skits etc. Students in turn come back inspired and motivated by the undaunting spirit of these soldiers.

Blood donation camps: College collaborates with institutes like AFMC and NGO's like “Aadhar Blood bank” for conducting blood donation camps. We regularly conduct a blood donation camp each semester, on our campus. Our students enthusiastically donate blood and the AFMC team has been so impressed with the enthusiasm that they have given our students gifts like caps, T-Shirts, badges etc. and a memento in appreciation of the contribution of our college to this important cause.

Road safety awareness: College students have conducted a number of sessions on road safety at the nearby locality. Students prepared banners and placards

and with the help of local police and discussed the importance of following traffic laws with locals.

Tree plantation: Every year during monsoons we conduct a tree plantation drive. Over the years it has made our campus lush and green. We collaborate with Tata Motors and an NGO-Vanrahi for getting free saplings.

College facilitates student participation in programs related to social issues that are organized by various institutes in the city. College provides transport facility and registration fee to the students participating in these programs. Some of the programs in which our students have been participating were conducted by various organizations like Savitribai Phule Pune University, Young Investigator Network, Rotary Club of Pune, ISKON etc.

All these activities help in forming institution-neighborhood-community network and have made AIT recognizable in our neighborhood. All these student engagements contribute in making our students into good and responsible citizens along with their service orientation and holistic development. These activities develop the leadership and management qualities along with creating an awareness of social responsibilities.

### **3.6.2 What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?**

Extension activities for social cause are carried out through NSS club of our college. There is a staff in-charge who is assisted by a co-staff in-charge. We believe in giving responsibilities to students hence besides the teachers there are student secretaries who help staff members and coordinate with the students. A number of activities of NSS club are structured, i.e. the staff in-charge and the student secretaries take initiative to schedule and carry out the activities. Once inspired the students keep in touch with the staff in-charge and the students secretaries about various other activities, which they do on their own initiative. All activities are carried out under the guidance of the staff in charge who arranges for the necessary permissions and finance and also monitors the progress of activity.

The work of dedicated students is appreciated in the extended student council meets and they are given certificates of appreciation by the Director. The contribution and the initiatives taken by these students are read out during the student council meet thus inspiring other students. Congratulatory letters are sent out to each student's parents.

In order to increase student participation in these social activities and other co-curricular activities, a new system of co-curricular credit based assessment system is being introduced from the year 2015-16. As per this system in addition to academics performance each student will also be graded based on his/her participation in co-curricular activities like technical, cultural, sports, project work, internships discipline, attendance value added courses attended and NSS. This system will help develop employability skills as well as promote good citizenship values among students. Assessment of each student will be done by his/her counselor. This will help institution keep track of the overall development of every student.

### 3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

College web site is kept updated with the latest events taking place in the college. Photographs of various events conducted, appreciation / suggestion letters from parents and industry etc are put up on our college website.

Online student feedback both academic and administrative is taken twice in a semester. In addition suggestion boxes are installed outside departmental offices and hostels for suggestions from students/ other stakeholders.

Feedback from parents is also regularly taken. Regular parents meet is conducted and feedback from parents is collected. Since our college is a residential college and parents are residing all over India, not many parents are able to attend these meetings. To overcome this drawback, the counselors and heads of department stay in touch with parents telephonically and via email on a regular basis. Parents also meet faculty and management when they are in station and give informal feedback on overall performance and quality of the institution.

Regular SMS updates regarding performance of the ward are sent to parents. The parents can get information about ward's progress through – Parent login which is available on website using which parents keep track of students performance.

Annual alumni meet is held which is attended by our alumni with a lot of enthusiasm. Many of the participants are stationed in different parts of the world. A feedback is also collected from them. College has a registered Alumni association through which college takes inputs on key issues. There is also a website [www.alumni.aitpune.edu.in](http://www.alumni.aitpune.edu.in) where the alumni are free to comment and express their views. There are Regional Alumni Chapters also in Gurgaon, Hyderabad and Bangalore which meet every year and provide inputs to the college.

Employer feedback is taken by TPO and points for action are communicated to heads of dept and students.

### 3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

In the beginning of each year budget is allocated for different activities. The different activities are planned in consultation with the student secretaries. The details of activities over last four years are

#### 2014-2015

S.No	Activity	Date	Details	Budget (Rs)
1.	Model making competition	12-08-2014	Working models were of toys were made. Cash prizes were given to the top three models.	5000/-
2.	Independence day celebration	15-08-2014	Independence day. Students and staff made this event a success by singing patriotic	

	and visit to the orphanage		songs and giving motivational speeches. The celebrations in the college were extended to the nearby orphanages 'Renuka Shishugraha' and 'Annapurna Matha' a boarding school for under privileged students, where our students went with sweets to spend some time with the kids.	
4.	Workshop	19-08-2014	Two of our students, Taranjeet Kaur (SE) and Yuvraj Singh (SE) attended the Young Investigators Network Workshop in Mumbai. World renowned figures of Dr Amir Kafeer and Mr Amir Khan were part of the training.	1000/-
5.	Blood donation camp	03-09-2014	NSS organized a blood donation camp along with AFMC. 108 donors from amongst staff and students participated in this activity.	4500/-
6.	Orphanage Visit	31-10-2014	NSS volunteers visited the nearby orphanage and carried some gifts for the children.	2500/-
7.	Orphanage Visit	30-12-2015	NSS volunteers visited the nearby orphanage <i>Renuka Shishugraha</i> and carried some gifts for the children.	2500/-
8.	Orphanage visit	5-01-2015	A number of students of our college donated an amount between Rs 1 to Rs 10/- and collected more than Rs 6000/- . They bought things needed by orphanage and donated the same.	-
9.	Essay writing competition	10-01-2015	Students participated in Essay writing competition on the topic "changing trends in public day celebrations"	1000/-
10.	Invited talk	12-01-2015	Mr Ravi Nair of global shaper foundation had an interactive session with our students on internet censorship.	-

11.	Republic day celebrations	26-01-2015	Republic day was celebrated with a lot of enthusiasm. The celebrations in the college were extended to the near by orphanage 'Renuka Shishugraha', where our students went with sweets to spend some time with the kids.	-
12.	Blood donation camp	22-02-2015	NSS organized a blood donation camp along with a Aadhar blood bank, Dhankawadi. 117 students donated blood in this event.	3900/-
13.	Orphanage visit	02-04-2015	A number of student and staff of our college donated and collected an amount of Rs 7548/- . The amount was used to purchase gifts for the visits.	-
	Old age home visit and visit to QMTI	07-04-2015		
14.	Teaching at Annapurna Matha' a boarding school for under privileged students,	2014-15	A group of our students had been visiting the Matha on most of the Sundays through out the year and helping the children with their maths, science and English skills. They also carried their lap top and taught the children basics of computers. Our students also celebrated the festival of Rakhi and Diwali with them. Staff and students contributed towards the books and gifts that were distributed in the Matha.	-
15.	"Swacch Bharat Abhiyan"	22-26 June 2015	Awareness drive , cleanliness drive and cleaning of neighborhood	-
16.	International Yoga day	22 June 2015	Students along with staff participated in yoga day	-
17	World Environment Day	06 June 2015	Joint activity with Global Shapers organization (NGO) in which Students distributed paper shopping bags prepared by women in slum areas to shoppers in nearby mall.	-

## 2013-2014

S.No.	Activity	Date	Details	Budget (Rs)
1.	Model making competition	11-08-2013	Models were made of toys which could be created out of trash. Cash prizes were given to the top three models.	5752/-
2.	Tree Plantation	14-08-2013	25 saplings were planted all over the campus. Director encouraged the students by planting a sapling.	599/-
3.	Independence day celebration and visit to the orphanage	15-08-2013	Independence day was celebrated with a lot of enthusiasm. The celebrations in the college were extended to the nearby orphanage 'Renuka Shishugraha' where our students went with sweets to spend some time with the kids.	-
4.	Workshop	16-08-2013	NSS volunteers attended a district level workshop titled 'Turning Point' conducted by University of Pune in association with MACA University.	-
5.	Orphanage visit	24-09-2013	NSS volunteers along with staff members visited orphanage <i>Renuka Shishugraha</i> . They carried some gifts for the children there and spent some time interacting and playing with them.	2500/-
6.	Blood donation camp	26-10-2013	NSS organized a blood donation camp along with AFMC. 120 donors from amongst staff and students participated in this activity.	4200/-
7.	Essay writing competition	02-01-2014	NSS organized an essay writing competition on life at AIT. The winners were given cash prizes.	1479/-
8.	MUNA	13,14-01-2014	4 of the volunteers participated in national level mock United Nations Assembly conducted by	3000/-

			Rotary club of Pune	
9.	Blood donation camp	16-01-2014	NSS organized a blood donation camp along with AFMC. 106 donors from amongst staff and students participated in this activity.	4500/-
10.	Republic Day Celebrations and visit to the orphanage	26-01-2014	Republic day was celebrated and the celebrations in the college were extended to the near by orphanage ' <i>Renuka Shishugraha</i> ' where our students, along with the Director and his wife, went with sweets and some basic necessities, to spend some time with the kids.	-
11.	Orphanage visit	24-09-2013	NSS volunteers along with staff members visited orphanage <i>Renuka Shishugraha</i> . They carried some gifts for the children there and spent some time interacting and playing with them.	2500/-

**2012-2013**

S.No	Activity	Date	Details	Amount (Rs)
1.	Tree Plantation	02-08-2012	80 saplings were planted all over the campus. Director encouraged the students by planting a sapling.	3,000/-
2.	Model making competition	10-08-2012	Models were made for ideas of green city. The Comp branch came first followed by E&TC A.	4,500/-
3.	Independence day celebration	15-08-2012	Independence day was celebrated with a lot of enthusiasm.	-
4.	Visit to orphanage	15-08-2012	Volunteers along with Director and his wife visited the orphanage <i>Renuka Shishugraha</i> , carrying some gifts.	4,000/-
5.	Blood Donation Camp	17-09-2012	Blood donation camp was conducted by AFMC in our college. 101 donors (students and staff) donated towards this noble cause. A	2731/-

			number of donors had to be turned down, as AFMC were collecting blood types, other than A+ve, and they have limited storing capacity.	
6.	Blood Donation Camp	22-01-2013	Blood donation camp was conducted by AFMC in our college. Both staff and students donated towards this noble cause, with 120 donors.	3600/-
7.	Republic day celebrations and orphanage visit	26-01-2013	Republic day was celebrated with a lot of enthusiasm. After celebrating in college, some of the students went to the orphanage <i>Renuka Shishugraha</i> carrying some gifts, to celebrate republic day with them.	-
8.	Orphanage visit	23-03-2013	20 students and staff members had visited orphanage " <i>Renuka Shishugraha</i> " carrying some gifts with them. The gifts, which included necessities like medicines, diaper, detergent etc and toys and books, were purchased from the amount sanctioned by the college and collection by both staff and students	4,000/-

**2011-2012**

S.No.	Activity	Date	Details	Amount (Rs)
1.	Tree Plantation Drive	26-07-11 27-07-11 08-08-11 09-08-11	NSS volunteers dug pits and on 28-07-11, about 150 trees were planted at various places on the campus. Principal motivated the students by planting a sapling himself. On 08-08-11 Brig (retd) Dhillon, Deputy MD, AWES, planted a sapling. On 09-08-11, Chairman AIT, Maj Gen P N Monga encouraged students by planting a sapling. Reps of DELOITTE also planted a sapling on 09-08-11.	3000/-

2.	Orphanage Visit	13-08-11	NSS volunteers visited orphanage 'Renuka Shishugraha Dighi. 25 volunteers accompanied by the staff in-charge interacted and spent time with the children there. It was a touching experience for everyone.	2000/-
3.	Independence day celebrations	15-08-11	Flag hoisting and patriotic speeches. Event was enthusiastically attended by students and staff and was followed by sweets distribution.	-
4.	Model Making Competition	27-08-11	Model making competition on the topic of water harvesting in AIT was conducted by NSS and prizes distributed to top three models.	5000/-
5.	De-addiction seminar	08-10-11	A seminar on de-addiction was conducted for students of AIT with the help of Mukhtangan. The seminar consisted of two sessions, the first was conducted by Mr Indrajeet on the topic of addiction of smoking and drinking, while the second session was conducted by Mr S. Bhagat, Coordinator, Mukhtangan, who spoke on the topic of computer addiction.	2455/-
6.	Blood Donation Camp	10-10-11	Blood donation camp was conducted by AFMC in our college. 122 Volunteers, which included both staff and students, donated blood.	2545/-

### 3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

Student and staff in charges are appointed to carry out the NSS activities. The Staff in charge, address students to motivate them and explain the reason for joining NSS. Similarly student secretaries and senior student do the same by sharing their experiences. A number of times, alumni are also called for the same. Our web sites are updated with the latest events organized along with pictures of the events. Similarly the notice boards also displays various events taking place in the college.

NCC activities are encouraged by the institute, and some of our students have attended NCC camps. However due to scheduled University examinations they were unable to complete the entire duration of the camp.

**3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?**

AIT is only for the wards of army personnel. Our administration keeps track of people from different economic backgrounds, by keeping a list of ranks of the parents. This way college identifies students who may require economic assistance. The college awards merit cum means scholarships and DLF scholarship (merit based) to students from this section. College is associated with Horizon – an NGO founded by ex-servicemen, and every year about ten students from economically weaker section are awarded Horizon scholarships by this organization. Horizon also awards scholarships to two girl students from economically weaker section. Also, we encourage girl students to apply for scholarship exclusively for girl students, that are awarded by local organizations such as, Leela Poonawala group, Persistent systems, Badwe group etc.

Student applicants for these scholarships are guided in the application process by a faculty co-coordinator and are provided with transport to go for form submission and interview.

**3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.**

Students carry out tree plantation and over the year they have seen the campus going greener. This makes them more aware of their environment and associated responsibilities.

Students volunteer to teach in orphanages and boarding houses for under privileged children. They realize the importance of good communication skills and knowledge of subject. Also they learn to interact at the level of the person in front of them.

When our students visit old age home and orphanages they also learn to interact with people from all walks of life.

Their visits to QMTI help them to empathize with the difficulties faced by people who may not be as fortunate as them. This makes them emotionally more sound and helps them put in their best.

**3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?**

Through its outreach programs college has developed linkages with orphanages, old age home and boarding school for under priveledged.

College collaborates with AFMC and NGOs for carrying out blood donation camps.

Students from neighboring schools – APS- BEG and KV - Southern Command come to visit our college and see the proceedings during our inter college Technical competition “Solutions”

People from various NGOs come to address our students, who in turn volunteer for their activities. Jammu and Kashmir students visit our college on an organized tour every year.

**3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.**

- *Anapurna ashram of Mauli Krupa Gayandan Aanayadan Sanstha*
- *Renuka Shishugraha*
- *Muktangan*
- AFMC
- Aadhar Blood Bank
- Mother Care Foundation
- Global shapers foundation
- Rotary Club, Pune
- Tata Motors (for supplying saplings)
- Vanrahi (for saplings)
- "Sarhad" foundation
- J&K students visits organized under arrangements with defense institutes

**3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.**

Memento from Armed Forces Medical College (AFMC)

Appreciation letter from- “Renuka Shishugraha” and “Anapurna Matha “

**3.7 Collaboration**

**3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.**

Information Technology Department

S. No.	Research Collaboration with Industry/institution	Benefits accrued
1	R&DE , Pune	Student projects
2	Army Head Quarters, Delhi	Student projects
3	HQ, Southern Command ,Pune	Student projects
4	D Y Patil College of Engineering	Research Guide
5	Bharati Vidyapeeth	Research Guide

## Mechanical Engineering

S. No.	Research Collaboration with laboratory/ Industry/institution	Benefits accrued
1	R&DE , Pune	Student projects
2	512 Army base workshop	Student projects, Internships
3	D Y Patil College of Engineering	Research Guide
4	RSCOE, Tathawade	Research Guide

## Computer Engineering

S. No.	Research Collaboration with laboratory/ Industry/institution	Benefits accrued
1	HeliumInk	Minor and Major projects
2	NekTek	Workshops
3	Propalm Networks	Open source activities
4	Visvesvaraya Technological University	Research Guide
5	JOSH	Student projects, Internships
6	G S Labs.	Student projects, Internships

## Electronics and Telecommunications

S. No.	Research Collaboration with laboratory/ Industry/institution	Benefits accrued
1	NVIDIA	Lab equipment
2	Bharati Vidyapeeth	Staff exchange
3	North Maharashtra University	Research Guide
4	Satyabhama University, Chennai	Research Guide
5	Sinhgad Institutes	Research Guide
6	ISM Dhanbad	Research Guide
7	Dr B A M University, Aurangabad	Research Guide
8	Bharati Vidyapeeth	Research Guide

**3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.**

## Information Technology Department

S. No.	Name of Organization	Contribution to development of institution
1	Microsoft	Value added courses
2	IBM	Value added courses
3	Oracle	Workforce Development Program

## Mechanical Engineering Department

S. No.	Name of Organization	Contribution to development of institution
1	Mahasainik Industrial Estate	Training for students and faculty
2	CD –adapco India Pvt, Ltd.	Training on CFD

## Computer Engineering Department

S. No.	Name of Organization	Contribution to development of institution
1	Red Hat	Training
2	HeliumInk	Minor and Major projects
3	NekTek	Workshops
4	Propalm	Open source activities

## Electronics and Telecommunications Department

S. No.	Name of Organization	Contribution to development of institution
1	Gill Instruments	Kits and microcontroller boards for student projects
2	Phytec. labs	Kits and microcontroller boards for student projects
3	DRDO	Sponsored projects to final year students
4	ARDE	Sponsored projects to final year students
5	Bharat Forge	Sponsored projects to final year students

**3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/new technology /placement services etc.**

S. No.	Industry/institution/organization	Contribution to infrastructure	Student and staff support	Placement services
1	NVIDIA	Laboratory development		
2	Phytec. labs	Laboratory development		
3	Microsoft		Value added	

			courses	
4	IBM		Value added courses	
5	Oracle		Value added courses	
6	Red Hat		Training	
7	HeliumInk		Minor and Major projects	
8	NekTek		Workshops	
9	Propalm Networks		Open source activities	
10	Mahasainik Industrial Estate		Training for students and faculty	
11	CD – adapco India Pvt, Ltd.		Training on CFD	
12	TCS		Campus connect	Campus recruitment
13	Accenture		Campus connect	Campus recruitment
14	Infostretch			Campus recruitment
15	Deloitte		Campus connect	Campus recruitment
16	PSL		Campus connect	Campus recruitment
17	BSNL EETP program		Campus connect	

**3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.**

S. No.	International / national conference	Resource person/ eminent scientist	Date , duration
1	International Conference CCSEIT-2014	Dr. P .K. Sinha, CDAC , Pune	8 – 9 August 2014
2	Workshop of RSI on “Robotics Technologies” on Science Day	Mr.Alok Mukherjeee, Scientist ‘G’ DRDO Vishal V Singh ,Scientist ‘D’, DRDO Dilip J Mawana, Scientist ‘D’, DRDO M K Pathak ,Scientist’ E’ Kathika Roy ,Scientist ‘E’ Altay MA Baig, Scientist’ E’, DRDO	28 Feb - 1 March 2015

		S S Dhol, Professor, COEP Dr.PK Pal Professor Scientist BARC, Mumbai Dr. DJ Das, Hitech Robotics Pvt. Ltd	
3	Mechanics of Laminated Composite Structures, MLCS 2015	Dr.Rahul Harshe Scientist 'E"CRC, RDE (E) Dighi,Pune. Dr.Ramdas Chennamsetti CRC,RDE (E) Dighi, Pune. Dr. Guruprasad P J Asst. Professor, AED ,IIT Bombay. Dr. Mira Mtra Asso. Professor, AED,IIT Bombay.	15 – 16 April 2015

**3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements ? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated-**

**a)Curriculum development/enrichment-**

S. No.	Name of Organization	Details
1	Red Hat	Training
2	HeliumInk	Minor and Major projects
3	NekTek	Workshops
4	Propalm Networks	Open source activities
5	Microsoft	Value added courses
6	IBM	Value added courses
7	Oracle	Value added courses
8	NVIDIA	Lab development
9	Phytec	Lab development
10	CD – adapco India Pvt, Ltd.	Training

**b)Internship/ On-the-job training –**

S. No.	Name of Organization	Details
1	Red Hat	Training
2	Eaglet	Internships, projects to students
3	Microsoft	Internships, projects to students

**c)Summer placement -** Microsoft, Bharat Forge, Oracle

**d)Faculty exchange and professional development-** Microsoft, Oracle

**e)Research -** nil

**f)Consultancy -** nil

**g)Extension -** TCS

h)Publication - nil

i)Student Placement – TCS, Microsoft, Proplam Networks, Accenture and Infostretch.

j)Twinning programmes - nil

k)Introduction of new courses - nil

l)Student exchange - nil

m)Any other

**3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.**

- Director, Principal and senior faculty members attend CII meetings. This helps in establishing collaborations with industry.
- Informal discussions between TPO and recruiting companies lead to linkages.
- Alumni initiate linkages and collaborations.
- Industry Institution Interaction cell has been set up through which linkages formed are formalized.
- Formal MOU is signed agreed collaborative activities are implemented through the departmental III cell member.
- Academic Advisory Committee of each department has members from industry and meet every semester.
- Industrial visits organized each semester.

**Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.**

To further promote research and consultancy college has made the laboratories and facilities available after academic hours to faculty and students. The establishment of the Innovation and Incubation Cell is expected to give a boost to students for becoming entrepreneurs through start-ups.

## CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 Physical Facilities

#### 4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The vision statement of AIT is to strive for excellence in providing the right environment for development of physical, intellectual, emotional and spiritual quotients with the view to produce total quality engineers, preparing them to face challenges of modern information society. To achieve this vision college has framed its mission according to which the institute will provide state of art infrastructure till deemed sufficient through input of staff and students for building up a centre of excellence.

#### 4.1.2 Detail the facilities available for

**Curricular and co-curricular activities** – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.

College has well equipped classrooms, laboratories, seminar halls and tutorial rooms to ensure an effective teaching-learning process. Department wise details of facilities are given below:

#### Applied Science and General Engineering Department

S.No.	Description	Area(Sq.m.)	Remarks
1	<b>Classrooms</b>		All classrooms have PC with internet connection, Wi-Fi and Digital light projector
	L.H. 05	82.87	
	L.H.06	82.80	
	L.H.13	80.44	
	L.H.14	80.65	
2	<b>Laboratories</b>		
	Basic Civil Engg.	117.64	
	Applied Physics	91.19	
	Applied Chemistry	92.86	
	Basic Electrical Engg.	82.61	
	FE Computer lab	110.00	
3	Tutorial room	28.08	
4	Drawing hall II	52.64	

**Computer Department**

S.No.	Description	Area(Sq.m.)	Remarks
1	<b>Classrooms</b>		PC with internet connection, Wi-Fi and Digital light projector
	L.H. 11	82.58	
	L.H.12	82.8	
	L.H. (adj. to workshop)	66	
2	<b>Laboratories</b>		
	Central Software Lab I	97.25	
	Central Software Lab II	97.25	
	Central Software Lab III	81.91	
	Hardware lab	56.29	
	Open source Software lab	37.52	
3	Seminar hall	367.7	PC with Digital light projector
4	Tutorial room	27.64	
5	Departmental Library	53.41	
6	Student Corner	26.64	

**E&TC Department**

S.No.	Description	Area(Sq.m.)	Remarks
1	<b>Classrooms</b>		PC with internet connection, Wi-Fi and Digital light projector
	L.H. 04	82.65	
	L.H.07	83.19	
	L.H.08	83.19	
	L.H. 09	83.19	
	S.H. II	82.87	
	S.H. III	82.58	
2	<b>Laboratories</b>		
	Basic Electronics lab.	70.0	
	Network & Power lab.	67.0	
	Advance Communication Lab	66.6	
	Communication Engg. (AV)	66.6	
	Programming Lab (CSL)	68.58	
	PCB Design	33	
	Computer System Lab- I	71.68	
	VLSI & Embedded lab	51.8	
	Robotics & Project Lab	51.1	
Digital & Microprocessor Lab	112.02		
3	Seminar hall	367.7	PC with Digital light projector
4	Tutorial room	27.64	
5	Departmental Library	52.85	
6	Tutorial room	26.64	

**IT Department**

S.No.	Description	Area(Sq.m.)	Remarks
1	<b>Classrooms</b>		PC with internet connection, Wi-Fi and Digital light projector
	L.H. 01	81.44	
	L.H.10	80.28	
	L.H. (adj. to workshop)	66	
2	<b>Laboratories</b>		
	IT lab II	90.6	
	Programming Lab I	81.46	
	Programming Lab II	81.46	
	Software Lab I	64.62	
	Software Lab II	75.9	
	Incubation Center	53.78	
3	Seminar hall	420.0	PC with Digital light projector
4	Tutorial room	27.64	
5	Departmental Library	66.45	
6	Student Corner	26.64	

**Mechanical Department**

S.No.	Description	Area(Sq.m.)	Remarks
1	<b>Classrooms</b>		PC with internet connection, Wi-Fi and Digital light projector
	L.H.	80.44	
	L.H.	80.81	
	L.H. (adj. to workshop)	66.00	
2	<b>Laboratories</b>		
	CAD -I Lab	71.50	
	CAD -II Lab	71.50	
	CAM Lab	87.46	
	Thermal Engg. Lab. I	88.56	
	Thermal Engg. Lab. II	81.5	
	Theory of machines Lab	54.5	
	Dynamics of machines lab	54.5	
	Fluid Engg. Lab	140.0	
	Mechatronics	140.0	
	Heat Transfer lab/Basic Mechanical Engg.	79.86	
Metrology /Metallurgy	72.0		
3	Seminar hall	420.0	PC with Digital light projector
4	Tutorial room	27.64	
5	Departmental Library	7.29	

6	Student Corner	26.64	
7	Drawing hall	103.12	
8	Workshop	980.42	

**b) Extra –curricular activities – Sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, public speaking, communication skills development, yoga, health and hygiene etc.**

College has three auditoriums for conducting various extra and co-curricular activities.

S. No.	Name	Description	Area(sq.m.)
1	Field Marshall Manekshaw Hall	Capacity -330, central air conditioning, PA system, dual projection system, internet connectivity	420.0
2	Gen. B C Joshi Hall	Capacity -200, air conditioning, PA system, projection system, internet connectivity	367.7
3	Raman Theatre	Capacity-1200 , PA system, Wi-Fi, projection system	1230

Areas for co-curricular activities

S.No.	Description	Description	Area(sq.m)
1	Project rooms:		
	OSS	With 05 PC	37.52
	Robotics		53.41
	Incubation center	Wi-Fi	53.78
2	Langauge lab.	20 PCs with Clarity English software	53.78

Areas for sports , outdoor and indoor games

S.No.	Description	Number	Area(sq.m)
1	Basket ball court	02	540
2	Football field	01	5500
3	Cricket field	01	858.89
4	Badminton court	01	156
5	Squash court	02	102
6	Gymnasium	01	361.18

**4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).**

College has prepared a five year perspective plan which includes expansion at UG & PG level. Infrastructural development is planned keeping in view the perspective plan. Necessary sanctions are taken from AWES and developmental projects executed. Details of infrastructure development over last four years is summarized below.

<b>Description</b>	<b>2014-15</b>	<b>Amount spent(in Rs)</b>	<b>2013-14</b>	<b>Amount spent(in Rs)</b>
New Building	New hostel flank	3,28,60,500	New Library Building, Boys' Common room, Addl accommodation for students.	5,18,86,860
Up gradation of Classroom	Projector, networking etc.	8,01,722	DLP projectors, UPS	6,28,247
Laboratories	Modification of old library to IT & Civil lab, painting of labs., kits, anti -virus construction of CNC lab. ryc.	84,49,574	Procurement of lab equipment, anti-virus, software etc.	33,04,943
Equipment	Procurement of PCs, UPS, RFID etc.	14,04,090	Procurement of PCs, UPS etc.	38,12,432
Sport infrastructure	Gym equipment, synthetic basketball court etc.	13,51,137	Badminton court floor painting, squash court wooden flooring etc.	3,79,670
Hostel infrastructure	New gymnasium, renovation of dining hall in hostels, grill for balconies etc.	66,95,610	Book racks, roofing in sitting area etc.	12,67,195

Description	2012-13	Amount spent(in Rs)	2011-12	Amount spent(in Rs)
New Building	Sewage treatment plant, renovation of Main Gate	60,17,560	Store room	1,44,040
Up gradation of Classroom	Procurement of PC, Projector, i-pads etc.	5,39,416	Projector, repairs, flooring of drawing hall, Workshop classrooms	28,27,273
Laboratories	Procurement of lab equipment, anti-virus, software, micro controller etc	70,80,620	Radio frequency communication lab, R&D lab, VLSI Design Lab, Server For Library Information System, PCs, software etc.	87,03,026
Equipment	Biometric device, PCs, solar lamps, firewall etc.	23,29,627	Server room, racks, total station, web cam. Etc.	22,12,914
Sport infrastructure	Up gradation of Volleyball Court II , procurement of nets etc.	12,38,702	Light Fittings In Basket Ball Ground Water proofing of Squash Court etc.	1,70,404
Hostel infrastructure	Furniture for hostels	15,34,129	Optic fibre, wi-fi, etc.	31,91,092

**4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?**

- Ramp facility exists in academic block and library building.
- Handicapped toilets at academic block ( to be constructed)
- Hostel ramps
- Classroom provided for such students on Ground floor
- Ramp at workshop

**4.1.5 Give details on the residential facility and various provisions available within them:**

• **Hostel Facility – Accommodation available**

Avg. Singlet room area (sq.m.): 6.9

Avg. Doublet room area (sq.m.): 13

Avg. Triplet room area (sq.m.): 21

Avg. Four bedded room area (sq.m.): 33

<b>Boys' hostel (OBH)</b>			
Type of Rooms	No. of rooms	Occupancy	Total students accommodated
Singlet room	121	121	
Doublet room	07	14	
Triplet room	103	309	
Four bedded room	02	08	
Total rooms	233		

<b>Boys' hostel (NBH-1)</b>			
Type of Rooms	No. of rooms	Occupancy	Total students accommodated
Singlet room	196	196	
Doublet room	09	18	
Triplet room	70	210	
Four bedded room	02	08	
Total rooms	173		

<b>Boys' hostel (NBH-2)</b>			
Type of Rooms	No. of rooms	Occupancy	Total students accommodated
Singlet room	11	11	
Doublet room	02	04	
Triplet room	21	63	
Total rooms	34		

<b>Girls' hostel (GH)</b>			
Type of Rooms	No. of rooms	Occupancy	Total students accommodated
Singlet room	10	10	
Doublet room	04	08	
Triplet room	49	147	
Four bedded room	02	08	
Total rooms	65		

- **Recreational facilities, gymnasium, yoga center, etc.**

All hostels have a recreation room with TV.

Raman theatre is used for conducting yoga and karate classes whenever required.

Gymnasium for boys is located near to fruit shop in shopping complex and for Girls it is in TV room.

- **Computer facility including access to internet in hostel**

Wi-Fi with speed 175 Mbps (shared) and all students have laptop.

- **Facilities for medical emergencies**

Medical emergencies: MI room with Army nursing assistant is available in college. For major medical emergency the students are sent to military hospital in MH Kirkee by the provision of Ambulance.

- **Library facility in the hostels** The library is near the hostel & reading room is open till 9 pm

- **Internet and Wi-Fi facility** Hostel, academic block and library are Wi-Fi enabled and there are two study halls with Wi-Fi in NBH.

- **Recreational facility**-common room with audio-visual equipments: TV room is provided in hostel.

- **Available residential facility for the staff and occupancy**

S.No.	Type of Residential faculty	Occupancy
1	Type I A	8
2	Type I B	12
3	Type II	8
4	Type III	8
5	Type IV A	4
6	Type IV B	2
7	Type V	2

All staff quarters are occupied by faculty and staff.

- **Constant supply of safe drinking water** Yes. There is safe drinking water supply to college, hostel and staff quarter by Military Engineering Service (MES) regularly. This is further treated by Aquaguard/Zero B water filters.

- **Security** Yes. Security guards are on duty 24x7 in three shifts with CCTV at main gate of college and in academic block.

#### 4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

MI room with Army nursing assistant is available in college for students and staff. Dedicated ambulance is available 24x7 in the college. Military hospital Kirkee, facilities are available 24x7 for emergency cases.

#### 4.1.7 Give details of the Common Facilities available on the campus

–spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Separate Training and Placement cell is located on first floor of central library next to Manekshaw hall. Separate Medical Inspection (MI) room in academic block is present. Cafeteria is available just adjacent to Academic block. Three

auditoriums are available. All water coolers are fitted with Aquaguard/Zero B water filters

Meetings of IQAC are conducted in the Conference room. Greivance Redressal Cell, Women's Greivance Cell etc. are located in the offices of the respective Chairperson of the Cell.

## **4.2 Library as a Learning Resource**

**4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?**

The library committee members meet to discuss the library matters as well as the proposal of new additions, rules and regulation etc

### **Library Advisory Committee:**

Principal: Dr. B.P.Patil	:	Chairman
Prof. G.R.Patil	:	OIC Library
Prof. Manisha Nilkanth	:	E& TC Dept.
Prof. Yogita Bhavsar	:	Computer Dept.
Prof. S. Mangalore	:	IT Dept.
Prof. J.D.Patil	:	Mechanical Dept.
Prof. M. Chandola	:	ASGE Dept.
Mrs. U. L.Jagtap	:	Librarian

### **Library Student Member:**

Library has student member committee; two students from each department are nominated for the same.

### **4.2.2 Provide details of the following:**

**\* Total area of the library (in Sq. Mts.)** 700 Sq. Mts.

**\*Total seating capacity** 150

**\*Working hours (on working days, on holidays, before examination days, during examination days, during vacation)**

Working Days- 9.00 am to 9.00 pm

Before examination days- 9.00 am to 9.00 pm

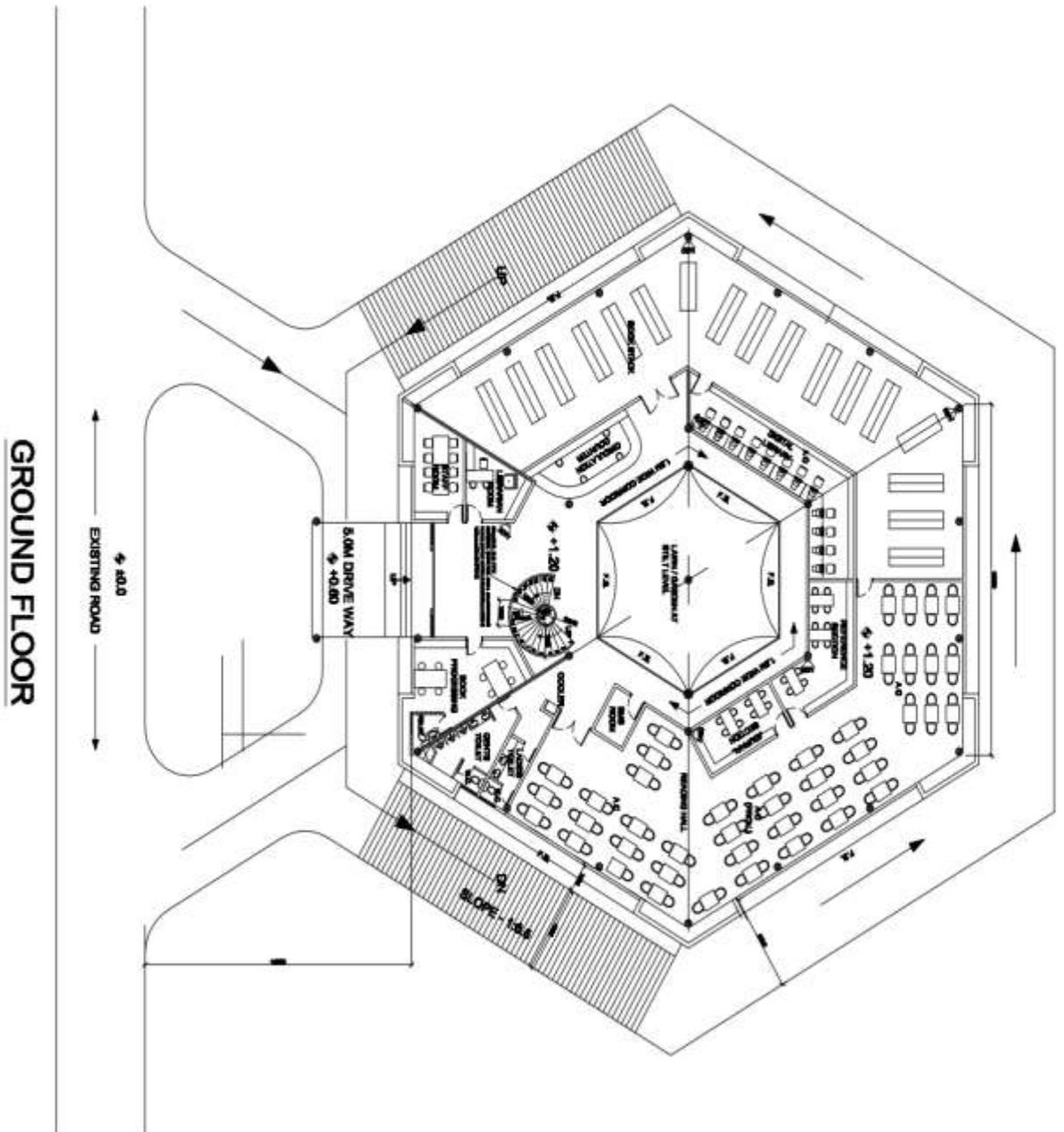
During examination days-

i. Monday to Saturday -9.00 am to 9.00 pm

ii. 1<sup>st</sup> and 3<sup>rd</sup> Saturday and all Sundays- 10.00 am to 5.00 pm

During vacation- 9.00 am to 4.30 pm

**\*Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**



**4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.**

The library takes requirement of books to be purchased from all heads of departments, who in turn take the requirement from faculty members. Students give the purchase requirement to the student members of library committee. In addition a suggestion register for books purchase is kept at the library counter.

Library holdings	2011-12		2012-13		2013-14		2014-15	
	Number	Total Cost (in lacs)						
Textbooks	1736	5.06	1925	8.65	1385	6.50	1469	6.03
Reference Books	207	0.85	106	0.70	290	1.11	150	0.69
Journals/ Periodicals	70	2.88	70	2.11	66	2.56	74	1.96
e-resources	170	3.96	579	12.68	719	15.70	737	18.65
Any other (specify)								
NPTTEL								
Videos –	110		110		110		324	
Web								
Courses:-	129		129		129		129	
CD/DVD-								

**4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?**

**OPAC**

Library provides Web OPAC facility to users. Two computers exclusively devoted to OPAC in Digital Library Section.

**Electronic Resource Management package for e-journals**

Library subscribes to 7 packages with total 737 e-journals namely

IEEE (ASPP)

IEEE(POP)

Elsevier –Science Direct

Springer

McGrawHill Access Engineering Library

J-Gate

ASTM Digital Library

**Federated searching tools to search articles in multiple databases –**

Yes

**Library Website**

There is no separate library website however e-library link is provided on institute website.

**In-house/remote access to e-publications - Yes**



**Download** - Library provides article downloading facility

**Printing** - printing and scanning facility is given to students and staff.

Reading list/ Bibliography compilation- Library is using SLIM21 library software which facilitates generation of author, title, subject bibliography.

In-house/remote access to e-resources - E-Resources are accessible from Digital Library and also accessible from hostels.

**User Orientation and awareness** - Library arranges Orientation Programme for first year students. User Awareness Session of E-Resources

**Assistance in searching Databases** - Library staff assists users in searching information from databases.

**INFLIBNET/IUC facilities** - INDEST-AICTE Consortia

#### **4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.**

- List of new arrivals and new arrivals are prominently displayed.
- Circulation of catalogues to faculty.
- SPPU question papers soft and hard copies are available.
- NPTEL web and video courses.
- Book bank for meritorious students.
- Turnitin software for plagiarism check.
- Reference service.
- Library provides services to all departments. The facilities are upgraded every year, new books and journals are added as per requirements of the departments. Library staff assists students in finding appropriate information for assignments and projects.

#### **4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.**

Library can be accessed by physically challenged persons using ramp provided.

#### **4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analyzed and used for further improvement of the library services?)**

Library Feedback-

Feedback collected from students for improvement of library. In the circulation section of the library a Suggestion Register is kept where students can give their suggestion. These suggestions are placed before the college authority and accordingly these suggestions are implemented. A questionnaire based feedback of users satisfaction is conducted online centrally and interpreted to measure the feedback about library timing, collections, services, atmosphere etc.

### **4.3 IT Infrastructure**

#### **4.3.1. Give details on the computing facility available (hardware and software) at the institution.**

• Number of computers with Configuration (provide actual number with exact configuration of each available system)

S. No.	Dept	Configuration	Quantity	Year of Purchase
1	E & TC	IBM PIV Think Center M50	59	2004
		LENOVO Think Center M90 i5	25	2011
		LENOVO Think Center A85 i5	2	2011
		HP COMPAQ 6200 PRO MT PC i5 2400	14	2011
		HP COMPAQ 6300 PRO MT PC i5 3470	13	2013
		HP COMPAQ 3330 MT PC	04	2014
		HP Z420xN E5 Work station	01 03	2013 2014
		HP COMPAQ PRO MT PC i5 3470	11	2015
		Total	<b>132</b>	
		2	Mech	PC-Pentium IV IBM
Workstation-Pentium IV	10			2005
PC-Pentium IV Hp	12			2005
Desktop PC Hp 8000	07			2010
Desktop PC Hp Comp	06			2011
Desktop PC- Lenovo Thinkp	07			2011
Workstation-HP core I <sub>5</sub>	14			2013
Desktop PC- HP Pro	09			2013
Desktop 500 GB, SDD 4 GB RAM I <sub>5</sub>	04			2015
1TBHDD, 8GB RAM, 2GB graphics, I <sub>7</sub>	12			2015
Total	<b>92</b>			
3	Computer			IBM-PIV
		IBM Net Vista PIV (staff)	15	2002
		IBM-PIV	17	2004
		Lenovo Dual Core	25	2008
		Lenovo Dual Core	04	2010
		HP I <sub>5</sub>	26	2011
		Lenovo I <sub>5</sub>	20	2011
		HP I <sub>5</sub>	05	2013
		HP I <sub>5</sub>	10	2014
		HP Intel I <sub>5</sub> 4570 CPU 4 GB RAM	12	2015
		Total	<b>146</b>	
4	IT	IBM Net Vista PIV	18	2002
		IBM Server X232 Intel	01	2002
		IBM PC Think Centre Dual	36	2007

		Core 2140		
		IBM Thinkcentre M 50 PIV	02	2007
		IBM Lenovo Thinkcentre	08	2011
		HP I <sub>5</sub> 6200	14	2011
		HP 6200 I5 Promicro Tower	01	2011
		Lenovo Think Centre A85 V4	03	2011
		IBM Lenovo Thinkcentre	12	2011
		Hp Compaq Elite 8300	10	2011
		HP I <sub>5</sub> 6300	8	2013
		HP I <sub>5</sub> 6200	07	2013
		IBM X 3650 M4 Intel Xeon E5	01	2013
		HP Elie desktop 800 G1 TWR, 4590, I <sub>5</sub>	20	2015
		<b>Total</b>	<b>141</b>	
5	ASGE	Laptop Compaq	01	2007
		Lenovo, Intel Core P	06	2008
		IBM, PIV	02	2008
		Lenovo Intel Core 2 Duo P	03	2010
		HP Intel I <sub>5</sub> 4570 CPU 4 GB RAM	50	2014
		HP Intel I <sub>5</sub> 4570 CPU 4 GB RAM	07	2015
		<b>Total</b>	<b>71</b>	
6	LIBRARY	I <sub>5</sub> Lenovo Idea Centre Intel	01	2010
		I <sub>5</sub> Lenovo Idea Centre Intel	04	2012
		I <sub>5</sub> Lenovo Idea Centre Intel	05	2014
		IBM Thinkcentre Lenovo	10	Received from Comp Dept
		<b>Total</b>	<b>20</b>	
7	ADMIN	Laptop Compaq	01	2002
		Laptop HP R007TX Core	01	2014
		Core 2 Duo Lenovo Q77	06	2014
		HP Desktop Core I <sub>3</sub>	04	2015
		P IV Thinkcentre Lenovo	09	2010
		I <sub>5</sub> Lenovo Idea Centre Intel	05	2011
		HP 400, G2, MT Core I <sub>3</sub>	01	2015
		<b>Total</b>	<b>25</b>	
	<b>Grand Total</b>		<b>627</b>	

- **Computer-student ratio** 1:1.94
- **Stand alone facility** – Fax -01
- **LAN facility** YES 100/1000 mbps CAT6 and OFC Connectivity to all Dept. Labs and Hostels are managed centrally through server room.
- **Wifi facility** YES all student (Hostel and Academic Section)
- **Licensed software**

## System software

S.No.	Configuration	Qty	Date of Purchase
1	MS Win 3.1 OS Workgroup	01	1996
2	RS 6000 System software	Un-limited	1997
3	Win 98 Operating System SE	01	2003
4	Win 2000 Server Operating System	05	2002
5	Win 98 Operating System Paper License	35	2007
6	Win NT Server Operating System Ver 4 SP 3	05	1997
7	Win XP Operating System Preloaded	60	2003
8	Novell Netware 4.1	25	996
9	MSDN Alliance Subscription System Softwares	Un-limited	2015
10	MSDN Academic Alliance	Un-limited	2015

## Application software

S. No	Dept	Configuration	Quantity	Year of Purchase
01	MECH	AutoCAD 2006 (Academic Edition ) Network Version (10 Seats) Sr. Nos : 342/89563149,3347,3842,3941,4040, 4139,4238,4337,4436,4535	10 Seats	2005
		ANSYS-University Intermediate Ver 9.0 FEA Software-05 Network Seats Sr. No. 20041123	05 Seats	2005
		MATLAB Software along with optimisation tool box, Simulink tool box, Simmechanics tool box, Data Acquisition Tool Box .	05 01 01 01 User	2007
		CADIAN Mech 2008 Site License (Educational Version)	Unlimited User	2009
		Pro/Engineer University Plus	30 User	2010
		Mastercam X5(Education Network License) Milling, Turning, Design, Wire,	10 User	2012

		Router, Mastercam Art. Free Modules – Cimco Edit, Cimco NC Base, Robotmaster, Snag IT (01 No. Each)		
		STAR-CCM+ Software	25 User	2012
		MSC Software University MD FEA + MD Motion Bundle a) MSC Nastran, Patran, Marc, Dytran, SINDA, Sofy, Flightloads, Adams, Adams Car, Easy5  b)Fatigue Package c)Translator/Access	150 User  05 User 05 User	2013
		ANSYS Rel 14.5 Academic Teaching Advance software	05 User	2013
		CATIA V6	20 User	2015
		ABAQUS	21 User	2015
2	IT	Xilinx Make ISE series US-ISE- FND(VER 9.1)	Multi	2007
		Multisim 11.0	10	2009
		Microwind 3.5 Software	05	2011
		Triton IDE for ARM (Embedded System Design) Linux Based	01	2011
		Labview 8.5	25	2012
		Oracle Database 10g	30 User	2013
		Oracle Database 10g	30 User	2013
		MatLocation R2013aBase Module	25	2013
		Signal Processing Toolbox	02	2013
		DSP System Toolbox	02	2013
		Communication System Toolbox	02	2013
		Image Processing Toolbox	02	2013
		Simulink Toolbox	02	2013
		Simscape Toolbox	02	2013
		Lab 2014 LTE Systems Toolbox	02	2014
		IBM Rational Seed Program	30 User	2015
3	COMP	MSDOS 5 6.22	30	1996
		Borland Turbo C++ for win 3.1	01	1996
		Turbo Pascal v 7.0	01	1996
		Visual Foxpro v 3.0	01	1996
		MS Office Professional v4.3	01	1996
		MS Win 95 Upgrade	01	1996
		System Architecture 2001	05	2001
		Work View Software	05	2001
		Oracle 8i for Linux	05	2002

		Thin Client Citrix Software	35	2002
		Rational Rose Enterprise Suite Ver 2002.05.20	10	2003
		3DS Max v9	10	2007
		SNET Language Lab Software	31	2009
		Oracle 11g for Windows	05	2010
		Code Gear C++ Builder	05	2010
		Anti-Virus Kaspersky Internet Security 2012	20	2015
		Anti-Virus Kaspersky Business Space	100	2015
		MSDN Alliance Application Softwares	Un-limited	2015
4	E&TC	Xilinx Make ISE series US-ISE-FND(VER 9.1)	Multi	2007
		Multisim 11.0	10	2009
		Microwind 3.5 Software	05	2011
		Triton IDE for ARM (Embedded System Design) Linux Based	01	2011
		Labview 8.5	25	2012
		MatLocation R2013aBase Module	25	2013
		Signal Processing Toolbox	02	2013
		DSP System Toolbox	02	2013
		Communication System Toolbox	02	2013
		Image Processing Toolbox	02	2013
		Simulink Toolbox	02	2013
		Simscape Toolbox	02	2013
		Lab 2014 LTE Systems Toolbox	02	2014
		LTE	01	2015

- Number of nodes/ computers with Internet facility - All
- Any other

#### 4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

100 Mbps NKN Connectivity

75 Mbps TATA Communication

02 Mbps Aircel Wireless Connectivity

#### 4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

Virtual Class Room through NKN connectivity.

#### 4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

2014-15

S. No.	Details	Dept.	Amount approved (Rs in lacs)	Amount expended (Rs in lacs)
1	Procurement of computers	Computer	6.0	4.67
		E&TC	6.8	5.54
		Mechanical	2.2	10.65
		Information Technology	10.0	9.67
		Applied Science and General Engg.	2.8	3.53
2	Maintenance of computers, anti-virus, accessories etc.	All	7.1	4.2
3	IT Infrastructure (net working, optic fiber, access points, LAN, base licenses for Microsoft etc.)	All	27.5	27.03
4	Total		62.4	65.29

2013-14

S. No.	Details	Dept.	Amount approved (Rs in lacs)	Amount expended (Rs in lacs)
1	Procurement of computers	Computer	4.0	0.89
		E&TC	-	-
		Mechanical	-	-
		Information Technology	5.75	5.76
		Applied Science and General Engg.	18.75	18.75
2	Maintenance of computers, anti-virus, accessories etc.	All	6.9	1.91
3	IT Infrastructure (net working, optic fiber, access points, LAN, base licenses for Microsoft etc.)	All	22.3	15.78
4	Total		57.7	43.09

2012-13

S. No.	Details	Dept.	Amount approved (Rs in lacs)	Amount expended (Rs in lacs)
1	Procurement of computers	Computer	3.7	0.23 (I pad)
		E&TC	-	0.24 (I pad)
		Mechanical	11.5	11.48
		Information Technology	6.0	5.33
		Applied Science and General Engg.	-	-
2	Maintenance of computers, anti-virus, accessories etc.	All	11.2	1.44
3	IT Infrastructure (net working, optic fiber, access points, LAN, central server roometc.)	All	53.8	24.4
4	Total		86.2	43.12

2011-12

S. No.	Details	Dept.	Amount approved (Rs in lacs)	Amount expended (Rs in lacs)
1	Procurement of computers	Computer	8.0	9.7
		E&TC	-	-
		Mechanical	2.8	-
		Information Technology	6.0	5.6
		Applied Science and General Engg.	-	-
2	Maintenance of computers, anti-virus, accessories etc.	All	4.55	2.3
3	IT Infrastructure (net working, optic fiber, access points, LAN etc.)	All	12.9	6.45
4	Total		34.25	24.05

**4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?**

- All classrooms have PC's with Projector and Wi Fi internet connectivity.
- Faculty members augment their lectures powerpoint presentations, videos and animations.
- Smart board in Drawing hall is used for Engineering graphics.
- 'MOODLE' e learning platform is used by teachers for uploading lecture plan, lecture notes and presentations.
- Mock online tests are conducted on MOODLE.
- Students are given assignments on MOODLE.
- Students give short presentations on topics being studied from first year itself.
- Language laboratory is available for students to improve their English skills.
- Reprographic facilities , scanner, printers are made available to students.

**4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching- learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.**

- Students are motivated to read and present the latest trends and advance in the subject under study and give short presentations during class. Wi Fi in hostels and connectivity to e-journals from hostels helps students prepare their presentations.
- Students use library services like e-journals in their research activities and projects.
- Teacher facilitates learning by uploading ppts, notes, web links etc. on MOODLE.
- Teacher facilitates the learning process by introducing students to the use of e journal and e books.

**4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?**

Yes, 100 Mbps NKN Connectivity. College has plans to set up video conferencing classroom to connect with IITs, NITs and Research organizations using this connectivity.

**4.4 Maintenance of Campus Facilities**

**4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?**

Sufficient financial resources are made available for maintenance and upkeep of infrastructural facilities.

S. No.	Maintenance for	2014-15		2013-14		2012-13		2011-12	
		Approved (in lacs.)	Expended (in lacs)						
a.	Building, Furniture, Equipment	123.00	143.44	124.00	91.98	94.68	88.09	137.94	106.88
b.	Computers	7.1	4.2	6.9	1.91	11.2	1.44	4.55	2.3
c.	Vehicles	5.0	3,74,605	5.0	4,29,105	5.0	8,57,912	5.0	4,99,333
d.	Any other								

#### 4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

Maintenance cell is headed by maintenance in-charge who is retired army person E/M JCO. Complaint register is maintained in the department for registering and monitoring complaints. College has an annual maintenance contract (AMC) for computers and some equipment. Departmental maintenance of lab equipment is ensured by technical support staff and faculty in charge of respective laboratory.

#### 4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?

Yes. Calibration is done periodically.

#### 4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

- UPS is installed in all labs proper room with ventilation.
- Automatic power factor controller (APFC) in power station & controlling harmonic spikes.
- 3x125 KVA generators for constant power supply with synchronize panel and providing stable voltage.
- Military engg. Service (MES) supply 50,000 gallons of water per day. Total water storage capacity is 1, 60, 000 gallons.

#### Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

National Knowledge Network (NKN) has provided 100Mbps leased line. College has plans to set up video conferencing classroom to connect with IITs, NITs and Research organizations using this NKN connectivity.

A dedicated 2 Mbps line has been provided to Innovation and Incubation Centre to collaborate with industry.

Google Hangouts and Skype sessions are organized to connect to Project mentors and alumni.

It is planned to set up private cluster and cloud in future.

## CRITERION V - STUDENT SUPPORT AND PROGRESSION

### 5.1 Student Mentoring and Support

#### 5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes.

Prospectus : An updated prospectus is published annually and is also uploaded on our web site www.aitpune.com. Applications for admission received are downloaded from our website also.

AIT Rule Book : A copy is given to every student of First Year at the time of joining AIT. It contains the following information:

- General rules of conduct.
- Clauses 3, 6, 7 and 9 of UGC Regulations On Curbing the Menace of Ragging in Higher Education Institutions, 2009.
- Extract of Maharashtra Prohibition of Ragging Act 1991.
- Extract of University of Pune Ordinance: Maintenance of Discipline and Good Conduct by students.
- AIT dress code.
- Hostel rules.
- Medical aid
- Instructions for utilizing sports and other facilities
- Complaint registering procedure
- Do's and don'ts
- Personal information form to be filled by the student and submitted to Rector
- Honor code is displayed on AIT website.

#### 5.1.2 Specify the type, number and amount of institutional scholarships/freshships given to the students during the last four years and whether the financial aid was available and disbursed on time?

AIT provides Merit-cum-means scholarship & AGIF Scholarship to deserving students. Last academic year 336 students (28%) benefitted from these schemes with total amount disbursed being one rupees crore nineteen lakhs sixty thousand. Institute also awards TATA merit scholarship, Indian Express scholarship, Badve scholarship & DLF Raghvendra scholarship to toppers of each class. Horizon (this is an NGO run by ex-servicemen) sponsored scholarships are also awarded to deserving students. Details of scholarships are given below:-

S.No.	Name of Scholarship	Year	No of students	Total Amount (Rs)
1.	MERIT-CUM-MEANS SCHOLARSHIP	2011-12	54	4,00,000/-
		2012-13	55	4,00,000/-
		2013-14	58	4,00,000/-
		2014-15	47	4,05,000/-

2.	AGIF SCHOLARSHIP	2012-13	206	82,40,000/-
		2013-14	283	1,13,20,000/-
		2014-15	289	1,15,60,000/-
3.	TATA MERIT SCHOLARSHIP	2011-12	12	2,10,000/-
		2012-13	12	2,10,000/-
		2013-14	12	2,10,000/-
		2014-15	12	2,10,000/-
4.	INDIAN EXPRESS SCHOLARSHIP	2011-12	12	2,10,000/-
		2012-13	12	2,10,000/-
		2013-14	12	2,10,000/-
		2014-15	12	2,10,000/-
5.	HORIZON SCHOLARSHIP	2011-12	12	2,00,000/-
		2012-13	12	2,00,000/-
		2013-14	12	2,00,000/-
		2014-15	12	2,00,000/-
6.	BADVE SCHOLARSHIP	2014-15	05	75,000/-
7	DLF RAGHVENDRA SCHOLARSHIP	2011-12	02	80,000/-
		2012-13	03	1,20,000/-
		2013-14	03	1,20,000/-
		2014-15	04	1,60,000/-

### 5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

About 25% of our students receive financial assistance from the Central government in the form of AGIFscholarships. A few students get financial assistance from J&K government.

### 5.1.4 What are the specific support services/facilities available for Students from SC/ST, OBC and economically weaker sections

Students with physical disabilities

Overseas students

Students to participate in various competitions/National and International Medical assistance to students: health centre, health insurance etc. Organizing coaching classes for competitive exams

Skill development (spoken English, computer literacy, etc.,)

Support for “slow learners” Exposures of students to other institution of higher learning/ corporate/business house etc.

Publication of student magazines

The institution's mission is to -

- Provide state of art infrastructure till deemed sufficient through input of staff and students for building up a centre of excellence.
- Nurture and foster an academic fraternity to cater to the need of the Engineering students community.
- Encourage and motivate staff and students to utilize the facilities provided to them, with their innovative and creative thinking in an effective way for their overall development.

- Augment all available avenues to develop staff and students for emerging need of society and develop Army Institute of Technology into a Global Centre of excellence in the field of Technical Engineering Education.

Accordingly, the following support facilities are provided to the students:

#### **Students from SC/ST, OBC and economically weaker sections**

For economically weak students DLF Raghvendra scholarship, HORIZON scholarship, merit-cum-means scholarships, Leela Poonawala and Persistent scholarships are offered which are based on the family minimum income .

#### **Overseas students**

College is only for Army dependents and no overseas students are allowed to enroll.

#### **Students to participate in various competitions/National and International**

In its endeavor to promote all round holistic development, the college encourages participation in various competitions at national and international levels. Not only participation in the challenging competitions but winning laurels has become an integral part of the College culture. A list of important competitions with timelines are displayed on AIT website and maximum participation is encouraged.

#### **Medical assistance to students: health centre, health insurance etc.**

Our students being dependents of army personnel are eligible to avail military hospital facility and this is made available to them. A dedicated nursing assistant is present on campus and students requiring further medical treatment are taken to MH Kirkee in a dedicated ambulance.

#### **Organizing coaching classes for competitive exams**

College provides coaching to students interested in appearing for SSB examination under the University Entrance Scheme.

No coaching classes are organized by the college for competitive exams, like GATE/GRE/CAT etc. however, students interested to appear in various competitive examinations are helped by the teachers in respect of study materials and counseling for the right strategies. Students have access to library and to refer the books related to entrance test.

#### **Skill development (spoken English, computer literacy, etc.)**

Evening classes for students identified to be weak in English and programming are conducted in the first year. In the second year and third year C, C++ programming, JAVA, .NET classes are also conducted for additional skill development. Soft skills training by industry experts in second, third and final year in a gradual manner based on need analysis.

#### **Support for “slow learners”**

Counselors identify slow learners and guide them as to how they should study. They are given extra assignments and tests.

### **Exposures of students to other institution of higher learning/ corporate/business house etc.**

- Industrial visits ( two per year) are conducted for exposure of students to other institutions of higher learning/ corporate/business houses etc.
- Many of our students do internships in institutions of higher learning/corporate/business houses.
- The college organizes internships of almost 30% students in Army base workshops.
- Students are encouraged to participate in Tech. fests. organized by IITs and NITs.

### **Publication of student magazines**

A magazine club functions under a faculty in charge. College provides necessary infrastructural support and funding for bringing out our annual magazine “SRIJNA”, four newsletters per year and one e-magazine.

### **5.1.5. Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.**

- The Entrepreneurship Development Cell (EDC) was started with the object of promoting specialized knowledge in the field of entrepreneurship development. In view of the worldwide shortage of jobs (both government and private sectors) leading to unemployment problems and lack of proper utilization of human resources; the cell strives to identify talented youth to entrepreneurial works.
- Competitions like B-plan are also conducted by the Innovation centre.
- Smart business ideas are nurtured and progressed under the guidance from private entrepreneurs in Incubation centre.

### **5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.**

\* additional academic support, flexibility in examinations

\* special dietary requirements, sports uniform and materials

\* any other

AIT gives considerable importance to the overall personality development of its students as exemplified in our vision statement. The Institution motivates the students to get actively involved in the extracurricular and co-curricular activities, like sports, games, Quiz competitions and discussions etc.

College has various clubs by which different intra college & intercollegiate activities are conducted. Each club has a faculty in charge to guide the students. Table below list the various clubs and their major activities conducted.

S.No.	Clubs/Responsibilities	Activities
1	Technical Board	1]Tech-Aakriti (Intra college) 2]Tech solutions(Inter college) 3]Participation by students in technical events of other colleges.
2	Cultural and Music Board	1]Aakriti (Intra college) 2]Amethyst (Inter college) 3]Battle of Bands (Inter college) 4]Healing by music
3	Sports Club	1]PACE (Intercollege sports event) 2]Aakriti Sports(Intra college)
4	NSS Club	1]Blood donation camp 2]Orphanage visit 3]Oldage home visit 4]Collection of funds for donation to NGOs 5]Independence day celebration 6]Republic day celebration 7]Cleanliness drives 8] Tree plantation
5	Spiritual Club	1]Yoga day 2]Mahashivratri festival 3] Krishna Janmashtami celebration 4]Spiritual Guest lectures
6	Magazine	1]Photography competition 2]Magazine board notice board 3]E Magazine 4]News letters 5]SRIJNA
7	Open Source Software Club	1] OSS Club WordPress Blog 2] Web Portal for AIT incubation centre 3]Collaborative projects based upon Open source technologies 4]Guest lectures
8	Robotics Club	1] Participation in ROBOCON 2]Various robotics competitions 3] Robotics workshops
9	Maths Club	1]Ramanujan Quiz 2]Visit to Mathematical Institutes 3]Discussion sessions 4]Guest Lectures
10	Debating Club and Quiz	1]Hindi debate in Pre Aakriti and Aakriti 2] English debate in Pre Aakriti and Aakriti 3]Intra college events for first year students
11	Astronomy Club	1]Astronomy Quiz 2]Star gazing 3]Visit to IUCAA 4]Guest lectures

Additional support provided by the college -

- Due consideration in respect of attendance is given for the students participating in important sports events outside the college.
- Since the College has to follow the examination time tables of the affiliating university, there is no scope for flexibility from examination schedule. Consideration cannot be provided even for the internal assessment examinations.
- Transport is arranged for the students to represent team of our college in various competitions like ROBOCON, SUPRA-BAJA etc. They are given additional support and facilitated by the teachers even in odd hours. Extra classes are conducted to cover up the syllabus.
- Budgetary support is extended for conduct of all the above events.

**5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOEFL / GMAT/Central /State services, Defense, Civil Services, etc.**

College provides coaching to students interested in appearing for SSB examination under the University Entrance Scheme.

In case of other competitive examinations like GATE/CAT/GRE/IES etc. faculty members guide students regarding study materials and counseling for the right strategies. Students have access to library and to refer the books related to entrance test.

**5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)**

**Academic-** The institute provides regular counseling to the students to address issues relating to their academic shortfall and obstacles. Each faculty member has 15 students under him/her. In addition a mentor scheme where 4 to 5 students are placed under a student mentor of next senior batch. The mentors are carefully selected based on recommendation of their counselor. The mentors help the students under him during evening hours as college is completely residential. A separate track record – Counseling file is maintained for each student. This contains academic details, personal information, short and long term goals of the student, record of participation in co-curricular activities etc.

**Personal-** The students are encouraged to share their personal problems with their counselors. A friendly environment is provided to make them comfortable to share their personal problems with their mentors as well. The mentors maintain confidentiality of any personal information and take necessary corrective steps in consultation with senior official staff members, thereby addressing personal problems.

**Career-** The institute encourages its students towards taking up higher studies through the various activities of placement cell and career- guidance cell. Our faculty members & alumni guide our students.

**Psycho-social** – College calls a professional counselor for psychological counseling in case a requirement is projected by faculty counselor.

**5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).**

Training & Placement Cell of the institution has a structured mechanism for career guidance and placement of its students. It works in conjunction with PR Cell consisting of faculty and student members from each department and the college Alumni council. Career Guidance provided for graduating engineers is of three types:-

- (a) To seek job opportunity after graduation in a good industry.
- (b) To pursue higher studies, i.e. MS, ME and MBA.
- (c) Entrepreneurship.

Following are the services provided:-

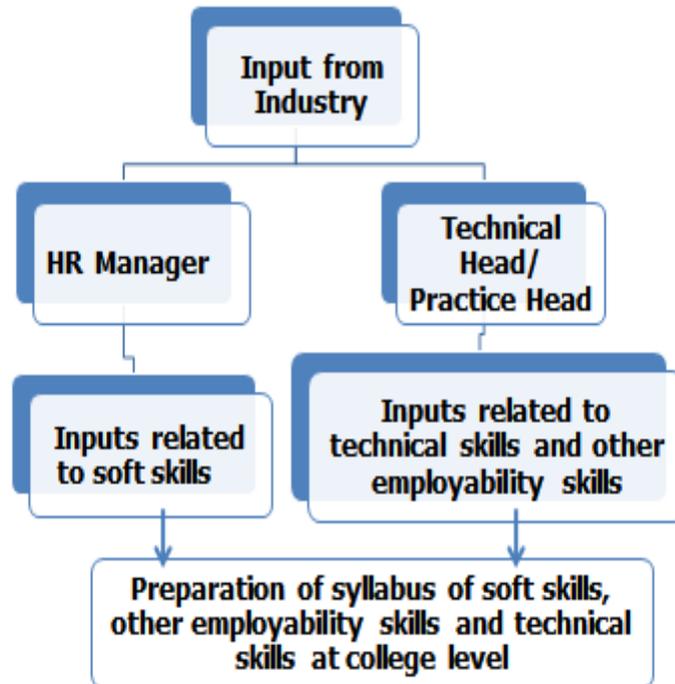
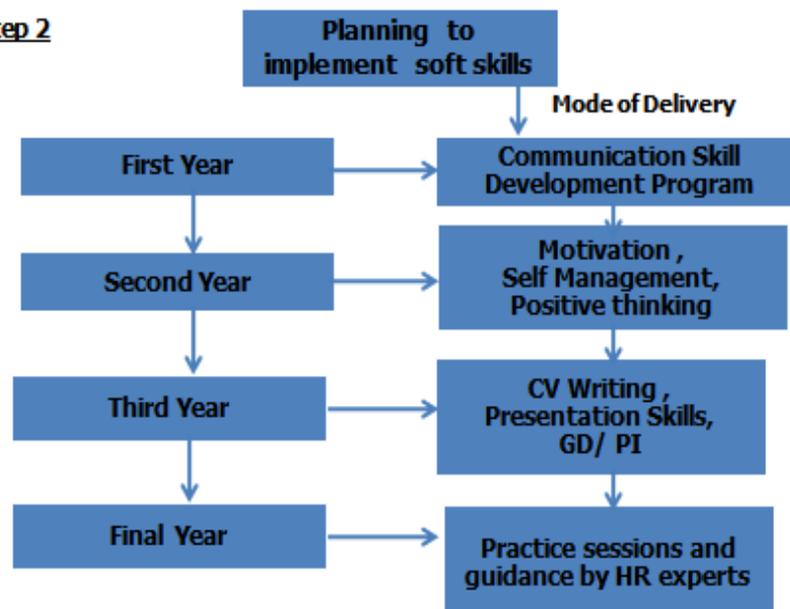
- (a) Guidance regarding job profiles offered by different types of industries.
- (b) Creation of awareness about skill sets expected by potential customers, i.e. industries visiting the campus.
- (c) Organizing sessions by industry speakers to guide the students.
- (d) Organizing Group Discussion & Personal Interview workshops.
- (e) Conducting Communication Skill Evaluation process for each candidate.
- (f) Organizing training sessions on aptitude test and conducting the mock tests.
- (g) Dedicated placement website where placement cell displays all latest and relevant literature regarding career planning, latest technologies, interview process, technical competitions etc.
- (h) Co-ordination of campus placement activities which include:-
  - (i) Invitation to manufacturing, IT, ITeS, Consulting organizations.
  - (ii) Collection of Job Notification Form.
  - (iii) Organizing campus drive.
  - (iv) Facilitation of all rounds of interview process.

Facilities available :

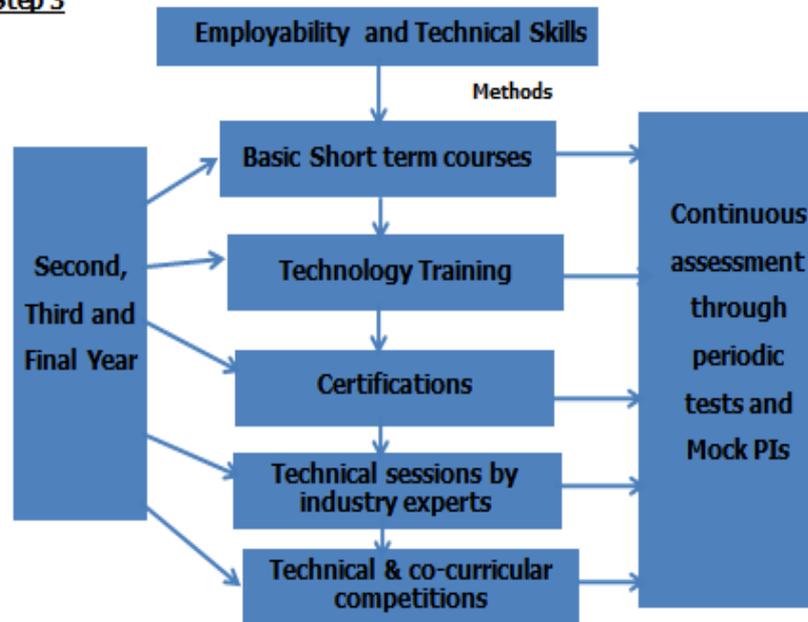
- (a) Dedicated Training & Placement office with interview and discussion rooms.
- (b) Auditorium with all required arrangements (Projectors, PA System etc).
- (c) Facility to conduct written and online tests.

Training imparted is along the following lines:-

- (a) Soft skill and communication skill training : This activity is carried out with the help of professional trainers and dedicated soft skill trainer, those are AIT faculty.

**Step1****Step 2**

(b) Technical Training : After taking inputs/ feedback from industries after campus recruitment throughout a year, we have developed a system of training.

**Step 3**

In addition, counseling of students in the form of

- (a) Career Counseling : By Training & Placement Officer, eminent personalities from industry, professional career counselors and senior alumni.
- (b) Counseling regarding Employment Enhancement : Employability tests are carried out by Aspiring Minds which generate reports on employability of individual student and identify areas requiring improvement.
- (c) Psychological Counseling : Professional counselor is available if required to address any psychological counseling needs of students.

The training and Placement Cell also assists students aspiring to seek opportunities in Armed Forces by arranging SSB coaching sessions. The session consists of a five days orientation and module-wise training cum guidance program. Following resource persons are involved in the activity:-

- (a) Col C Ganesh Babu (Retd), Ex GTO, 21 SSB Bhopal.
- (b) Brig SR Mazagaonkar (Retd), Director, Bombay Sappers Association and VP, Rakshak Infrastructures.
- (c) Col Rohit Prasad, AIT Alumnus, CO, Southern Command, Composite Sig Regt.
- (d) Maj Ankush Goyal, AIT Alumnus.

Campus placements being the main objective of the Training and Placement Cell, every year, on an average more than 70 industries visit the campus for placements. In addition to campus placements a number of industries offer internships as well as offer technical projects through the Training and Placement Cell.

**DETAILS OF CAMPUS RECRUITMENT****B.E 2011-12**

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
1	MICROSOFT IT	4	0	2	0	6	10.20
2	CISCO	1	0	0	0	1	7.04
3	THOUGHTWORKS	2	1	1	0	4	5.80
4	BELZABAR SOFTWARE	0	0	1	0	1	5.76
5	FMC TECHNOLOGIES	0	0	0	4	4	5.16
6	DELOITTE	5	2	9	0	16	4.63
7	GODREJ	0	0	0	8	8	4.50
8	GS LAB	4	1	1	0	6	4.50
9	JOHNDEERE	4	0	1	2	7	4.50
10	SABA SOFTWARE	2	0	2	0	4	4.50
11	SAPIENT GLOBAL	2	3	4	0	9	4.50
12	TAVISCA SOLUTIONS	2	1	1	2	6	4.20
13	ATLAS COPCO	0	0	0	1	1	4.00
14	KIRLOSKAR GROUP	0	0	0	1	1	4.00
15	FORBES MARSHALL	0	0	0	2	2	3.96
16	COMVIVA	8	4	5	0	17	3.85
17	BROADRIDGE	1	4	3	0	8	3.65
18	ALFA LAVAL	0	0	0	2	2	3.60
19	PERSISTENT	3	2	1	0	6	3.60
20	AMDOCS	3	0	3	0	6	3.50
21	CONTINENTAL AUTOMOTIVE	0	4	0	0	4	3.50
22	GENERAL MOTORS	0	0	0	6	6	3.50
23	SYNYGY	0	1	1	0	2	3.50
24	WHIRLPOOL	0	1	0	4	5	3.50
25	JOSH SOFTWARE	1	1	0	0	2	3.40
26	MU SIGMA	3	1	1	2	7	3.30
27	GREAVES COTTON	0	0	0	4	4	3.25
28	INFOSYS	12	21	22	13	68	3.25

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
29	INDIGO ARCHITECTS	3	0	0	0	3	3.24
30	CODEWALLA	1	0	1	0	2	3.20
31	GRADMENER	0	1	0	0	1	3.10
32	COGNIZANT	11	23	23	15	72	3.05
33	3D PLM SOFTWARE	4	0	5	3	12	3.00
34	BEHR INDIA	0	0	0	1	1	3.00
35	EDELWEISS	0	0	0	2	2	3.00
36	HONEYWELL TURBO	0	0	0	3	3	3.00
37	L&T IES	0	3	0	1	4	3.00
38	ZENSAR	1	0	0	0	1	3.00
39	DECCAN WATER TREATMENT PVT LTD	0	0	0	4	4	1.80
ARMY		0	1	0	0	1	
<b>TOTAL NO OF STUDENTS PLACED</b>		<b>51</b>	<b>53</b>	<b>56</b>	<b>49</b>	<b>209</b>	<b>(209/228)</b>
<b>TOTAL NO OF OFFERS</b>		<b>77</b>	<b>75</b>	<b>87</b>	<b>80</b>	<b>319</b>	<b>92%</b>

Average Salary - Rs3.70 LPA

### DETAILS OF CAMPUS RECRUITMENT

#### B.E 2012-13

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
1	MICROSOFT IDC	1	0	0	0	1	16.00
2	MICROSOFT IT	2	0	0	0	2	10.20
3	ZS ASSOCIATES	0	5	3	0	8	7.46
4	BELZABAR	3	0	1	0	4	6.48
5	THOUGHTWORKS	0	0	2	0	2	6.23
6	FMC TECHNOLOGIES	0	0	0	2	2	5.29
7	GODREJ	0	0	0	2	2	5.00
8	JOSH SOFTWARE	0	0	1	0	1	5.00

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
9	SAINT GOBAIN GLASS INDIA	0	0	0	1	1	5.00
10	DELOITTE	2	8	5	0	15	4.50
11	GS LAB	3	1	0	0	4	4.50
12	JOHNDEERE	2	1	1	3	7	4.50
13	SABA SOFTWARE	3	1	0	0	4	4.50
14	SAPIENT	3	8	6	0	17	4.50
15	DRUVA SOFTWARE (testing)	1	0	1	0	2	4.42
16	GENERAL MOTORS	0	0	0	5	5	4.00
17	KIRLOSKAR	0	0	0	1	1	4.00
18	WHIRLPOOL	0	2	0	2	4	4.00
19	CALSOFT	2	0	1	0	3	3.75
20	PRAJ INDUSTRIES	0	0	0	3	3	3.70
21	TAVISCA	1	1	2	0	4	3.70
22	JINDAL STEEL	0	0	0	2	2	3.68
23	BROADRIDGE	1	0	1	0	2	3.65
24	PERSISTENT SYSTEMS LTD	4	0	1	0	5	3.55
25	ADOR WELDING	0	0	0	1	1	3.50
26	CONTINENTAL AUTOMOTIVE	0	0	0	1	1	3.50
27	ACCENTURE	18	13	13	7	51	3.34
28	MU SIGMA	1	3	2	1	7	3.30
29	ZYCUS OFF CAMPUS	0	0	0	1	1	3.20
30	BENTELEER AUTOMOTIVE	0	0	0	3	3	3.00
31	CODE DECODE LABS	1	0	0	0	1	3.00
32	HSBC SOFTWARE	0	0	1	0	1	3.00
33	INFOSTRETCH SOLUTIONS PVT LTD	2	0	1	0	3	3.00
34	INTELEGENCIA	1	2	2	0	5	3.00
35	L&T IES	0	1	0	1	2	3.00
36	LNT INFOTECH	0	2	0	0	2	3.00

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
37	SNS TECHNOLOGIES	0	0	1	0	1	3.00
38	SOFTENGER	0	1	0	0	1	3.00
39	SYNECHRON	3	2	8	0	13	3.00
40	ZENSAR TECHNOLOGIES	1	0	0	0	1	3.00
41	BYTERIDGE	0	1	1	0	2	2.40
42	ARDE, PASHAN	0	0	0	1	1	1.80
43	PACKT PUBLISHING	1	0	0	0	1	1.80
44	VOLKSWAGEN (APPRENTICESHIP)	0	0	0	1	1	1.80
ARMY		3	0	0	3	6	
<b>TOTAL NO OF STUDENTS PLACED</b>		<b>50</b>	<b>45</b>	<b>49</b>	<b>33</b>	<b>177</b>	<b>(177/219)</b>
<b>TOTAL NO OF OFFERS</b>		<b>59</b>	<b>53</b>	<b>53</b>	<b>41</b>	<b>206</b>	<b>81%</b>

Average Salary - Rs 4.05 LPA

### DETAILS OF CAMPUS RECRUITMENT

#### B.E 2013-14

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
1	BPCL	0	0	0	1	1	10.25
2	MICROSOFT IT	2	0	0	0	2	10.25
3	SYMANTEC	3	0	2	0	5	9.30
4	ADOBE INDIA	4	0	1	0	5	8.61
5	COMMVault SYSTEMS	2	0	2	0	4	7.50
6	ZS ASSOCIATES	2	10	3	3	18	6.74
7	BELZABAR SOFTWARE	1	0	1	0	2	6.48
8	GOOGLE	0	1	0	0	1	6.30
9	NVIDIA	0	0	1	0	1	6.20
10	PUBMATIC	1	0	0	0	1	6.00

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
11	THOUGHTWORKS	1	0	0	0	1	6.00
12	INFORMATICS	0	0	1	0	1	5.70
13	JOSH SOFTWARE	3	2	2	0	7	5.50
14	SAINT GOBAIN	0	0	0	1	1	5.50
15	DELOITTE	4	9	2	0	15	5.20
16	FMC TECHNOLOGIES	0	0	0	4	4	5.12
17	GODREJ & BOYCE	0	0	0	1	1	5.00
18	RELIANCE	0	1	2	4	7	5.00
19	JOHN DEERE	0	0	4	1	5	4.76
20	GS LAB	2	1	2	0	5	4.50
21	MU SIGMA	4	14	5	3	26	4.50
22	REDPANDA INNOVATION LAB	0	0	1	0	1	4.50
23	ROUTERABBIT	0	1	0	0	1	4.50
24	SAPIENT	4	3	2	0	9	4.50
25	SAPIENT NITRO	1	0	3	0	4	4.50
26	KIRLOSKAR GROUP	0	0	0	1	1	4.00
27	SYNYGY	0	0	1	0	1	4.00
28	3D PLM SOFTWARE	0	0	0	6	6	3.60
29	ENTECRES LABS	0	2	0	0	2	3.60
30	ALFA LAVAL	0	0	0	4	4	3.50
31	ACCENTURE	15	38	16	25	94	3.33
32	HSBC	0	2	0	0	2	3.30
33	COMPASSITES	0	0	1	0	1	3.20
34	EDELWEISS	0	2	0	0	2	3.20
35	INFOSYS BPO	0	2	0	2	4	3.20
36	HARBINGER GROUP	0	0	1	0	1	3.00
37	HINDUSTAN CONSTR CO	0	0	0	1	1	3.00
38	INFOSTRETCH	2	0	5	0	7	3.00
39	NTT DATA	0	3	1	0	4	3.00

S. No.	NAME OF FIRM	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
40	R SYSTEMS	0	0	4	0	4	3.00
41	SPIDERLOGIC	0	0	1	0	1	3.00
42	TECH MAHINDRA	1	1	0	1	3	3.00
43	WHIRLPOOL	0	1	0	1	2	3.00
44	SUZLON	0	0	0	4	4	2.64
45	BOOK MY SHOW (BIGTREE)	0	0	0	0	0	2.50
46	PARAGYTE TECHNOLOGIES	0	0	1	0	1	2.50
47	DIGIAPT	2	0	0	0	2	2.40
48	CNC BALL SCREWS & BEARINGS	0	0	0	5	5	2.00
ARMY		0	2	0	4	6	
<b>TOTAL NO OF STUDENTS PLACED</b>		<b>43</b>	<b>89</b>	<b>53</b>	<b>50</b>	<b>235</b>	<b>(235/276)</b>
<b>TOTAL NO OF OFFERS</b>		<b>54</b>	<b>95</b>	<b>65</b>	<b>72</b>	<b>286</b>	<b>85%</b>

Average Salary - Rs 4.32 LPA

**DETAILS OF CAMPUS RECRUITMENT**  
**BE 2014-15**

S. No.	COMPANY NAME	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
1	AMAZON	2	0	0	0	2	15.00
2	MYNTRA	5	1	1	0	7	15.00
3	COMMVAULT	1	0	0	0	1	13.50
4	MICROSOFT IT	8	0	0	0	8	10.25
5	SYMANTEC	1	0	1	0	2	10.00
6	BELZABAR SOFTWARE	0	0	1	0	1	8.64
7	C42 ENGINEERING	1	0	1	0	2	8.40
8	ZS ASSOCIATES	1	3	4	2	10	6.68
9	JOSH SOFTWARE	3	0	0	0	3	6.50
10	THOUGHTWORKS	5	0	0	0	5	6.23

S. No.	COMPANY NAME	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
11	HELPSHIFT	1	0	0	0	1	6.00
12	SABA SOFTWARE	8	0	2	0	10	5.75
13	DELOITTE	7	6	4	0	17	5.35
14	FMC TECHNOLOGIES	0	0	0	4	4	5.28
15	MAQ SOFTWARE	0	0	1	0	1	5.00
16	JOHNDEERE	0	0	0	4	4	4.76
17	EDELWEISS	0	1	0	1	2	4.75
18	MU SIGMA	6	14	4	1	25	4.5
19	SAPIENT GLOBAL MARKETS	2	4	1	0	7	4.5
20	INA BEARINGS (SCHAEFFLER)	0	0	0	2	2	4.25
21	TAVISCA SOLUTIONS	3	1	0	0	4	4.25
22	TABS100 PVT LTD	2	2	0	0	4	4.20
23	WEBONISE LAB	1	0	1	0	2	4.2
24	ORACLE FINANCIAL SERVICES	0	1	0	0	1	4.09
25	CAPITALVIA GLOBAL RESEARCH LTD	2	5	1	1	9	4.08
26	3DPLM SOFTWARE	0	0	1	2	3	4.00
27	BOOK MY SHOW	0	0	2	0	2	4.00
28	KIRLOSKAR GROUP	0	0	0	3	3	4.00
29	PEEL-WORKS	1	0	1	0	2	3.60
30	PERSISTENT SYSTEMS	0	0	1	0	1	3.60
31	ALFA LAVAL	0	0	0	2	2	3.50
32	CONTINENTAL AUTOMOTIVE	0	2	0	0	2	3.50
33	PREMIUM TRANSMISSIONS	0	0	0	1	1	3.50
34	HSBC SOFTWARE	3	6	3	0	12	3.30
35	INFOSYS BPO	1	2	0	1	4	3.20
36	TATA CONSULTANCY SERVICES	9	45	18	32	104	3.20

S. No.	COMPANY NAME	COMP	E&TC	IT	MECH	TOTAL	CTC (RS IN LAKH)
37	CAPGEMINI	0	1	1	0	2	3.05
38	DIMENTRIX TECHNOLOGIES	2	0	1	0	3	3.00
39	EAGLE BURGMANN INDIA	0	0	0	1	1	3.00
40	L&T INFOTECH	0	7	2	0	9	3.00
41	BIRDVISION	3	4	1	0	8	2.80
42	INTELEGENCIA	2	3	1	0	6	2.80
43	FOCUS ACADEMY OF CAREER ENHANCEMENT	0	2	1	2	5	2.64
44	BITWISE	1	0	2	0	3	2.50
45	MPHASIS	1	3	2	0	6	2.50
46	CAPSTONE	0	1	0	0	1	2.30
47	ELITMUS	0	0	0	1	1	2.30
ARMY		0	3	1	2	6	
<b>TOTAL NO OF STUDENTS PLACED</b>		<b>53</b>	<b>99</b>	<b>50</b>	<b>47</b>	<b>249</b>	<b>(249/270)</b>
<b>TOTAL NO OF OFFERS</b>		<b>82</b>	<b>115</b>	<b>60</b>	<b>62</b>	<b>319</b>	<b>92%</b>

Average Salary - Rs 4.50 LPA

**5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.**

Grievance Redressal Committee:

S.No.	Committee Members	Designation	Department
1	Dr. B.P. Patil	Principal	Admin
2	Dr. S.R. Dhore	HOD	Comp
3	Dr. Sujata Marathe	HOD	ASGE
4	Prof. Ms. Sushma Wadar	Asst Prof	E&TC
5	Mr. R.P. Ambike	Registrar	Admin

No case has been reported to the committee in last four years. This could be because most student grievances are redressed directly through the Extended Student Council Meetings (ESCM) conducted by Director and Principal. Minutes of these meetings are separately maintained in a register. A few

representative grievances that were redressed in these meetings are shown in the table below –

S. No.	Grievance	Date of raising	Action taken
1	Staggering of lunch time required	11 Aug 2011	Implemented in time table
2	More placement training required	10 Sept 2011	Workshop conducted
3	Various maintenance required in hostels	16 Mar 2013	Maintenance carried out as required
4	G+ profile page to be linked to our website	03 Oct 2013	Implemented
5	Wi Fi service needs improvement	17 Jan 2014	Wi-Fi flank in-charges reporting to HOD Computer. Stronger signal strength switches procured
6	Every student's co-curricular activity profile to be displayed to companies for placement	14 Aug 2014	Co-curricular credit based system (CCCBAS) introduced in Counseling registers.

#### 5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

There is a committee for prevention/ action against sexual harassment. Women's Sexual Harassment committee

S.No.	Committee Members	Designation	Department
1	Dr. B.P. Patil	President	Admin
2	Dr. (Mrs) Sangeeta Jadhav	Chairperson	HOD, IT
3	Prof. (Mrs) Surekha K.S.	Teaching Rep	HOD, E&TC
4	Mrs. Rajashree C	Non Teaching Rep	E&TC
5	Girls Students Rep	Student	
6	Sqrdn Leader (Retd). B.R. Gulati	Member	

No case reported in the last four years.

#### 5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes we have an anti-ragging committee All the students are aware about helpline of anti- ragging & it is displayed on notice board also.

## Anti-Ragging committee for 2014-15

S.No.	Committee Members	Designation	Department
1	Dr. B.P. Patil	Principal	
2	Sqn. Ldr. B R Gulati (Retd)	Member NGO, Rotary International	
3	Mr. Shashwat Guptaray	Special Correspondent, Sakal Times	
4	Mr. Badewali Mukhaid Gani	Supdt., Zilla Sainik Welfare Office	Rep Civil Administration
5	Police	Representative , Police Authorities	Police Station
6	Dr. J.B. Sankpal	HOD, Mech & Chief Rector	Boys Hostel
7	Dr. (Mrs) Sangeeta Jadhav	HOD,IT & Rector	Girls Hostel
8	Lt Col SP Changotra (Retd)	Rector	Boys Hostel
9	Hony Capt Sham Lal Pathania (Retd)	Warden	Boys Hostel
10	Mrs Kiran Khosla	Warden	Girls Hostel
11	Sub. Thankachan KV (Retd)	Rep. of Parent	
12	Sub. Maj. Gireesan A P	Rep. of Parent	
13	Mr. Mahesh Shinde	Warden	Boys Hostel
14	Ms Shilpa Minhas	GS (Girls)	
15	Mr Abhay Pandey	GS (Boys)	
16	Ms Kriti Shukla	Student	First year student
17	Mr Ayush Chauhan	Student	First year student

In 2013-14, based on an anonymous complaint by a first year student the anti-ragging committee investigated the matter and found seven students guilty of ragging some first year students. Based on the findings of the committee and severity of crime, three students were expelled for three years and four students for one year. Following a writ petition by these students in court, and the Management Committee agreeing to reduce their sentence, the Honorable High court in 2015 brought down the sentence to one year with a fine of Rs 5000/- and community service in all seven cases.

#### 5.1.13 Enumerate the welfare schemes made available to students by the institution.

- AGIF scholarships.
- Merit cum means scholarships.
- Health care.
- CSD facility.

**5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?**

Yes, the college has a registered Alumni Association with a dedicated Alumni website.

**ALUMNI ASSOCIATION ACTIVITIES (2011 to 2015)**

Activities of Alumni Association are broadly classified into following categories:-

- Regular activities like annual meet and regional meets.
- Interaction with college through different initiatives like guest lectures, workshops etc.
- Funding at individual and group level sponsorships for events/competitions etc.
- To refer new industries and assist TPO to fetch new industries for campus placements.
- To motivate students for career in defence forces through relevant talks and interactive sessions.
- Sponsoring projects/ internships of students

**2010-11**

Annual Alumni Meet held on 24 Sep 2011. 95 alumni attended the meet. Alumni entrepreneurs related their start-up experiences.

**2011-12**

Annual Alumni Meet held on 12 Jan 2013. 84 alumni attended the meet. Alumni and non-alumni entrepreneurs related their start-up experiences

Amalgam, alumni sponsored project competition held on 24 Mar 2012. Rs 50,000/- was awarded to 10 best TE/BE projects. Sports events like Cricket, Football, Basketball, Lawn Tennis, Badminton, Volleyball were also conducted between Alumni and AIT students.

Two companies started by alumni, i.e., Indigo Architects and Tavisca Solutions visited AIT for campus recruitment.

**2012-13**

Mr Santosh Mishra, 2004 Mechanical Alumnus (144<sup>th</sup> rank holder in IAS exam) conducted a guest lecture on 22 Aug 2012 for final year students on "How to prepare for competitive exams".

Mr Nikhil Prasad, 2004 batch alumnus, Co-founder of Tavisca Solutions conducted a guest lecture on 28 Aug 2012 for third year students on Technical competencies.

Amalgam, Sports event and alumni and AIT co-sponsored project competition, held on 06 Apr 2013. Rs 1,00,000/- was awarded to 11 best projects from SE/TE/BE. Alumni Vs AIT students sports competition was also conducted.

Annual Alumni Meet held on 05 Oct 13. 30 alumni attended the meet.

Tavisca Solutions, Druva Software, Byteridge and Maximojo Software all visited AIT due to efforts of Alumni association.

**2013-14**

Regional Alumni Meet at NCR on 21 Nov 2013. 33 alumni from NCR attended the meet.

Regional Alumni Meet at Hyderabad on 08 Feb 14. 53 alumni attended the meet.

Col Rohit Nandan Prasad, 1998 E&TC Alumnus has conducted a motivational talk on Army on 24 Sep 13 for TE and BE Students.

Annual alumni Meet held on 20 and 21 Dec 2014. 289 alumni attended the meet.

Regional Alumni Meet at Bangalore held on 17 Jan 2015. 58 alumni attended.

Amalgam, Alumni and AIT co-sponsored project competition held on 29 Mar 2014. Rs 1,10,000/- was awarded to 18 best projects among SE, TE, BE.

Regional Alumni Meet at Hyderabad on 14 Mar 2015. 26 alumni attended.

Maj. Ankush Goyal, 2004 batch alumnus delivered a motivational talk on Army on 08 Jan 14 for SE and TE students.

Druva Software, Entecres Labs, Redpanda Innovation Lab and Commvault Systems visited for campus recruitment due to efforts of Alumni association.

### 2014-15

Amalgam 2015, Alumni and AIT co-sponsored project competition for SE, TE and BE students held on 27 Mar 2015. Rs 1,00,000/- was awarded to 21 best projects among SE, TE and BE.

Mr Jitendra Sangar, (2008 Comp Alumnus), Cisco has conducted a technical workshop for BE students on interview preparation on 30 Jun 14.

Mr Anksuh Tiwari (2002 E&TC Alumnus), Agreeya Mobility helps in setting up Edvelop, a Microsoft initiative, for teaching learning platform based on cloud.

Mr Vijender Yadav (2003 Comp Alumnus) helped in developing new website for AIT.

New alumni portal has come up with a number of platforms available.

Firms visited for recruitment due to the influence of alumni - Commvault Systems, RedPanda Innovation Labs, Tavisca Solutions, Focus Academy of Career Enhancement, Dimentrix Technologies.

## **5.2 Student Progression**

**5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.**

<b>Student progression</b>	<b>Year</b>	<b>values in %</b>
UG to PG	2011-12	7.67
	2012-13	6.55
	2013-14	4.65
	2014-15	2.37
Employed • Campus selection	2011-12	92
	2012-13	81

	2013-14	85
	2014-15	92
• Other than campus recruitment –	data not available	

**5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.**

Branch	Year of exam	No. of students admitted	No. of students pass (final year)	Percentage of pass (%)
E & TC	2011-12	60	53	88.33
	2012-13	60	55	91.66
	2013-14	120	104	86.66
	2014-15	120	112	93.33
Computers	2011-12	60	51	85.00
	2012-13	59	49	83.00
	2013-14	59	53	89.83
	2014-15	60	52	86.66
Mechanical	2011-12	60	49	81.66
	2012-13	60	46	81.66
	2013-14	60	53	88.33
	2014-15	59	56	93.33
IT	2011-12	62	51	82.26
	2012-13	54	46	85.19
	2013-14	65	58	89.23
	2014-15	58	51	87.93

**5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?**

The institution motivates students to take up higher education. However due to financial considerations, majority of our students take up campus recruitment immediately on completion of the program and subsequently after two to three years pursue higher studies. The campus placement record of our college is excellent with placement percentages being in the range of 81 to 92% for the last four years.

### 5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

Students identified to be under the risk of failure/drop out are given special attention by counselors. They try to counsel these students on daily basis and keep track of the student's progress. The head of department organizes remedial classes, extra classes and assignments for such students.

### 5.3 Student Participation and Activities

#### 5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

AIT has excellent sports facilities with two basketball courts, one football field, one cricket field, one badminton court, one squash court and one tennis court and two volley ball courts. In addition both the girls' and boys' hostels have a Gymnasium, table tennis table and snooker facility. There is a full time sports instructor and many students can be seen using these facilities after college hours. An annual intra-college sports competition is held to instill a competitive spirit among our students. Many of our students participate in inter-collegiate sports competitions. Some of our students also represent Pune university in events like squash and badminton.

Details of student participation are given below :-

#### **SPORTS ACTIVITIES IN LAST THREE YEARS**

Year	Name of event	Date	Intra/Intercollege	Approx. number of participants
2012-13	<b><u>Annual sports event Sports Aakriti</u></b> Cricket Volleyball Basketball Football Badminton Chess LawnTennis Squash Table Tennis	15-31 Aug	Inter branch	300
	<b><u>Annual sports event (PACE '13)</u></b> Cricket Volleyball Basketball Football Badiminton Chess LawnTennis Squash	16-19 Feb	Inter-collegiate	1200

	Table Tennis			
2013-14	<u><b>Annual sports event Sports Aakriti</b></u> Cricket Volleyball Basketball Football Badminton Chess LawnTennis Squash Table Tennis	15-30 Aug	Inter branch	300
	<u><b>Annual sports event (PACE '14)</b></u> Cricket Volleyball Basketball Football Badminton Chess LawnTennis Squash Table Tennis	11-13 Feb	Inter collegiate	1100
2014-15	<u><b>Annual sports event Sports Aakriti</b></u> Cricket Volleyball Basketball Football Badminton Chess LawnTennis Squash Table Tennis	8-31 Aug	Inter branch	250
	<u><b>Annual sports event (PACE '15)</b></u> Cricket Volleyball Basketball Football Badminton Chess LawnTennis Squash Table Tennis	16-19 Feb	Inter collegiate	1200
	<u><b>University Squash Team</b></u>	17 Feb	Inter university	04

			(5th position)	
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### **CULTURAL ACTIVITIES IN LAST THREE YEARS**

An annual intra-collegiate cultural competition “Aakriti” is organized and enjoys immense popularity amongst students. Many of our students participate in various inter-collegiate cultural events, some of which are sponsored by our college. Being located away from the city our institute provides transport to students participating in selected -collegiate cultural events in Pune. Details of student participation during the last four years are given under.

<b>Year</b>	<b>Name of Event</b>	<b>Date</b>	<b>Intra/ Inter College</b>	<b>Approx. number of Particip ants</b>
2011-12	<b><u>AAKRITI</u></b> Choreography English Debate Hindi Debate JAM Dumb C Collage Making Poster Making Sketching Rangoli Street Play LIMS ADDICT Group Discussion Quiz English Play Article Writing	7th-9th September	Intra College	745
2012-13	<b><u>AAKRITI</u></b> Choreography English Debate Hindi Debate JAM Dumb C Collage Making Poster Making Sketching Rangoli Street Play LIMS ADDICT Group Discussion Quiz	10th-12th October	Intra College	800

	<p>English Play Article Writing Folk Dance</p> <p><b><u>AMETHYST</u></b> Hammer Away JAM Inter College Quiz BC Joshi Quiz</p>	20th-22nd February	Inter College Fest	400-500
2013-14	<p><b><u>AAKRITI</u></b> Choreography English Debate Hindi Debate JAM Dumb C Collage Making Poster Making Sketching Rangoli Street Play LIMS ADDICT Group Discussion Quiz English Play Article Writing Folk Dance</p> <p><b><u>AMETHYST</u></b> Hammer Away JAM Inter College Quiz BC Joshi Quiz Esmeralda</p>	10th-12th August	Intra College	800
	<p><b><u>AMETHYST</u></b> Hammer Away JAM Inter College Quiz BC Joshi Quiz Esmeralda</p>	17th-19th February	Inter College Fest	800-1000
2014-15	<p><b><u>AAKRITI</u></b> Choreography English Debate Hindi Debate JAM Dumb C Collage Making Poster Making Sketching Rangoli Street Play LIMS ADDICT Group Discussion</p>	1st-3rd September	Intra College	850

Quiz English Play Article Writing Folk Dance Hindi Extempore Video Speech  <u><b>AARAMBH</b></u> English Debate Hindi Debate JAM Dumb C Collage Making Poster Making Sketching Rangoli Group Discussion Quiz  <u><b>AMETHYST</b></u> Hammer Away JAM Mad-Ads BC Joshi Quiz Esmeralda Continuum Battle of Bands	2nd-3rd August	Intra College	300
	19th-21st February	Inter College Fest	1000- 1200

### TECHNICAL ACTIVITIES

An annual inter-collegiate technical completion “Solutions” is conducted every year. In addition an intra-collegiate technical competition “TECH-AAKRITI” is also held each year. Details of student participation during the last three years is given below :-

Year	Name of the event	Date	Intra/ Intercollege	Approx. number of Participa nts
2012-2013	<u><b>TECH AAKRITI</b></u> 1. Movie/Advertisem ent Making 2. Junkyard Wars 3. Debugging 4. Code Red(2 levels) 5. Blind Coding(Treasure	5-7 Jan	Intra College Competition	580

	<p>Hunt)</p> <ol style="list-style-type: none"> <li>6. Photography</li> <li>7. Tech Sudoku</li> <li>8. Nand It</li> <li>9. Operation Impedance</li> <li>10. Embedded Mines</li> <li>11. Navigator (Line Tracer)</li> <li>12. Manual Robo Race</li> <li>13. Transporter(Pick N Place)</li> <li>14. Tech Snaphunt</li> <li>15. Vulcan</li> <li>16. Ramanujan</li> <li>17. Contraption</li> <li>18. AUTOCAD</li> <li>19. TECH QUIZ</li> </ol> <p><b><u>SOLUTIONS</u></b></p> <ol style="list-style-type: none"> <li>1. Movie/Advertisement Making</li> <li>2. Junkyard Wars</li> <li>3. Fuel It Up (IC Mania)</li> <li>4. Debugging</li> <li>5. Code Red(2 levels)</li> <li>6. Blind Coding(Treasure Hunt)</li> <li>7. Photography</li> <li>8. Tech Sudoku</li> <li>9. Nand It</li> <li>10. Operation Impedance</li> <li>11. Embedded Mines (Microcontrollers)</li> <li>12. Navigator (Line Tracer)</li> <li>13. Manual Robo Race</li> <li>14. Transporter(Pick N Place)</li> <li>15. Robo Wars</li> <li>16. Tech Snaphunt</li> <li>17. Vulcan ( TPP 2 levels)</li> <li>18. Synopsis(BE Project) (3</li> </ol>			
		16-19 Feb	Inter college competition	Total - 1540 AIT- 1063 Non AIT- 477

	branches) 19. Ramanujan 20. Contraption 21. AUTOCAD 22. TECH QUIZ 23. PLANETARIUM 24. PAINTBALL			
2013-2014	<p><b><u>TECH AAKRITI</u></b></p> <ol style="list-style-type: none"> <li>1. Movie/Advertisement Making</li> <li>2. Junkyard Wars</li> <li>3. Debugging</li> <li>4. Code Red(2 levels)</li> <li>5. Blind Coding(Treasure Hunt)</li> <li>6. Photography</li> <li>7. Tech Sudoku</li> <li>8. Nand It</li> <li>9. Operation Impedance</li> <li>10. Embedded Mines</li> <li>11. Navigator (Line Tracer)</li> <li>12. Manual Robo Race</li> <li>13. Transporter(Pick N Place)</li> <li>14. Tech Snaphunt</li> <li>15. Vulcan</li> <li>16. Ramanujan</li> <li>17. Contraption</li> <li>18. AUTOCAD</li> <li>19. TECH QUIZ</li> </ol> <p><b><u>SOLUTIONS</u></b></p> <ol style="list-style-type: none"> <li>1. Movie/Advertisement Making</li> <li>2. Junkyard Wars</li> <li>3. Fuel It Up (IC Mania)</li> <li>4. Debugging</li> <li>5. Code Red(2 levels)</li> <li>6. Blind Coding(Treasure Hunt)</li> <li>7. Photography</li> <li>8. Tech Sudoku</li> </ol>	5-7 Jan	Intra College Competition	640
		16-19 Feb	Inter college competition	Total - 1230 AIT- 930 Non AIT- 300

	<ul style="list-style-type: none"> <li>9. Nand It</li> <li>10. Operation Impedance</li> <li>11. Embedded Mines (Microcontrollers)</li> <li>12. Navigator (Line Tracer)</li> <li>13. Manual Robo Race</li> <li>14. Transporter(Pick N Place)</li> <li>15. Robo Wars</li> <li>16. Tech Snaphunt</li> <li>17. Vulcan ( TPP 2 levels)</li> <li>18. Synopsis(BE Project) (3 branches)</li> <li>19. Ramanujan</li> <li>20. Contraption</li> <li>21. AUTOCAD</li> <li>22. TECH QUIZ</li> <li>23. PLANETARIUM</li> <li>24. PAINTBALL</li> </ul>			
2014-2015	<p><b><u>TECH AAKRITI</u></b></p> <ul style="list-style-type: none"> <li>1. Movie/Advertisem ent Making</li> <li>2. Junkyard Wars</li> <li>3. Debugging</li> <li>4. Code Red(2 levels)</li> <li>5. Blind Coding(Treasure Hunt)</li> <li>6. Photography</li> <li>7. Tech Sudoku</li> <li>8. Nand It</li> <li>9. Operation Impedance</li> <li>10. Embedded Mines</li> <li>11. Navigator (Line Tracer)</li> <li>12. Manual Robo Race</li> <li>13. Transporter(Pick N Place)</li> <li>14. Tech Snaphunt</li> <li>15. Vulcan</li> <li>16. Ramanujan</li> <li>17. Contraption</li> <li>18. AUTOCAD</li> <li>19. TECH QUIZ</li> </ul>	9-11 Jan	Intra College Competition	650

<b><u>SOLUTIONS</u></b>				
	1. Movie/Advertisement Making	16-18 Feb	Inter college competition	Total - 1640
	2. Junkyard Wars			
	3. Fuel It Up (IC Mania)			AIT- 1242
	4. Debugging			Non AIT- 408
	5. Code Red(2 levels)			
	6. Blind Coding(Treasure Hunt)			
	7. Photography			
	8. Tech Sudoku			
	9. Nand It			
	10. Operation Impedance			
	11. Embedded Mines (Microcontrollers)			
	12. Navigator (Line Tracer)			
	13. Manual Robo Race			
	14. Transporter(Pick N Place)			
	15. Robo Wars			
	16. Tech Snaphunt			
	17. Vulcan ( TPP 2 levels)			
	18. Synopsis(BE Project) (3 branches)			
	19. Ramanujan			
	20. Contraption			
	21. AUTOCAD			
	22. TECH QUIZ			
	23. PLANETARIUM			
	24. PAINTBALL			

Besides these two events, approximately 25% of students participate and often win prizes in technical competitions organized by colleges as well as industry, for eg., TECHNOCHAMP by John Deere, Texas Instruments Innovation Challenge, G R Sakura design contest etc. Almost hundred students publish technical papers in National and international conference with college sponsoring registration fees and transportation cost.

**5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels:**

University / State / Zonal / National / International, etc. for the previous four years.

Table of students achievements of last four years

Year	Name of event	University / State / Zonal / National / International	Name/No. of students participated	Student achievement
2011-12	Paper presentation	State	Kush Jain/1	1 <sup>st</sup> prize
	All India online programming	National	Kush Jain/1	15 rank out of 9000
	BAJA SAE INDIA 2011	National	BAJA Team (24 Students)	Most Cost effective Design (2 <sup>nd</sup> Rank)
	Algocryptix'11 Mega Tech Event	University	Tarun Sharma Aman Bhandari	2 <sup>nd</sup> Prize
	Credenz'11 (MAD Talks)	University	SaurabhTeotia Sandeep Pal	3 <sup>rd</sup> Prize
	Credenz'11 (Paper Presentation)	University	SaurabhTeotia Sandeep Pal	3 <sup>rd</sup> Prize
2012-13	BAJA SAE INDIA 2013	International	BAJA Team of 2013	2 <sup>nd</sup> prize
	All India Project Competition 'SEMICOLON'	National	Priya Dwivedi	3 <sup>rd</sup> prize
	CSI Convention	State	Kush Jain	1 <sup>st</sup> prize in paper presentation
	IEEE Programming Competition 'Gendez12'	National	Kush Jain	1 <sup>st</sup> Prize
	University Exam	University	Ms Shaliza Mayal	1 <sup>st</sup>
	National Level Students Symposium and Exposition: Hide and Seek Programming Event	National	Saurav Kumar	2 <sup>nd</sup>
	Selected as Google Student Ambassador	International	Kanhaiya Sharma	Selected

	NCAT 2013	National	NehaKurra ChiragNagpal VikasKundu	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup>
	Hide and Seek, AISSMS COE, Pune	University	Saurav Kumar	2 <sup>nd</sup>
2013-14	Amalgam 2013	University	Varsha Varghese PankajBasnal	1 <sup>st</sup>
	Microsoft HackCon 14 event	University	AvinashPande , Amit Kumar , Chandrashekhar Mehta Narendra Singh	Only One Team from Pune Region
	Movie making organized by AIT	University	Aditya Sanghi	1 <sup>st</sup>
	Paper Presentation at ESIC 2014 by ISSRD Tamilnadu	National	Shiv Kumar Rachana	1 <sup>st</sup> Prize Best Paper Award
	CSI National Programming Contest on “ Discover Thinking” at Noida	National	Sanjay Rawat	3 <sup>rd</sup> Prize
2014-15	Pitch Please IIT Bombay E- summit ,2014	National	Vikas Chandra AbhishekSanwan	1 <sup>st</sup>
	Idea Blaze IIT Bombay E- summit ,2014	National	Vikas Chandra AbhishekSanwan	3 <sup>rd</sup>
	City App Competition in Junior World Entrepreneurship Forum 2014 at E- cell, Birla Institute of Management Technology, Noida on September 2014.	National	Nitin Mishra	1 <sup>st</sup> Prize
	Presented paper titled as “Navigation System Using Optical Flow Detection	National	Shiv Kumar Rachana	1 <sup>st</sup> Prize

Technique for Visually Impaired” in national level competition ESIC 2014 by ISSRD Tamilnadu on June 2014.			
CII IWN Programming Hackathon, 29 July 2015	Zonal	Rohit Rawat Rajkamal Lashkari Shagun	II Prize
CII IWN Programming Hackathon, 29 July 2015	Zonal	Rohit Rawat M Sai Ratna Akanchha Singh Pooja Kumari	III Prize

### 5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

Feedback from the stakeholders is very much important for improving the performance and quality of the institutional provisions. The institute has a clearly set and well defined mechanism of obtaining the feedback from the students and stake holders. These feedbacks help in assessing attainment of program outcomes, program education objectives and other gaps/requirements. Institution takes -

- Mid Semester & end of semester feedback from the students
- Exit feedback from graduating students
- Alumni feedback
- Parents’ feedback
- Industry feedback from each firm after its placement process is over.

The feedback is analyzed and efforts are taken by the management to implement viable recommendations for improving the quality of the infrastructure and other facilities. It is used for improvement of the class delivery and grooming up of students as per industry requirements.

### 5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

Students publish an annual college magazine ‘SRIJNA’. A Magazine Committee consisting of faculty-in-charge and students is in-charge of this. List of student publications during last four years-

Year	Publications
2011-12	a. SRIJNA b. Four newsletters c. E magazine
2012-13	a. SRIJNA

	<ul style="list-style-type: none"> <li>b. Four newsletters</li> <li>c. E magazine</li> </ul>
2013-14	<ul style="list-style-type: none"> <li>a. SRIJNA</li> <li>b. Four newsletters</li> <li>c. E magazine</li> </ul>
2014-15	<ul style="list-style-type: none"> <li>a. SRIJNA</li> <li>b. Four newsletters</li> <li>c. E magazine</li> <li>d. Techno-cratrix</li> </ul>

### 5.3.5 Does the college have a Student Council or any similar body?

#### Give details on its selection, constitution, activities and funding.

Yes, we have a Student Council consisting of a male and female student representative in each of the following appointments: General Secretary, Cultural Secretary, Sports Secretary, Technical Club Secretary, NSS Secretary, Magazine Secretary and Spiritual Secretary. The student secretaries are selected based on interview of interested applicants. The selection committee consists of Director, Principal, Joint Director and faculty in charges. The major activities are summarized below :-

S. No.	Name of club	Name of I/C faculty	Activities
1	Technical Board	Dr. P B Karandikar (overall in-charge) Dr. R Jayadevan, IT Dr. Anita Jain, E&TC	1]Tech Aakriti (Intra college) 2]Tech Solutions(Inter college) 3]Participation by students in tech events in other colleges.
2	Cultural and Music Board	Ms. Ashwini Sakpal, IT,I/C Mr G M Walunjkar, IT Mr S M Gaikwad, Mech Ms. Meenal Bansal, E&TC Mrs. Rushali Patil, Comp	1]Aakriti 2]Amethyst 3]Battle of Bands 4]Healing by music 5] Pre-aakriti for freshers
3	Sports Club	Mr J B Jawle, E&TC,I/C Mrs. Anita Ahire, ASGE Mrs. Swati Salunke, ASGE	1]PACE (Inter college ) 2]Aakriti Sports(Intra college) 3] Inter flank sports

4	NSS Club	Ms. Chandola, ASGE, I/C Mr. Vitthal Hivrale, ASGE	1]Blood donation camp 2]Orphanage visit 3]Old age home visit 4]Collection of funds for donation 5]Independence day celebration 6]Republic day celebration 7]Cleanliness drives
5	Spiritual Club	Mr. Anup Kadam, Comp, I/C Mrs. Swati Kulkarni, ASGE	1]Yoga day 2]Mahashivratri festival 3] Krishna Janmashtami 4]Spiritual Guest lectures
6	Magazine	Ms. Shradda Oza,E&TC, I/C Mr Anand Ramgude, Mech	1]Photography competition 2]Magazine board notice board 3]E Magazine 4]News letters 5]SRIJNA
7	Open Source Software Club	Mr P. R. Sonawane, Comp I/C Ms. Nilima Walde, IT	1] OSS Club World Press Blog 2] Web Portal for AIT Incubation Centre 3]Collaborative projects based upon Open source technologies 4]Guest lectures
8	Robotics Club	Mr. Avinash Patil, E&TC,I/C Mr. Mahesh Phatangare, Mech	1) ROBOCON participation 2] Robotics Society of India activities
9	Maths Club	Mr. A.K. Singh, ASGE,IC Mr. Ganesh Mundhe, ASGE	1]Ramanujan Quiz 2]Visit to Mathematical Institute 3]Discussion sessions 4]Guest Lectures
10	Debating Club	Mr. Mrs. Renuka Bhandari, E&TC,IC Mrs. Savita Manglore, IT	1]Hindi debate in Pre Aakriti and Aakriti 2] English debate in Pre Aakriti and Aakriti 3]Intra college events for FE 4]Inter college debate in Amethyst 5] Quiz competitions

11	Astronomy Club	Mr. P B Chikte, ASGE, IC	1]Astronomy Quiz 2]Star gazing 3]Visit to IUCAA/TIFR 4]Guest lectures
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Budget expended for club activities during last four years is given below:

Club	2011-12 in Rs.	2012-13 in Rs.	2013-14 in Rs.	2014-15 in Rs.
Open source software	4,700	24,000	26,000	10,000
Magazine	2,08,403	1,30,500	2,81,764	2,45,200
Robotics	1,14,410	3,00,000	1,51,323	1,24,349
BAJA-SAE, SUPRA	1,20,000	2,90,000	2,10,000	4,31,234
Math	6,000	6,000	2,500	15,000
NSS	22,500	22,711	28,603	19,651
Cultural	1,75,286	1,99,565	2,83,174	5,03,627
Technical	5,07,386	5,36,663	5,43,295	5,89,126
Sports	3,91,987	4,04,343	4,15,708	6,06,693
Spiritual	75,745	31,923	46,290	69,331
Astronomy	-	11,523	13,371	4,570
Music	46,620	-	33,070	10,070

### 5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

Many academic and administrative committees of our college have student representation. Some of the committees with student representation during the last two years are:-

- Anti-ragging committee
- Student council
- IQAC
- Honor code committee
- Disciplinary committee (for students only)
- Student mess committee
- IT representative for wi fi services

### 5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

- The college always keeps in touch with the alumni through our college website, [www.aitpune.com](http://www.aitpune.com), separate alumni website and social networks like twitter facebook etc. Various activities taken up in the college are uploaded on You-tube to keep the alumni apprised of the events organized in the college.
- Alumni council has 15 to 20 student members. The student members coordinate with alumni for various activities.

- Each department has a PR faculty representative who coordinates with departmental alumni for placement related activities.
- During the annual alumni meet an informal interaction takes place between staff, management and alumni who give informal feedback for further development of the institute.
- The Institution is deeply associated with its former faculty. The former faculty members are invited as resource persons in seminars and workshops.

**Any other relevant information regarding Student Support and Progression which the college would like to include.**

Personality development of students is primarily driven by peer pressure. For this purpose student council members, various club secretaries, student representatives in various committees along with branch heads and class representatives are consulted on all major decisions and for routine functions. The practice of honor code develops an sense of self discipline and ethical behaviour which helps in character formation. Club secretaries are expected to organize various college events in a professional manner, including liaison with industry for sponsorships and managing their budgets. This develops a sense of responsibility, initiative and team building skills which are very essential elements required in the corporate world.

## **CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT**

### **6.1 Institutional Vision and Leadership**

**6.1.1 State the Vision and Mission statement of the institution and give details on how the institution a) ensures that the vision and mission of the institution is in tune with the objectives of the Higher Education policies of the Nation? b) Translates its vision statement into its activities?**

#### **VISION :**

- Strive for excellence in providing the right Environment for Development of Physical, Intellectual, Emotional and Spiritual Quotients with a view to produce Total Quality Engineers preparing them to face challenges of Modern Information Society.

#### **MISSION :**

- Provide state of art infrastructure till deemed sufficient through input of staff and students for building up a centre of excellence.
- Nurture and foster an academic fraternity to cater to the need of the Engineering students community.
- Encourage and motivate staff and students to utilize the facilities provided to them, with their innovative and creative thinking in an effective way for their overall development.
- Augment all available avenues to develop staff and students for emerging need of society and develop Army Institute of Technology into a Global Centre of excellence in the field of Technical Engineering Education.

Our vision and mission are in tune with the objectives of the Higher Education policies of the nation since pursuit of excellence in chosen field of study and inculcating core values in students is the ultimate goal of Higher Education.

Measures taken to translate the vision into activities are -

- Participative management.
- Providing high class infrastructure for academics, sports and cultural activities for all round development.
- Interaction and coordination with industries to make students into total quality engineers.
- Involvement of all stakeholders in decision making bodies.
- Transparent policies.
- Qualified faculty.
- Providing a highly secure and fully residential campus with all amenities to ensure effective teaching learning process.

### **6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?**

The top management of this institute consists of a Board of Governors and its executive committee at Army Headquarters (headed by Chief of Army Staff and assisted by the Adjutant General of the Indian Army with his staff members) and Board of Administration at Headquarters Command (headed by the Chief of Staff as Patron of the college of Lt. General's rank) and Chairman of the college (Chief Signals Officer at Headquarters Command of Major General's rank). Director of the institute is responsible for overall functioning

of the college. Their role in design and implementation of the institute's quality policy is as follows:-

- Formulate and issue guidelines on matters related to improvement of academic standards of the institution.
- Decide policy in regard to initial corpus grants to the college, and issue guidelines for sound financial management of the college.
- Development and maintenance guidelines for state-of-the-art infrastructure.
- Monitoring of the overall academic performance and placements of the students.
- Monitoring of the recruitment procedures as per laid down SOP.
- Laying down scholarship policy.
- Conducting Annual Academic inspection of the college.
- Approve awards by disciplinary committee and decide appeals against disciplinary awards.

Principal's role is as follows:-

- Head of the IQAC
- Plan each semester's academic calendar in advance
- Supervise, guide and control the work of teaching, non teaching staff of the college.
- To guide the faculty members and promote their professional growth
- To ensure that faculty impart outcome based learning to students and that the laid down objectives are achieved.
- To supervise classroom teaching and secure cooperation and coordination among faculty members.
- To organize orientation programs for newly recruited faculty.
- To periodically organize various co-curricular activities.
- To organize in service training of faculty.
- To develop and organize library resources and reading facilities.
- To liaison with AICTE, UGC, University and other regulatory bodies and carry out changes in curriculum as required.
- To organize meaningful industry-institute interaction.
- As chairperson of the IQAC, to ensure that all quality benchmarks are met and suggest new benchmarks based on inputs of IQAC members and interaction with other stakeholders

Faculty members implement the quality improvement measures and provide feedback to the Principal for course correction if required.

### **6.1.3 What is the involvement of the leadership in ensuring :**

- **the policy statements and action plans for fulfillment of the stated mission**
- **formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

**- The policy statements and action plans for fulfillment of the stated mission**

The management encourages participation of staff in the process of decision making in institutional functioning. In line with the objectives, the management makes budgetary provisions for providing the resources for learning and growth of the College. The institution admits students of army background from all over India. The mission is to produce highly competent engineers with excellent technical and behavioral skills. The management proactively supports all the activities that mould the students into worthy citizens of the society. The Governing Body ensures that the policy statements and action plans are fulfilled in accordance with the stated mission of the institution

**- Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**

The college management has prepared a 10 year perspective plan for institutional growth based on its vision, mission and objectives. The management maintains transparency in formulating and communicating the action plans of the organization to all its employees through clear cut procedures and delegation of authority to achieve positive results in improving performance of the institution. Prior planning is made by every department well before the commencement of the academic year and after careful scrutiny, the budget is allocated for improving infrastructure and development of the institute. Based on the objectives, the management advises the staff to accomplish the strategic plans through various activities. Success is ensured through strict adherence to the action plans, although periodic review is done for mid course direction if required..

**- Interaction with stakeholders**

The College makes conscious efforts to build a healthy relationship with its stakeholders namely - students, parents, alumni, industry. The inputs and feedback about the functioning and various other aspects of the College are collected through a number of channels. The feedback received from all stakeholders are reviewed, analyzed and remedial actions are initiated. Interaction of the Principal with various stakeholders, the faculty and the parents helps the institution in proper implementation of policies. The participatory role of the management encourages and sustains the involvement of the College staff, which is necessary for the efficient and effective running of the College.

**- Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**

The institution has adopted the strategy of periodical feedback system, parent-teachers meetings, discussion with alumni and students for sustainable interaction with the stakeholders. Feedback from industry representatives is taken in a formal manner at the end of every placement activity as well as on the performance of student interns and in sponsored projects. The inputs collected from various stakeholders are taken into cognizance by the management and through various interactive methods with the staff helps them in identification of critical areas for development and reviews progress in continuous improvement.

**- Reinforcing the culture of excellence**

Faculty members are encouraged to pursue research activities and to participate and organize seminars/workshops/conferences to keep the faculty abreast of the recent trends in teaching, learning & evaluation, and their specialized area of interest, thereby reinforcing a culture of excellence. They are also given special permission on duty to attend refresher and orientation programmes. They are encouraged and motivated to be a member of various academic bodies. Best Teacher and Best Result Awards encourage the spirit of excellence in the endeavors of the faculty. Such practices create an ambience that is most conducive for academic excellence.

**- Champion organizational change**

Though anchored with stable organizational goals and objectives, the management wants to inculcate dynamism in the institution by responding to genuine demands for change in laid down procedures. Changes in the existing rules and regulations are brought about after a thorough discussion in Local Management Council meetings, Governing body meetings and AWES Directors' conferences based on inputs from the ground level and the needs of the present generation. The college follows a structured approach for ensuring that changes are smoothly and successfully implemented. In order to accomplish this, the stakeholders expectations are aligned, communicated, and integrated with employee's efforts for growth of the institution. Thus, academic and administrative matters are brought to the notice of the management to champion the changes required by the organization.

**6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?**

The College has a clear and well defined system to monitor and evaluate the effectiveness and meaningful implementation of the policies and plans of the institution. Periodical staff meetings at department level and Heads meeting at Institution level along with representatives of various committees are conducted for effective and timely feedback. For effective implementation of policies and plans, the institute emphasizes on the reviews and feedbacks by various stakeholders for evaluating the effectiveness of the policy decisions.

**6.1.5 Give details of the academic leadership provided to the faculty by the top management?**

Management develops leadership capacity by broad basing leadership involvement amongst both teachers and students through staff representatives and student secretaries in all important activities of the college, for example, technical secretary, sports secretary, cultural secretary, open source software secretary, etc. work under the guidance of their respective staff in charges. Class teachers in consultation with the head of department decide on their respective lesson plans, class tests, assignments, projects, industrial visits and guest lectures. This enables more individuals to build their own informal authority and demonstrate leadership behavior.

**6.1.6 How does the college groom leadership at various levels?**

Director discusses all administrative and academic issues of consequence with all academic and administrative Heads every Friday afternoon in the

Conference Hall and issues directions after reaching a consensus with timelines and accountability.

Director broadly monitors each student's progress online and closely monitors the top performers as well as weak students by quarterly interview.

Brainstorming session is conducted once in every semester to obtain solutions to existing problems and willing staff members and students get involved in implementing the solution.

**6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?**

The budget is decentralized. All heads of departments are empowered for expenditure pertaining to their department. The role of each individual/department is clearly mentioned in the rule book/SOP. This ensures smooth running and decision making by each individual / department.

As Head of Academics, the Principal is independent to take any decision in conformity with various rules /statutes of Savitribai Phule Pune University.

**6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.**

Yes. Participative management is promoted through involvement of staff at all levels of decision making. A weekly meeting of departmental and division heads is chaired by Director and major quality improvement measures are discussed and debated in these meetings. Policy decisions regarding IT infrastructure are taken in consultation with HOD(Computer). First year admissions are carried out by Admission Cell which is headed by HOD(ASGE). The Chief Rector for Boys' and Girls' hostel are HOD (Mechanical) and HOD(IT) respectively. Faculty Placement representative from each department along with student members are part of the PR Cell. Faculty members and staff members of all departments are on various committees, like local management committee (LMC), staff selection committee, purchase committee, technical evaluation committee (TEC), price negotiation committee (PNC), migration committee, disciplinary committee. The R&D cell, Academic advisory Committee, Industry-Institute interaction cell are all composed of faculty members with student representation also in a few committees. Staff members are also members of board proceedings for monitoring of Projects. Students give valuable inputs to management in the monthly extended student council meetings (ESCM) based on which a number of quality improvement measures have been implemented.

**6.2 Strategy Development and Deployment**

**6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?**

Yes, our college has a formally stated quality policy as follows – “To provide an environment for quality education, enabling students to become lifelong learners and responsible citizens to face challenges of a diverse and changing modern world, through experiences inside and outside the classroom that join the general and the specialized, theoretical and practical courses in engineering field, thereby providing skilled manpower and young

entrepreneurs for industry, defense and society at large in a competitive global economy”

The Institution is committed to imparting quality education and training, in the field of engineering and technology. The College strives hard in achieving high standards of teaching, training and development of human resources by encouraging its faculty and staff to work as a team and to update their knowledge and skills continually to match the needs of industry. Based on this idea the quality policy was developed. All the activities are driven by the quality policy and are closely monitored. The various performance indicators like pass percentage, research, placements, achievements in co curricular activities of students and the achievements of the faculty are analyzed and reviewed. The ISO audits and NBA visits ensure that standards of academic, non-academic, and administrative qualities are met with the institutional support.

### **6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.**

Yes, the college has a Perspective plan. As per this plan institution has

#### **Short Term Objectives (2 years) by AY 2016-17**

- Attract high merit UG students with last cut-off at 600 AIT merit (750 at present) for 300 vacancies.
- Achieve excellent teaching-learning environment to achieve:
  - Less than 5 % failures in each year,
  - 50% and 80 % students scoring above first class in 3<sup>rd</sup> and 4<sup>th</sup> years respectively,
  - One University rank holder in at least two Departments,
  - 100% faculty with PG degree,
  - 25% Faculty with PhD degree.
- Achieve placement of 35% students in core high-end companies and maintain an overall placement of 90% students.
- Initiate Post-graduate courses and enhance Industry – Institute interaction and R & D activities to a score of 60% NBA score (from 40 % at present).
- Achieve 5 % placement in the Armed Forces.
- Introduce Civil Engineering UG department with hostel facilities to exploit inevitable infrastructure boom in the coming years.
- Achieve NBA accreditation for all Departments for 5 years.

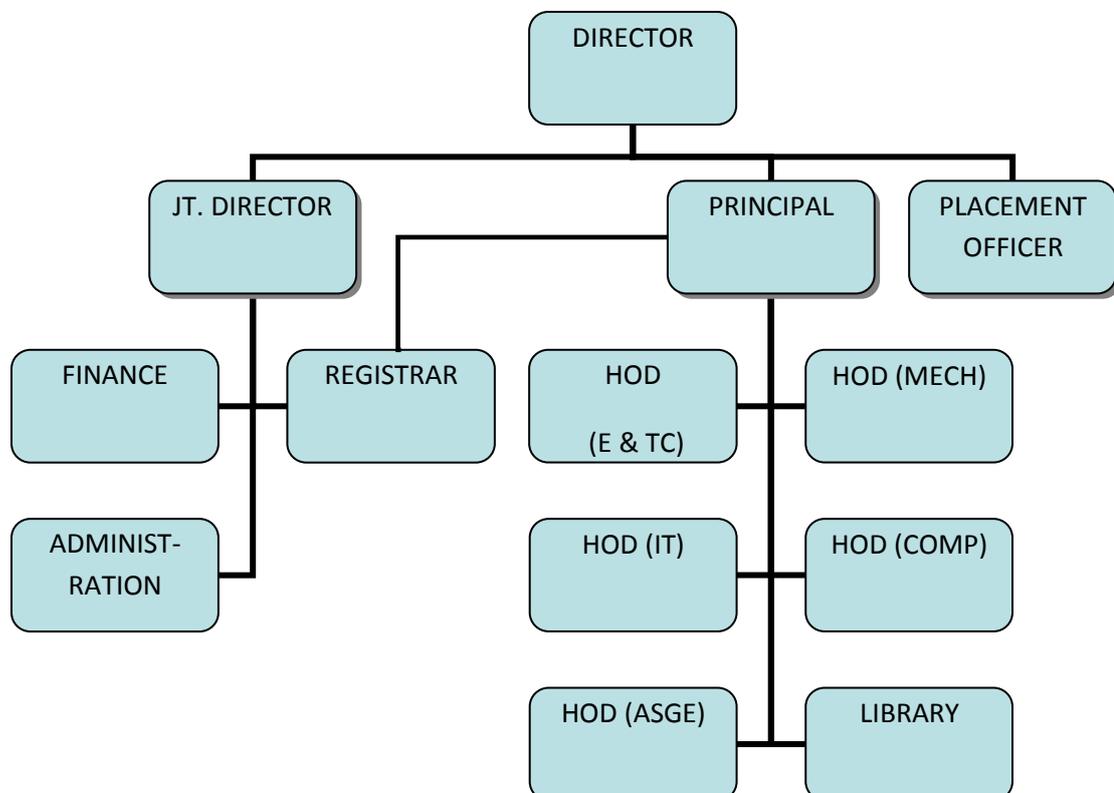
#### **Long-term Objectives (5 years) by AY 2019-20.**

- Attract high merit UG students with last cut-off at 500 AIT merit for 360 vacancies.
- Maintain excellence in teaching-learning environment to achieve:
  - Zero failures in each year,
  - 60% and 85 % students scoring above first class in 3<sup>rd</sup> and 4<sup>th</sup> years respectively,
  - One University rank holder in each Department.

- 35% faculty with PhD degree.
- Achieve placement of 60 % students in core high-end companies and an overall placement of 100% students.
- Introduce second Post-graduate course and enhance Industry-Institute interaction and R&D activities.
- Receive consultancies and research grants up to Rs 1 crore from firms and AICTE/ UGC/ Pune University.
- Achieve an NBA score of 80%.
- Introduce foreign exchange programs in AIT.
- Achieve autonomous status under Pune University and introduce continuous assessment system and industry-friendly syllabus in AIT.
- Achieve at least one Patent per Department per year.

**6.2.3 Describe the internal organizational structure and decision making processes.**

#### ORGANIZATION CHART



For decision making processes we have a well structured Governing Body & Local Management Committee.

Points discussed and decision taken by the LMCs and GBMs in the last four years:-

08 March 2011 (LMC)

- Confirmation of minutes of last LMC meeting.

- Action Taken Report on last LMC decisions.
- Revised Budget for A.Y. 2011-12 taking into consideration “Expansion of E&TC & upgradation of Labs due to revised syllabus” .
- Approving the Staff requirement for A.Y. 2011-12.
- Consideration of proposal for introduction of PG course in E&TC/Mech Dept.
- Consideration of proposal for introduction of Student Activity Centre, Placement Cell and R&D Cell in New Library building.

#### 11 Nov 2011 (LMC)

- Application for permanent affiliation with Pune University.
- Measures for improving attendance / academic performance.
- Guest Lectures and Industrial Visits.
- Activity Report of current semester.
- Value Added Programmes.
- The status of actual expenditure as on date was informed to the Committee which was also noted and appreciated.
- Placement of Batch 2011-12 till date was informed to the Committee.

#### 20 April 2012 (LMC)

- Requirement of Faculty for AY 2012-13 is approved.
- Discussion on feasibility of undertaking ATB projects/ Research projects by AIT.
- Approval for Policy decisions taken since last LMC meeting.
- Approval of Budget 2012-13.
- Implementation of sixth pay for Non-Teaching Staff.
- Medical facilities for Non-Teaching Staff.
- Regularize existing Adhoc Staff.

#### 22 Dec 2012 (LMC)

- Approval of appointment of Teaching & Non-Teaching Staff after April 2012.
- Approval of Adhoc Faculty requirement for AY 2013-14.
- Approval of the various Equipments/Instruments recommended by condemning boards from 1994 to Dec 2012 from all Departments.
- Policy for deputation of Faculty under QIP program for PhD.

#### 25 Jul 2013 (LMC)

- PG in Mech Engineering wef 2014-15.
- Request for no medical certificate for less than 3 days SL.
- Request for No Bonds for doing PhD without benefits.

#### 23 Jan 2014 (LMC)

- Approval Staff requirement AY 2014-15.
- Approval Value Addition Courses payment policy.
- Approval for Condemnation Board proceedings up to Jan 2013.

#### 11 Aug 2014 (LMC)

- Revision of migration policy in Second Year as per UOP rules with effect from 2015-16.
- 30% increase in Tuition & Hostel fees in 2015-16.

#### 22 Jan 2015 (LMC)

- Approval for policy decision taken since last LMC meeting.
- 20-21 Dec 2014 Alumni Meet follow up measures.
- Credit Based Assessment System for Student Co-curricular Activities.

#### 29 June 2011 (GBM)

- PG Dept in E&TC/Mechanical Engg.
- Student Activity Centre.
- Sewage Treatment Plant proposal is approved.
- Rainwater Harvesting Scheme is approved.

#### 4 Jun 2012 (GBM)

- PG in Mech Engg with permission to allot 50% seats for Civilian Student wef 2013-14.
- Upgradation of Football Ground.
- Sarva Dharma Sthal.
- Medical Insurance Scheme for Non-Teaching Staff.

#### 26 Jun 2013 (GBM)

- Construction of a proper Boundary Wall to replace the existing Chain-link Fencing.
- Compulsory Martial Art/ Yoga morning classes for FE Students.
- Discussion on measures to improve Academic Results of SE and TE Students.

#### 25 Sept 2014 (GBM)

- Discussion on measures to include Technology Assisted Learning in the Teaching Learning Process.
- Discussion on measures to improve Employability of our Students.
- Discussion on measures to improve Hostel Environment.

### **6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following**

- **Teaching & Learning**
- **Research & Development**
- **Community engagement**
- **Human resource management**
- **Industry interaction**

#### **Teaching and Learning**

The Management ensures effective and efficient teaching learning process by:

- Providing State-of-the-Art infrastructure conducive to intellectual growth and all round personality development.
- Providing diverse opportunities by creating Wi-Fi facilities in the campus /hostels.
- Recruiting highly qualified and competent teaching faculty.
- Encouraging the faculty to do higher studies.
- Promoting professional development of faculty by providing support
  - a. to undergo refresher courses
  - b. to equip themselves in using modern pedagogical tools
  - c. to pursue doctoral programmes
  - d. to attend and organize National and International conferences
  - e. for publishing papers

#### **Research and Development**

The College has created a very encouraging atmosphere for the faculty members by involving them in research activities to face the challenges of the modern world. The College has established Research and Development Cell to

promote research aptitude among faculty and students with the following activities.

- Teachers are encouraged to submit more research publications and projects.
- Eminent scientists and speakers are invited for talks.
- Industry stalwarts are invited to interact with students and provide exposure to help them develop entrepreneurial skills.
- Motivating them to attend seminars, workshops, refresher courses and international & National Conferences.
- Publication in journals .
- Providing the facility of subscription of online journals.
- Providing incentives for consultancies.

### **Community engagement**

NSS organizes outreach programmes to enable the students to respond to the larger issues of society by visiting orphanages and old age homes. Staff and students are actively involved in community activities such as blood donation, tree plantation, Clean and Green, Tobacco free and 'Swachh Bharat Abhiyaan' .

### **Human resource management**

The institute has a very good mechanism for assessing required human power requirements, staff recruitment, monitoring and planning professional development programmes and obtaining feedbacks. Employees are given utmost importance and their needs are recognized well. The service rules are made transparent and they are benefited with Provident Fund, Gratuity etc. The faculty and staff are entitled with other benefits like Casual Leave, Earned Leave, Medical Leave, Maternity Leave, adequate vacation, accommodation in quarters/hostels. Faculty trainings are conducted periodically to acquire technical skills, teaching skills and soft skills. The College also encourages quality improvement programmes and deposes faculty on leave for higher education.

### **Industry interaction**

The institution has an institute industry interaction cell for providing exposure to our students and helps them to develop entrepreneurial activities. They are sent for internship programmes in the relevant industries of their domain, thus exposing and preparing them to meet the real time requirements in the industry. Hence, the institution creates a tie up and signs MOUs. Every academic year it is made sure that the students are taken for industrial visits. The feedback from the industry with regard to the teaching quality, curriculum, and infrastructural requirements are considered and decisions are taken after going through the available resources and modalities.

"One faculty one industry" concept is introduced to strengthen industry institute interaction.

**6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?**

Principal conducts Faculty meetings regarding the student feedback and the necessity of improvement in various aspects.

Feedbacks are collected from parents during Parents meeting at regular intervals.

Institutional performance is studied by the apex body governing the institution.

Feedback from the students is collected and corrections made by teacher as required .

**6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

The management plays a vital role in bringing up the faculty forward to initiate and gain competitive edge through their personal involvement in many activities like

- Heading various committees at College level
- Empowering individual faculty members through decentralized functioning mechanism
- Faculty training programs
- Preparing annual budgets
- Idea generation and implementation
- Formal/Informal meetings with the Management periodically
- Awards, appreciations and recognitions to staff

**6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.**

<b>Resolutions made</b>	<b>Status</b>
Permanent affiliation to be obtained	Obtained in 2014
PG in Mechanical Engg from 2014-15	Started in 2015-16
Revision in migration policy in second year with effect from 2015-16	Implemented in 2015-16

**6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?**

Yes, AIT plans to apply for autonomy in 2017-18

**6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?**

- Grievance committee is constituted for redressal of the grievances of faculty, staff & students.
- Students bring out their common grievances during the monthly extended student council meetings (ESCM) with Director.

- A Student may send his/her grievance to the Principal/Director/Jt Director over email (eg., principal@aitpune.edu.in)
- He /she can put a note in the suggestion boxes located near the Reception, outside head of department office, hostel etc.

**6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute ? Provide details on the issues and decisions of the courts on these?**

Cases under progress in various courts :

S.No.	Case	Court
1	Five hostel attendants on contractual appointment	Industrial court at Pune
2	Asst. Librarian on contractual appointment	Industrial court at Pune
3	Non-teaching staff of AIT for 6th Pay Commission arrears	Central Government Industrial Tribunal at Mumbai

**6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?**

The institute has a clearly set and defined mechanism for obtaining the feedback from the students to improve the performance and quality of the institution's performance. Issues raised by students in periodical formal/informal feedbacks, Alumni feedback, interviews of students with Director, ESCM points, Flank in charge meetings in the hostels are collected regarding teaching learning process and other administrative aspects of College functioning. The suggestions obtained from the feedback are deliberated upon in HOD meetings, LMC and GB meetings and solutions are arrived at and implemented. For example, requirement of extra value addition courses, faster wi-fi service, modern gymnasium, bigger dining hall facilities are a few which have been implemented.

### **6.3 Faculty Empowerment Strategies**

**6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff?**

The management is fully aware of updating the knowledge and skills to face the evolving challenges. To enhance the professional development of teaching staff, the institution :

- Encourages faculty to take part in National/International conferences and their leave or absence is treated as on duty
- Faculty members are motivated to organize workshops/FDPs/conferences in the College
- Faculty members are encouraged to do PhD as per college PhD policy
- Faculty members are encouraged to publish research papers.
- Programmes that impart professional development, career development. and personal development of faculty members are conducted.
- Incentives for working on consultancy projects.

To enhance the professional development of the non-teaching staff, the institution

- encourages its staff to update their computer knowledge.
- encourages its staff to get training in advanced skills related to their work.
- Incentives for working on consultancy projects.

### **6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?**

Faculty empowerment is being done in four dimensions:-

Decision making, Professional growth, Employment status and self efficacy.

- Decision making: faculty members are given freedom to take critical decisions on student related issues, including actions taken on delivery of course curriculum and disciplinary grounds. Every faculty member is responsible for documentation of course file to include individual schedule, syllabus, lesson plan, assignments, class tests, presentations and study materials. being staff -in -charge of various clubs.
- Professional growth: This is promoted by measures like -  
-sponsorship for PhD  
-Incentives for participation in seminars, workshops and paper presentations in approved national and international conferences  
-Incentives for academic R&D activities  
-Reward and recognition measures like, Best Result award, Best Teacher award.
- Employment status : To provide job security and promotes a sense of belonging to the institute. Transparency in governance is practiced. CAS is implemented as per UGC guidelines to promote retention and job satisfaction
- Self efficacy : To empower the faculty members to be equipped with the skills and ability to help students learn, and be familiar with the latest developments in their field of knowledge through Faculty Development programs.

### **6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.**

Faculty Performance appraisal system is used to evaluate the performance of each faculty member. Standard format suggested by AICTE/UGC is used for taking the self assessment report.

The format takes into consideration teaching activities, administrative activities and research and development activities of each faculty member.

In case of non teaching staff standard college format is used.

### **6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?**

The performance appraisal reports are assessed by the Principal and Director and discussed with the individual.

**6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?**

The institution has tried to maintain a good environment for teaching and non teaching staff.

Staff Welfare Schemes	Percentage or number benefited
Group Accident Insurance scheme	100%
Festival Advance	interested non-teaching staff
Computer purchase by loan facility	interested teaching and non-teaching staff
Mid service encashment of earned leave	To eligible non teaching staff

**6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?**

- All faculty are paid pay and allowances as per norms of Government of Maharashtra.
- Reward and recognition measures.
- Implementation of CAS policy as per UGC guidelines
- Incentives for taking up consultancies and testing work.
- Ph D policy for pursuing Ph D.

**6.4 Financial Management and Resource Mobilization**

**6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?**

- Budget requirement from all heads of department is taken before the beginning of every financial year and approval sought from the management. This takes into consideration the recurring and non recurring expenditure requirement. The approved budget is expended as per SOP taking CFA approvals as per laid down government procedures.
- Purchases are made with recommendations of duly constituted purchase committee. Audit is done by the Chartered Accountants, at the end of the every year.

**6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.**

- The institution has appointed Hemant Shah & Associates , Chartered Accountant, Vishrantwadi, Pune.to carry out external audit. Last audit was done on 15.09.2014.
- In addition Quarterly Audit Board by Station HQ Kirkee and Quarterly Surprise Check of Accounts by Station HQ Kirkee are carried out.

**6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.**

Details	2011-12 (In Lakhs)	2012-13 (In Lakhs)	2013-14 (In Lakhs)	2014-15 (In Lakhs)
Income	1483.75	1578.73	1584.68	1738.32
Academic expenses	225.53	210.29	146.57	195.01
Administrative expenses	942.93	1108.83	1188.42	1498.71
Reserve corpus fund	4039.76	4333.97	4660.50	4841.55

**6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).**

Additional funding in the form of research grants have been obtained from agencies like BCUD, AICTE and Army Headquarters. In the last four years total funding of 50 lacs has been obtained from BCUD and AICTE which was utilized for faculty research and laboratory development. Army Headquarters has granted 150 lacs in the last four years which was utilized for modernization of laboratories and personality development programs. Consultancies have also generated some additional funds. The college has also registered for UGC 2(f) and 12(b) funds and applications for research projects have been uploaded on website.

## **6.5 Internal Quality Assurance System (IQAS)**

### **6.5.1 Internal Quality Assurance Cell (IQAC)**

**a. Has the institution established an Internal Quality Assurance Cell (IQAC)?. If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?**

Yes, an Internal Quality Assurance Cell (IQAC) was formed in Feb 2005 with the intention of setting benchmarks for quality. These are reviewed in IQAC meetings and upgraded. The committee consists of coordinator and representatives from all departments. Stakeholders from industry, alumni and parents are also a part of the IQAC from Jan 2015. Benchmarks for quality sustenance and improvement are assessed and upgraded in an effort to enhance quality and this review process has contributed immensely in

institutionalizing the quality assurance processes. Current members of the IQAC are –

Principal	-	Chairperson
Jt. Director	-	Member
HOD Mech	-	Member
HOD Comp	-	Member
HOD E&TC	-	Member
HOD IT	-	Member
HOD ASGE (NAAC Coordinator)	-	Member
Registrar	-	Member
Librarian	-	Member
TPO	-	Member
Hostel Wardens	-	Member
Dr Mahesh Goudar ( MIT AOE, Alandi)	-	Member
Dr Sanjay Patil (ARAI, Pune)	-	Member
Dr Arun Gaikwad (Principal, Zeal College of Engineering)	-	Member
Amit Saraswat, Sumit Singh (Alumni)	-	Members
Vijender Yadav, Ankush Tiwari (Employers)	-	Members
Col Pasricha ( Parent)	-	Member
General secretary (Boys')	-	Member
General secretary (Girls')	-	Member

**b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?**

In the last four years many of the decisions taken in the IQAC meetings were approved and implemented by management. Few examples being, decision to apply for UGC recognition under 2(f) and 12(B), apply for permanent affiliation to University, to acquire NKN connectivity, to implement honor code for students etc. Few decisions of the last meeting like college to provide office space and resources for startups, and recruiting companies to talk to the first year students to make them aware of companies expectations are under consideration.

**c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.**

Yes, as per the new directives received from NAAC with effect from Jan 2015 the IQAC was reconstituted to include external members from academics, industry experts, alumni and parents.

**d. How do students and alumni contribute to the effective functioning of the IQAC?**

Suggestion from students and alumni are taken in IQAC meetings and implemented wherever required.

**e. How does the IQAC communicate and engage staff from different constituents of the institution?**

All the administrative heads, departmental heads, registrar, TPO, librarian, hostel wardens/rectors are members of the IQAC thus ensuring direct communication and engagement of staff.

**6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.**

Yes, the institution has an integrated framework for Quality Assurance of its academic and administrative activities. ISO 9008 audit is implemented annually to oversee these quality assurances under an integrated framework constituted of the director and all Heads.

**6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.**

Staff at every level are involved in the Quality activities of the college. Departmental audits are carried out in a mutual fashion and non conformities are noted. Good practices of a department noted during the internal audits are implemented by other departments.

**6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?**

S. No.	Internal/External audit	Date & Year	Details of compliance
1	AWES Book Inspection	Sept/Oct of every year	Yearly compliance is given
2	ISO 9001:2008	14/01/2015 valid upto 23.02.2018	Certification
3	NBA	Sept 2013	Five years accredited for Computer branch. Three years accreditation for Mechanical, Electronics and telecommunications and information Technology branch.

Reports of these bodies are initially analyzed by the college heads under the Director and the Principal and thereafter discussed in LMC and GB meetings. Decisions are taken at appropriate levels and resources earmarked accordingly. Reviews are conducted to assess the impact on institutional performance.

**6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?**

Institute also is accredited by NBA and certified by ISO 9001:2008. Internal audits are carried out by AWES (Adm. inspection)

**6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

Regular IQAC meetings are held and bench marks are set or upgraded. The performance of departments as per the above benchmarks is assessed annually and Annual Quality Assurance Report (AQAR) is prepared.

**6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?**

The Annual Quality Assurance Report AQAR for every year is uploaded on AIT website. Accreditation status of college and departments is available on website for all stakeholders.

**Any other relevant information regarding Governance Leadership and Management which the college would like to include.**

This college is a self financed welfare project of the Indian Army with full autonomy to the academicians hired as per the University rules and regulations, along with the leadership[ and management drawn from the Indian Army, who have introduced time tested procedures of the Indian Army. Leadership believes in leading by example involving all members with due diligence in a transparent and democratic manner.

**CRITERIA VII: INNOVATIONS AND BEST PRACTICES****7.1 Environmental Consciousness****7.1.1 Does the institute conduct a Green Audit of its campus and facilities?**

No.

**7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?****\* Energy conservation**

- Automatic power factor controller (APFC) is installed in the power house which gives power factor of unity.
- Almost all street lights, toilets and corridors are provided with the LED fittings.
- Auto flush and auto cut off system is installed in the hostel toilets to save electricity and water.

**\*Use of renewable energy**

- Interactive solar power generating system of 225 KW is provided on the roof top of the academic building. With the installation of this system 40 to 45 % of the total electricity requirement is met. It also has additional advantages like: no escalation in power cost for 25 years, up to 20% rebate in property tax under Green Building Norms, uninterrupted energy use during day time round the year.
- Apart from this solar water heating system is provided in all boys and girls hostels for hot water requirement.

**\*Water harvesting**

- Water recycling or waste water treatment plant of 200 m<sup>3</sup> or 2,00,000 liters capacity has been constructed. The principle of the treatment is based on Phytoid technology. The Phytoid Technology treatment is a subsurface flow type in which wastewater is applied to cell/system filled with porous media such as crushed bricks, gravel and stones. It consists of three zones (i) Inlet zone composed of crushed bricks and different sizes of stones (ii) Treatment zone consist of same media as in inlet zone with plant species and (iii) Outlet zone. Daily 150 m<sup>3</sup> or 1,50,000 liters recycled water is available. This is being used for landscaping of the institute. Institute also proposes to further use this recycled water for flush systems. This would save 30% of fresh water.
- Rainwater harvesting is being done near Hostel Flank "H". This is being further developed in the current year.

**\*Check dam construction**

None.

**\*Efforts for carbon neutrality**

- By conserving and reusing energy the need for excessive use of fossil fuels can greatly reduce, thus reducing carbon emissions. Installing solar panels helps in reducing carbon emissions. The installation of 225 KW solar power systems has saved the amount of carbon dioxide released into the air. Thus the emission of carbon dioxide is well controlled with these efforts in the institute to achieve carbon neutrality.

**\*Plantation**

- Every year students along with the garden staff plant trees. The saplings have been obtained from Vanrai NGO or donated by Tata Motors. Subsequent care is taken by the gardeners. Due to this program over the years the campus has become lush and green. Also, a herbal garden consisting of plants with medicinal values is cultivated in the college campus.

**\*Hazardous waste management**

- No hazardous waste generated in the campus.

**\*e-waste management**

- E waste generated is first reused in the campus itself. Then discarded waste is disposed off by board of officers to authorized vendors.

## 7.2 Innovations

### 7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

Criteria wise innovations introduced in the last four years which have created a positive impact on functioning of the college are:-

#### Curricular aspects

- Curricular enrichment in the form of large number of value added courses.
- Mini projects from first year of study.

#### Teaching learning and evaluation

- Use of e-learning platform like MOODLE, Edvelop cloud e-learning platform is planned to be introduced soon.
- Online admission form introduced.
- Evaluation using mock online tests and mock practical exams.

#### Research, consultancy and extension

- Students are sponsored to file patents and present papers.
- Innovation and incubation cell established from 05 Sept 2014 to enable joint interaction of students with start-up entrepreneurs in Innovation center.
- About 60% industry sponsored final year projects.

#### Infrastructure and learning resources

- "Automatic flushing system for toilets and automatic electricity cut-off switches to save electricity" developed by students and implemented in hostels and academic block.
- Solar energy project (roof top interactive grid) - generating 225 KW power has been installed by institute.
- Solar panel cleaning system developed by students is being used.
- Phytoid based Sewage Treatment Plant (patented by NEERI) has been implemented in the campus.
- All street lights and common area lights have been replaced with LED.

#### Student support and progression

- AGIF scholarships benefitting 25% of our students were introduced
- Book bank scheme was introduced.
- Student achievers presenting their projects / achievements in Extended Student Council Meetings (ESCM) thus motivating other students.

#### Governance, leadership and management

- Weekly meetings of Director with all Academic and Administrative heads.
- Semester wise brainstorming session with staff to review various academic and administrative practices.

### **7.3 Best Practices**

**7.3.1 Elaborate on any two best practices in the given format which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.**

#### **7.3.1.1 Participative Management with ESCM, Weekly Divisional Heads meeting, Monthly Flank in charge meeting and Brainstorming Sessions.**

##### **7.3.1.2 GOAL**

The aim of this practice is to involve the main stakeholders, i.e., the students and staff in management of the college. The management consisting of Director (Overall Head), Principal (Academic head) and Joint Director (Administrative head) seek involvement of the main stakeholders in day to day functioning of the college. This is done by monthly Extended Student Council Meetings (ESCM), Friday meetings of all Divisional Heads, monthly meetings of Director with all hostel Flank in charges and semester wise brainstorming sessions.

##### **7.3.1.3 THE CONTEXT**

As it is difficult for the management to conduct a meeting of all 1200 students of the college at regular intervals, the practice of the extended student council meet (ESCM) was introduced at AIT. The ESCM is scheduled on the second Thursday of every month. Similarly, involvement of all staff members in management of the institute is kept up through the weekly Friday divisional heads meeting. Hostel management is monitored through the monthly flank in charges meetings with Director and Joint Director.

##### **7.3.1.4 THE PRACTICE**

Student council consists of Gen. Secy. (Boys'), Gen Secy. (Girls') and all student club in-charges. For the ESCM, class representatives of each class in addition to two boys and two girls from each class also attend the meeting. The meeting is conducted by the Director, with Principal, Joint Director and all Divisional Heads being present to give additional points as required. Two faculty members of each department are also present. The proceedings of the meeting are then conveyed by the class representatives and the nominated students to the rest of the class. The ESCM begins with Director's presentation, with felicitation of student achievers for that particular month. Student achievers who have won accolades for various technical activities are also asked to explain their work to other students so as to motivate the other students and be role models. This helps in dissemination of information to the student community as a whole. Another part of the ESCM is the grievance redressal of common student problems related to academics or hostel administration by respective heads. In every successive meeting the progress on points for action from previous meeting are presented by the Director.

In the weekly Friday meetings, planning and monitoring of all academic and administration activities is done by Director, Principal and Joint Director with participation of all Divisional Heads. In the semester wise brain storming session, academic and administrative policy issues are debated and an acceptable solution is aimed for. These issues are then conveyed to the Local

Management Committee and organizationally beneficent decisions are arrived at.

#### **7.3.1.5 EVIDENCE OF SUCCESS**

A direct dialog with the main stakeholders, namely students and staff is realized through these meetings. Many suggestions from students who are the main stakeholders of the institute are received in the ESCMs. Implementation of these have led to quality improvement and help meet stakeholder expectations. Felicitations of students in ESCMs has been motivating students to perform better and contributes to better functioning of the college. Weekly HODs meeting is engendering inter-disciplinary coordination in an excellent manner, besides providing an excellent platform for discussing functional problem areas experienced at grassroots level. Academic result analysis conducted in these meetings have led to marked improvement of results over last four years. These meetings also enable formulation of budgets with inputs from all members of the college, as well as enables close monitoring on the ongoing works and procurement processes resulting in more than 90% budget utilization in spite of complicated semi-governmental financial problems and controls. Last brainstorming session with staff has resulted in modification of the college incentive policy for consultations.

#### **7.3.1.6 PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED**

Two hours from the scheduled classes have to be set aside for attending the ESCM by the extended student council members in each month.

#### **Contact Details**

Name of the Principal: Dr B P Patil

Name of the Institution: Army Institute of Technology

City: Pune

Pin code : 411015

Accreditation Status : B grade, 2.81 out of 4.00

Work Phone : 020-27157741;

Fax: 020-27157534

Website: [www.aitpune.edu.in](http://www.aitpune.edu.in)

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Mobile: 9689907475

## **BEST PRACTICES**

### **7.3.2.1 Curriculum Enrichment Measures**

#### **7.3.2.2 GOAL**

This practice was implemented in order to enrich the existing curriculum and give hands on experience to our students as per industry expectations.

#### **7.3.2.2 THE CONTEXT**

Curriculum revision takes place every four to five years by affiliating university. However, in order to keep the students in pace with the current and latest developments in the industry, additional curriculum enrichment measures have been introduced in the college.

#### **7.3.2.2 THE PRACTICE**

Curriculum enrichment is done by following measures :-

- Value added evening courses – From the first year onwards Computer programming and Soft Skills classes are conducted for students identified to be weak in these skills. In the second and third year JAVA, C, C++, .NET, MCA, systems are some of the value added courses conducted by the institute. Besides this 3 day workshops are conducted on VLSI, embedded systems, MATLAB etc.
- Organization of large number expert lectures on latest developments in the respective branch by every department.
- Mini projects – In the first year, study type mini projects are done by the students. Students submit a short report and give a short presentation on scope for future development in the area. From the second year onwards, branch specific mini projects are done by all second and third year students.
- Student internships – In the last year about 30% of our students did internships. College helps in procuring internships offers from Army, DRDO and other government organizations for our students.
- Sponsored projects – Around 60 - 70% of final year projects are sponsored
- Technical club activities – Students get a hands on experience through various club activities like Supra-Baja, Robotics, Open Source software, Innovation and Incubation cell etc.
- Project Competitions – AMALGAM-Final year project competition with cash prizes is held every year.
- Mock Group Discussion/Personal interview (GD/PI) sessions with professional expert for the third year students.
- Co-curricular based credit system (CCCBAS) - This has been introduced to increase participation of all students in technical activities, value added certification courses, internships, MOOCs like COURSERA and UDACITY.

#### **7.3.2.2 EVIDENCE OF SUCCESS**

Excellent results of our students in the examinations, student achievements in co-curricular activities and placement percentages that have reached 92% during the last four years are proof of the success of this practice.

### **7.3.2.2 PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED**

Some of the students are reluctant to pay additional fees for the value added courses hence, Institute provides part subsidy for the value added courses to ensure full participation.

Identifying suitable resource persons for conduct of the various training activities and their monitoring requires continuous perseverance by the management and heads of departments.

### **Contact Details**

Name of the Principal: Dr B P Patil

Name of the Institution: Army Institute of Technology

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E-mail : [principal@aitpune.edu.in](mailto:principal@aitpune.edu.in)

Mobile: 9689907475

**EVALUATIVE REPORT OF COMPUTER DEPARTMENT**

1. **Name of the department:** Computer Engineering
2. **Year of Establishment:** 1994
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):** UG
4. **Names of Interdisciplinary courses and the department/units involved:** Nil
5. **Annual/ semester/choice based credit system (programme wise):**  
Semester
6. **Participation of the department in the courses offered by other departments:** Yes

<b>S.No</b>	<b>Course</b>	<b>Department</b>
1	Fundamentals of Programming Languages-1	Applied Science and General Engineering
2	Fundamentals of Programming Languages-1I	Applied Science and General Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:** No
8. **Details of courses/programmes discontinued (if any) with reasons:** No
9. **Number of Teaching posts**

	<b>Sanctioned</b>	<b>Filled</b>
Professors	01	00
Associate Professors	03	02
Asst. Professors	13	13

**10. Faculty profile with name, qualification, designation, specialization,  
(D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name of Faculty	Qualification	Designation	Specialization	No. of Years of Exp.	No. of M.Phil./ Ph.D. Student guided for the last 4 years
Mr. S.R. Dhore	ME	Asso.Professor	Computer Engineering	20	NIL
Mr. N.K. Bansode	ME	Asso.Professor	Computer Engineering	22	NIL
Mr. M.B. Lonare	ME	Asst. Professor	Computer Engineering	14	NIL
Mr. P R. Sonawane	ME	Asst. Professor	Computer Engineering	21	NIL
Ms. Asha P. Sathe	ME	Asst. Professor	Computer Engineering	17	NIL
Ms. V. Ganganwar	M. Tech	Asst. Professor	Computer Engineering	14	NIL
Ms. Sushama Shirke	M. Tech	Asst. Professor	Computer Engineering	10	NIL
Ms. Rushali S. Patil	ME	Asst. Professor	Computer Engineering	10	NIL
Ms. Yogita Hambir	ME	Asst. Professor	Computer Engineering	11	NIL
Ms. S.A. Lokhande	ME	Asst. Professor	Computer Engineering	11	NIL
Mr. Anup Kadam	ME	Asst. Professor	Computer Engineering	12	NIL
Mr. Praveen Hore	ME	Asst. Professor	Computer Engineering	05	NIL
Ms. Nikita Gupta	M. Tech	Asst. Professor	Computer Engineering	04	NIL
Mr. Sagar Rane	M. Tech	Asst. Professor	Computer Engineering	01	NIL
Mr. Manik Hendre	M. Tech	Asst. Professor	Computer Engineering	01	NIL

**11. List of senior visiting faculty:**

Sr. No.	Name of Visiting Faculty
1.	Dr. Deepak Shikarpur
2.	Lt. Gen D K Ajwani(Retd.)

**12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty 15%****13. Student -Teacher Ratio (program wise)**

Year	Total number of students	Total number of faculty	Student-Teacher ratio
2011-12	180	14	1:13
2012-13	180	14	1:13
2013-14	180	14	1:13
2014-15	180	15	1:12

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

	Sanctioned	Filled
Academic Support Staff ( Technical)	6	6
Administrative	3	3

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.**

Qualification	Number
Ph D	NIL
PG	15
UG	NIL

**16. Number of faculty with ongoing projects from funding agencies and grants received**

1. National : NIL
2. International : NIL

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received (last four years data)**

S. No.	Name of Faculty	Title of Research Project	Funding Agency	Amt (Rs)
1	Prof. Dhore S.R.	Web service composition using mobile agents	BCUD (UGC)	1.35 Lac

**18. Research Centre /facility recognized by the University: NIL**

## 19. Publications:

## a) Publication per faculty :

S No	Name of faculty	Number of Publications in last four years
1	Mr. S.R. Dhore	06
2	Dr. Jaydevan R.	05
3	Mr. N.K. Bansode	02
4	Mr. M.B. Lonare	01
5	Ms. V. Ganganwar	03
6	Ms. Sushama Shirke	04
7	Ms. Rushali S. Patil	02
8	Ms. Yogita Hambir	04
9	Ms. S.A. Lokhande	05
10	Mr. Anup Kadam	02
11	Ms. Nikita Gupta	06

## b) Number of papers published in peer reviewed journals (national / international) by faculty and students:

S No	Name of faculty	Number of publications in peer reviewed journals (National)	Number of publications in peer reviewed journals (International)	Number of publications in international databases*	Av. Citation index	Av. impact factor	SNIP	SJR
1	Mr. S.R. Dhore	-	02	-	2.5	4.58	-	-
2	Dr. Jaydevan R.	-	04	-	18.9	1.69	-	0.07
2	Mr. N.K. Bansode	-	02	-	04	-	-	-
3	Ms. V. Ganganwar	-	03	-	-	2.32	-	-
4	Ms. Sushama Shirke	-	04	-	-	2.08	-	-
5	Ms. Rushali S. Patil	02	-	-	-	-	-	-

6	Ms. Yogita Hambir	01	03	-	-	2.32	-	-
7	Ms. S.A. Lokhande	-	04	-	-	-	-	-
8	Mr. Anup Kadam	-	01	-	-	1.10	-	-
9	Ms. Nikita Gupta	02	04	-	-	-	-	-

\*Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

c) Monographs – NIL

d) Chapter in Books with ISBN/ISSN numbers with details of publishers– NIL

e) Books Edited with ISBN/ISSN numbers with details of publishers– NIL

f) Books with ISBN/ISSN numbers with details of publishers– NIL

g) h index

S No	Name of faculty	h index
1	Dr. Jaydevan R.	7

20. Areas of consultancy and income generated:

S No.	Name of Consultancy	Agency	Approx. Amount (Rs.)
1.	Wi-Fi	AWES, AIT	20 lac
2.	Maintenance Cell	AWES, AIT	2 lac
3.	Value Addition courses	AWES, AIT	1 lac
4.	Pro-metric center	National board of Examination (NBE)	4.5 lac

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

a) National Committees :

S No.	Name of faculty	Nature of Work	Agency
1.	Mr. Dhore S.R.	Designing and Framing syllabus	Savitribai Phule Pune University
2.	Mr. Dhore S.R.	Resource Person for faculty development program for SPPU	Zeal Institute of Technology

		for DAA subject & PG course(ME)	
3.	Mr. Dhore S.R.	Reviewer and Session in charge for c-PGCON	MET's Bhujbal Knowledge City
4.	Mr Lonare M.B.	Designing and Framing syllabus	Savitribai Phule Pune University
5.	Ms. Shirke S.A.	Designing and Framing syllabus	Savitribai Phule Pune University
6.	Dr. Jaydevan	National Conference on Signal and Data Processing(NCSDP) Coordinator	AIT Pune
7.	Dr. Jaydevan	Reviewer and Session in charge for c-PGCON	MET's Bhujbal Knowledge City

b) **International Committees :**

S No.	Name of faculty	Nature of Work	Agency
1.	Mr. Dhore S.R.	1 <sup>st</sup> International conference on Computing Communication Controlling Automation(ICCUBEEA) Technical Program Advisory committee	PCCOE Pune

c) **Editorial Boards :**

S No.	Name of faculty	Nature of Work	Agency
1.	Mr. Dhore S.R.	National Conference on Signal and Data Processing(NCSDP) Coordinator Advisory committee	AIT Pune
2.	Dr. Jaydevan	National Conference on Signal and Data Processing(NCSDP) Coordinator Advisory committee	AIT Pune

**22. Student Projects :**

<b>Year</b>	<b>Percentage of students who have done in-house projects including inter departmental/programme</b>	<b>Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies</b>
2011-12	35%	65%
2012-13	40%	60%
2013-14	25%	75%
2014-15	20%	80%

**23. Awards / Recognitions received by faculty and students:**

<b>S No.</b>	<b>Name of faculty/student</b>	<b>Award/recognition</b>	<b>Award /recognition received from</b>
1	Ms. Asha D. Kale	Best Teacher Award	AWES, AIT, Pune
2	Mr. Anup Kadam	Best Teacher Award	AWES, AIT, Pune
3	Ms. V.Y. Ganganwar	Best Result Award for System Programming Subject	AWES, AIT, Pune
4	Mr Rahul Kadam	Best Technical Support	AWES, AIT, Pune
5	Mr. N. K. Bansode	Best Teacher Award	AWES, AIT, Pune
6.	Sourabh Teotia Shruti Singh Sunny Dhube	Young researcher Award	International Conference On Computer Science And Information Technology, Hyderabad.
7.	Chirag Nagpal	2nd Prize in Model Making Context	Cummins College, Pune

**24. List of eminent academicians and scientists / visitors to the department**

<b>S No.</b>	<b>Name of visitor</b>	<b>Date</b>
1	Dr. Deepak Shikarpur	9 August 2012
2	Dr. Parag Kulkarni	5 April 2011

**25.Seminars/ Conferences/Workshops organized & the source of funding :**

a). **National :**

1. National Conference on Signal and Data processing (NCSDP- 2015) AWES, AIT, Pune

b). **International :** NIL

## 26. Student profile programme/course wise:

Name of the Course/programme : Computer Engineering

Year	Applications received For All Branches	Selected	Enrolled		Pass percentage %
			*M	*F	
2011-12	5829	60	50	10	85.00
2012-13	6175	60	52	08	83.00
2013-14	5913	60	54	06	89.83
2014-15	6122	60	51	09	86.66

\*M = Male \*F = Female

## 27. Diversity of Students :

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
Computer Engineering	5%	95%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? :

Year	Number of students GATE	Defense Services (UES)
2011-12	11	01
2012-13	01	01
2013-14	01	00
2014-15	05	00

**29. Student Progression:**

Student progression	Against % enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	5	5	5	5
PG to Ph.D.	1.8	NIL	NIL	NIL
Employed Campus selection	91	94	81	98
Other than campus recruitment	-	-	-	-

**30. Details of Infrastructural facilities :**

The department is equipped with state of art, ultra-modern and sophisticated programming labs and classrooms with fully updated faculty.

The department has a well-established LAN of **130** Machines. The ambience and the ergonomic design of the labs enhance students' appetite for acquiring programming skills.

The internet facility with 75Mbps leased line, 100Mbps NKN conferencing, 2 Mbps from Aircel and Wi-Fi facility is available to the students.

**a) Departmental Library:**

	2011-2012	2012-2013	2013-2014	2014-2015
Books Available	220	225	230	240
T.E. Seminar Reports	60	60	61	60
B.E. Preliminary Report	17	17	16	16
Project Report Titles	17	17	16	16

**b) Internet facilities for Staff & Students :**

Department of Computer Engineering is providing internet and intranet facility to the entire college from a centrally located Server Room and Data

Centre. It is equipped with 24 X 7 running higher end redundant networking servers and devices/equipment's to overcome any failure. The main features and components of server room and data center are as given below :-

- a) OFC dedicated leased line of 75 Mbps(1:1) from Tata Communications Pvt Ltd and 100 mbps NKN and 2 mbps from Aircel.
  - b) CISCO Router 1601 Series for WAN routing.
  - c) 3COM and CISCO 3560 Layer 3 Network Switches for centrally management of entire network from one central location.
  - d) An advanced IBM Xeon Quad Core Dual Processors Server with 8 GB RAM for providing proxy and gateway services to all internet users. RAID 5 is configured for crash and disaster recovery.
  - e) IBM Servers have been employed for running various internet and intranet services for internal users in the organization, such as, e-Mail Server, Web Server, DNS Servers, Terminal Server (Thin Clients Server for Cyber Cafe) and centrally manage Anti-Virus Server.
  - f) Library Web Server(OPAC), Moodle Server for E-Learning and SIS Server for Student Informations have been installed.
  - g) All Servers and Network devices have been consolidated in 42 inch rack mountable Server and Network Racks for better management.
  - h) SonicWall Firewall NSA 4500 and Kaspersky Business Security Anti Virus Central Console have been installed to overcome various internet and intranet threats.
  - i) All boys and girls hostels have been provided with Wi-Fi Connectivity through higher end CISCO Wi-Fi Access Points and CISCO Wireless Controller for central management of Wi-Fi activities so that students can surf internet through their laptops at these locations.
  - j) Library Reading Room, Raman Theatre and Boys Hostel Reading Room have also been provided with Wi-Fi Connectivity.
  - k) Online UPS Systems with a backup of 8 hours have been installed to cater for any power failure.
  - l) Air-Conditioner is installed to control the temperature and humidity in the Server Room.
  - m) Raised Flooring and False Ceiling have been constructed in the server room for better management of various Networking, Optic Fibres and Power cables.
- c) Class rooms with ICT facility :**
1. All class rooms are having Wi-Fi & on the LAN.
  2. NPTEL video lectures are available
  3. E- Learning MOODLE facility for teaching learning.
  4. NKN with video conferencing is in process.
  5. Lecture hall equipped with video projection systems.

**d) Laboratories:**

The department has following laboratories:

**1. Computer Software Lab1 (CSL 1) :**

<b>General information of Lab</b>	Equipped with 60 PCs used for programming in C, C++, and Visual Studio and cloud computing setup. All systems are dual boot.
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**2. Computer Software Lab1 (CSL 2) :**

<b>General information of Lab</b>	Equipped with 60 PCs used for programming in C, C++, and Visual Studio and cloud computing setup. All systems are dual boot.
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**3. Computer Software Lab1 (CSL 3) :**

<b>General information of Lab</b>	Equipped with 35 PCs with 2 server used for .NET, Networking Labs, Digital Signal Processing Lab. All systems are dual boot.
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**4. Hardware Lab (HL):**

<b>General information of Lab</b>	Equipped with 30 PC's, have hardware instruments to conduct hardware practicals. Texas Lab consists of kits of BEGALBONE BLACK to perform mini- projects on embedded system etc.
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**5. Open Source Lab:**

<b>General information of Lab</b>	Learning use of Open Source Software as cost effective solution along with existing commercial software. To establish OSS learning e-book library. Research Activities in the areas of OSS Technologies.
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**31. Number of students receiving financial assistance from college, university, government or other agencies**

<b>Year</b>	<b>Total Number of students receiving financial assistance</b>
2011-12	16
2012-13	55
2013-14	50

2014-15	57
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**32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts :**

S No.	Nature of program	Name of external expert	Date
1	“Soft Skills”	Prof. Mukhopadhyay, C.O.E.P., Pune	26th March 2011
2	“Machine Learning”	Dr. Parag Kulkarni, Pune	5th April 2011
3	“Software Engineering”	Dr. Shashikant Kelkar, IIT Mumbai	5th April 2011
4	“Problem Solving”	Mr. Gaurav Joshi, Persistent Systems Pvt. Ltd., Pune	29th July 2011
5	“How Face Book Works?”	Mr. Vijender Yadav , Propalms Network Solutions, Pune	29th July 2011
6	“Research Methodologies”	Dr. Uday Khedkar, IIT Mumbai	5th August 2011
7	“Windows API”	Asif Baharinwala, PTC Software, Pune	27 August 2011
8	“Career opportunities in IT “	Rajesh Vartak, Seed Infotech, Pune	17 Jan 2012
9	Introduction to Linux and Open Source Technologies	Red hat Team	18 July 2012 11:30am to 1:30pm
10	Cloud Computing Introduction to Cloud Computing (CC), CC Architecture, Current state of CC, Market Trends, Fast Facts, CC Characteristics, Benefits, Concern, Case Study	Mr. Kingshuk Biswas Accenture Ltd.	July 27 (Friday) , 2:30pm to 4:30pm
11	Network Management	Mr Sanjeev Sharma NetTech Pvt. Ltd, Kolkata	03 Aug 2012 (Friday)
12	Technology Consulting	Rakesh Barik Deloitte	07 Aug 2012
13	Network Security	Cybercure Pvt Ltd	21, 22, 23 Aug, 2012
14	Open Source Cloud	Mr. S. Wadekar	Sept 22,

	Computing	Persistent Systems Pvt Ltd	2012
15	SAP	Mr Bhaskar LITHAN GENOVATE	Sept 26, 2012
16	Microsoft Ed- vantage	Microsoft	Dec. 29, 2012
17	Microsoft India AppFest 2013	Microsoft	Feb. 26, 2013
18	Cloud Computing	Microsoft	Feb. 25, 2013
19	Android Application Development	GeeksLAB	March 11, 12, 2013
20	Seed InfoTech	Data Mining	March 18, 2013
21	Dr. Beatriz De La Iglesia, (School of Computing Sciences, University of East Anglia, Norwich, UK)	Data Mining Algorithm development and applications	March 19, 2013
22	Manas Khandeshi, Semantic , Pune	Operating system Administration	July 12, 2013
23	Linux Course	Linux System Administration	Aug 2,3,2013
24	Anil Kumar Dahiya	Networking Education with Knowledge and Technology	12 July 2013
25	Sagar Srivastav Red Hat Corp. Mumbai	Work shop on Red hat System Admin and Virtualization	July 15, 2013 (4 hrs.)
26	Cybercure Pvt Ltd	Network Security	18,19,20 July 2013
27	Anil Dahiya and Nek Tech Team, Devendra Tripathi, IIT Gandhinagar	Address to FE Under orientation Programme	July 20, 2013
28	SAP:ABAP Team	SAP: Advanced Business Application Programming (ABAP)	Saturday Aug. 10, 2013 (1130-1330 HRS)
29	Prof Shraddha Oza, MIT Pune	Advanced Microprocessor Architecture	Aug 31, 2013
30	Nektech and Calsoft team	Java workshop	Aug 31 and Sept 01, 2013
31	Arati Kulkarni,	Advanced Databases and	Sept 07,

	Seed Infotech team	PL/SQL	2013
32	Tushar Samnerkar, Infosys	Emerging trend in computing	Sept. 28, 2013
33	Rahul Dhond	Big Data and Hadoop	Sept. 20, 2013 (Wed)
34	Anil Dahiya and Nek Tech Team,	Linux Programming	Sept. 2013 Week End Course
35	Dr Sarang Joshi	Qt Workshop Chief Guest speech	Feb. 15, 2014
36	Army Commander	Address to AIT	Feb. 24, 2014
37	Rahul Computers	Java Classes	Feb/March, 2014

### 33. Teaching methods adopted to improve student learning

Method	Use
MOODLE	E-learning system for students maintained by faculty of respective subject.
WTP	Weekly Teaching Program which is displayed on noticeboard and on AIT website consists of print, to cover expected syllabus in a week.
NKN	100 MBPS National Knowledge Network available in institute for higher learning
NPTEL	NPTEL videos are available for reference use.
Digital Library	E Journals are available like IEEE, ACM, Science Direct, JGATE in central library.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

There is a separate club for NSS (National Service Scheme) is in place under the various social responsibility and activities are carried out such as :

1. Tree Plantation
2. Blood Donation Camp
3. YOGA
4. Campus Cleaning etc.
5. Orphanage Center Visits

**35. SWOC analysis of the department and Future plans:****Strengths :**

1. Quality Intake
2. Young Motivated Faculty
3. Good Placement
4. Good University Results
5. Infrastructure Wi-Fi, NKN
6. 100% Residential

**Weakness :**

1. There is a need of vertical growth in the department e.g. PG program to create the research ambience.
2. Due to UG course there is no concrete center of excellence in particular domain subjects in computer engineering.

**Opportunities:**

1. Pune being an IT hub of tier one IT companies for better Industry Institute Interaction which gives more exposure to the students in the form of placements and Internships.
2. Tie up with research bodies and centers like IISER and CDAC in Pune for promoting research activities.
3. Institute with NKN facility can take advantage for higher learning like interaction with IIT and NIT via video classrooms.

**Challenges:**

1. To attract the quality doctoral faculty members.
2. To attract consultancy.

**Future Plan**

1. To increase intake from 60 to 120 and to start Post Graduate programme.
2. To set up center of excellence with industries.

**EVALUATIVE REPORT OF ELECTRONICS AND  
TELECOMMUNICATION DEPARTMENT**

**1. Name of the department** : Electronics & Telecommunication Engineering

**2. Year of Establishment** : 1994

**3. Names of Programmes / Courses offered (UG, PG, M.Phil, Ph.D.,  
Integrated Masters; Integrated Ph.D., etc.)** : UG

**4. Names of Interdisciplinary courses and the departments/units  
involved:** NIL

**5. Annual/ semester/choice based credit system (programme wise):**  
Semester System

**6. Participation of the department in the courses offered by other  
departments:**

S.No	Course	Department
1	Basic Electronics Engineering	Applied Science and General Engineering

**7. Courses in collaboration with other universities, industries, foreign  
institutions, etc.** : Nil

**8. Details of courses/programmes discontinued (if any) with reasons** : Nil

**9. Number of Teaching posts** :

Post	Sanctioned	Filled
Professors	2	1
Associate Professors	4	5
Asst. Professors	18	17

**10. Faculty profile with name, qualification, designation, specialization,  
(D.Sc./D.Litt. /Ph.D. / M. Phil. Etc.,)**

Sr. No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. B P Patil	B.E.(Elex) M.E. (C&I) Ph.D	Professor	Wireless Communication	25.5	07 (Ph D)
2	Mrs.Surekha KS	B.E. (E&C), M.E.(E&TC) Ph.D (Pursuing)	Assoc. Prof and Head	Bio Medical Signal Processing	27	NIL
3	Mr. G R Patil	B.Tech. (Electronics) M.E (Computers) Ph.D (Pursuing)	Assoc. Prof	Wireless Communication	25	NIL
4	Mr.D G Auradkar	B.E.(E&C) M.E.(Electronics) Ph.D. (Pursuing)	Assoc. Prof	Digital Electronics	20	NIL
5	Dr. P B Karandikar	BE Electrical) ME(Control systems) PhD- Electrical Engineering	Assoc. Prof	Electrical Engineering	21	04(Ph D) 02 (ME)
6	Dr. Anita Jain	BE E&TC Mtech(E& TC) PhD	Assoc. Prof	VLSI design	15	NIL
7	Ms.Shraddha Oza	BE(Industrial Electronics) ME(Electronics) Ph.D. (Pursuing)	Asst Professor	Parallel Processing	25	NIL
8	Mr.J B Jawale	B.E. (Electronics) M.Tech(Digital Systems) Ph.D. (Pursuing)	Asst Professor	Image Processing	17	NIL
9	Ms Sushma Wadar	B.E. (Electronics) M.E(Communication) Ph.D. (Pursuing)	Asst Professor	Embedded Systems	16	NIL
10	Mr.Vijay Kumar Karra	B.E.(E&TC) M.E.(Electronics)	Asst Professor	Digital Systems	14.6	NIL
11	Mr.Avinash Patil	B.E.(Electronics) M.E.(VLSI) Ph.D (Pursuing)	Asst Professor	VLSI	12	NIL

12	Mrs Renuka Bhandari	B.E.(Electronics) M.E.(Digital Comm) Ph.D (Pursuing)	Asst Professor	Digital Systems	8.6	NIL
13	Mr. Girish. Kapse	B.E. (Electronics) M.Tech. (Electronics)	Asst Professor	Image & Video processing	8.1	NIL
14	Mrs. Rajashree Suryawanshi	B.E. (Elex) M.E. (Electronics) PhD (Pursuing)	Asst Professor	Telecommunication	16	NIL
15	Mrs.Shilpa Pawar	B.E. (E&TC) M.E. (E&TC)	Asst Professor	Embedded Systems	15	NIL
16	Ms.Snehal Marathe	B.E. (Electronics) M.E. (Electronics)	Asst Professor	VLSI	12.6	NIL
17	Ms Dhanshree Patil	BE E&TC ME(Digital Electronics)	Asst Professor	Digital Electronics	4	NIL
18	Ms Pragati Rana	BE E&TC MTech EC Ph.D. (Pursuing)	Asst Professor	Signal Processing	1.7	NIL
19	Ms Meenal Bansal	BTech ECE MTech VLSI	Asst Professor	VLSI	6.5	NIL
20	Ms.Manisha Nilkanth	B.E Electronics M.E. Electronics	Asst Professor	Digital Systems	6.3	NIL
21	Mr.Mahesh Patil	BE E&TC ME Electronics	Asst Professor	Digital Systems	4.0	NIL
22	Mrs.Harjeet Kaur	BE E & C ME E & C Ph.D. (Pursuing)	Asst Professor	Signal Processing	14.5	NIL
23	Mrs.Soumya Murthy	BE E & C MTech(E &TC)	Asst Professor.	VLSI & Embedded	3.8	NIL

### 11. List of senior visiting faculty:

S. No.	Name	Subject
1	Lt. Gen. Deepak Ajwani(Retd)	Soft Skills

### 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 13%

### 13. Student -Teacher Ratio (programme wise)

Year	Total number of students	Total number of faculty	Student-Teacher ratio
2011-12	240	17	14.11:1
2012-13	300	20	15:1

2013-14	360	23	15.65:1
2014-15	360	24	15:1

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

	Sanctioned	Filled
Academic Support Staff ( Technical)	10	10
Administrative	01	01

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.**

Qualification	Number
Ph D	3
PG	20
UG	0

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:**

Academic year 2014-15 : Ongoing Projects

S.No.	Name of Faculty	Title of Research Project	Funding Agency	Amount (Rs)
1	Mr. G R Patil/ Mrs. Renuka Bhandari	Study and Implementation of MIMO based wireless communication system	Board of College & University Development (BCUD), University of Pune.	1,40,000/ -
2	Dr. B.P.Patil/ Mrs. Rajashri Suryawanshi	Performance evaluation of large MIMO	Board of College & University Development (BCUD), University of Pune.	1,70,000/ -
3	Dr. B. P .Patil/ Ms. Dhanashree Patil/ Ms. Pragati Rana	Performance evaluation of indoor navigation system	Board of College & University Development (BCUD), University of Pune.	1,40,000/ -

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received (last four years data)**

S. No.	Name of faculty	Title of Research Project	Funding Agency	Amount (Rs)
1.	Mrs K.S. Surekha	To Develop a new efficient compression algorithm for Electrocardiogram signals.	Board of College & University Development (BCUD), University of Pune.	1,00,000 /-
2.	Mrs K.S. Surekha along with three final year students	Low cost 12 lead ECG signal acquisition display and storage with telemetric comp ability.	Institution of Engineers	50,000/-
3.	Mrs.Sushma Wadar, Mr.Avinash Patil	Designing of a CMOS based analog multiplier	Board of College & University Development (BCUD), University of Pune.	2,00,000 /-
4.	Mrs Sushma Wadar	RISC processor implementation	Board of College & University Development (BCUD), University of Pune.	50,000/-

18. Research Centre /facility recognized by the University : NIL

19. Publications: (last four years data)

**a) Publication per faculty**

Sr No	Name of faculty	Number of publications	
		National	International
1	Dr. B. P. Patil	2	21
2	Dr. R. K. Prasad	-	5
3	Mrs. Surekha K S	6	15
4	Mr G R Patil	2	10
5	Dr. (Mrs.) Sangeeta Jadhav	-	1
6	Mr. D G Auradkar	1	-
7	Ms. Shraddha Oza	2	1
8	Mr. J B Jawale	2	2
9	Ms.Sushma Wadar	3	9
10	Mr. Avinash Patil	2	7
11	Mr. Vijay Kumar Karra	-	2
12	Mrs Renuka Bhandari	1	5
13	Ms. Kishori Naik	1	-
14	Ms. Manisha Nilkanth	-	1
15	Mrs. Rajashree P. Suryawanshi	1	-
16	Dr. Anita Jain	2	-

17	Ms. Snehal Marathe	1	-
18	Ms Dhanashri Patil	2	3
19	Ms Pragati Rana	2	2

**b) Number of papers published in peer reviewed journals (national /international) by faculty and students**

S No	Name of faculty	Number of publications in peer reviewed journals (National)	Number of publications in peer reviewed journals (International)	Number of publications in international databases*	Av. Citation index	Av. impact factor	SNIP	SJR
1	Dr B P Patil	01	06		0.58	-	-	-
		01	08	01		0.186	0.186	0.114
			02	01		0.107	0.88	0.107
			03	02		0.41	0.88	0.107
				<b>AV</b>	<b>0.58</b>	<b>0.234</b>	<b>0.648</b>	<b>0.109</b>
2	Mrs Surekha K S		05**	09				
3	Mr G R Patil		01	01				
			01	01	1.09	1.653	0.957	0.302
			01	01	0.304	0.33	0.341	0.21
			01	01	0.537	0.537	0.61	0.286
		<b>AV</b>			<b>0.644</b>	<b>0.84</b>	<b>0.636</b>	<b>0.266</b>

\*\* International database

**c) Monographs : NIL**

**d) Chapter in Books with ISBN/ISSN numbers with details of publishers :**

Sr No	Name of Book	Name of author	ISBN/ISSN number	Publisher and year
1.	Intelligent System in Science and information - 2014	Dr. B P Patil Mrs. Surekha K S	ISBN 978-3-319-14654-6	Springer 2014

**f) Books with ISBN/ISSN numbers with details of publishers:**

Sr No	Name of Book	Name of Author	ISBN/ISSN number	Publisher and year
1.	Electromagnetics	Mr. Vijay Karra	ISBN:978-93-81962-75-6	Nirali Prakashan Pune, 2011
2	Signal Coding & Estimation Theory	Mr. G R Patil	ISBN:978-93-81962-64-0	Nirali Prakashan, 2012
3	Data Structures & Algorithms		ISBN:978-93-83073-93-1	Nirali Publication, July 2013
4	Computer Networks-I		ISBN:978-93-83525-25-6	Nirali Publication, Sep 2013
5	Data Structures		ISBN:978-93-83525-50-8	Nirali Publication, Sep 2013
6	Data Communication		ISBN:978-93-81962-37-4	Nirali Publication, Jan 2014
7	Foundation of Computer Network		ISBN:978-93-83750-99-3	Nirali Publication, Jan 2014
8	Analog Communication		ISBN:978-93-83750-97-9	Nirali Publication, Jan 2014
9	Digital Communication System		ISBN:978-93-83750-73-3	Nirali Publication, Jan 2014
10	Computer Organization		Mr. J B Jawale	ISSN:938397120-7
11	Digital Communication	Mr. G R Patil	ISBN:978-93-5164-135-3	Nirali Publication, June-2014
12	Information Theory & Coding Techniques		ISBN:978-93-5164-361-6	Nirali Publication, Nov 14

**g) h-index**

S No	Name of faculty	h index
1	Dr. B P Patil	5
2	Mr. G R Patil	2

**20. Areas of consultancy and income generated :**

- NVIDIA CUDA Teaching Center sponsored by M/s. NVIDIA, Pune

- (GPU cards and USD 2,500)
- “Energy saving in hostels” project taken by E&TC students funded by AIT (Rs. 2,00,000/-)
  - Solar Panel cleaning system sponsorship (Rs. 75,000) to students by M/s. Keerti Enterprises.
  - ARM Cortex kits (10 Nos) and IO boards (10 Nos) donated by M/s. Phytech, Bangalore.
  - MSP430 kits (10 Nos) donated by M/s. Gill Instruments, Bangalore.
  - Keerti Enterprises sponsored Rs. 15,000/- for solar panel cleaning system developed by AIT students
  - IOT kit is donated by M/s. Gill Instruments, Bangalore.
  - An amount of Rs. 3, 00,000/- has been funded by AIT for implementing Energy saving LED lamp project for AIT campus.
  - UGC NET 2015 examination conducted on 28<sup>th</sup> June 2015. The amount received is Rs. 96,200/-

## 21. Faculty as members in

### National committees b) International Committees c) Editorial Boards

Sr No	Name of faculty	Committee/Board details
1	Dr B P Patil	1. Advisory Editorial Board of Ascent International Journal, International Journal of Advancement in Electronics and Computer Engineering. 2. Fellow of IETE, IE India. 3. Reviewer- a. Elsevier International conference IET, UK 4. Attended ATB meeting at Secunderabad on 11 <sup>th</sup> & 12 <sup>th</sup> March 2015. 5. Invited as expert for UGCON at NMIET, Talegaon, on 24 <sup>th</sup> March 2015
2	Mrs Surekha KS	1. IEEE Senior member 2. Member in interview panel of R&DE Pune to select SRF, JRF at 9 <sup>th</sup> May 2012. 3. Member for award committee at R&DE Pune in March 2012 4. Judge for National Conference at DYP COE Akurdi on 9 <sup>th</sup> & 10 <sup>th</sup> Jan 2015 5. Reviewer for IEEE 6. Reviewer for IETE and IE Approved National Conference On Signal & Data Processing (NCSDP-2015) 7. Interview Panel member at CWPRS, Pune.
3	Mr G R Patil	1. Chair for Sessions on Computer Networks, in third international conference–ICACCI 2015, Galgotias CoE, Greater Noida, India. 2. Reviewer for IEEE Transaction on Wireless

		Communication. 3. Reviewer for International conference ICPC-2015
4	Mr J B Jawale	1 Reviewed three papers in INDICON 2014 conference
5	Ms. Shraddha Oza	1. Reviewer for IETE and IE Approved National Conference On Signal &Data Processing (NCSDP-2015) 2. Interview Panel member at CWPRS, Pune.
6	Dr A Jain	1. Reviewer for IETE and IE Approved National Conference On Signal &Data Processing (NCSDP-2015)
7	Mr DG Auradkar	1. Reviewer for IETE and IE Approved National Conference On Signal &Data Processing (NCSDP-2015)
8	Ms Renuka Bhandari	1. Reviewer for IETE and IE Approved National Conference On Signal &Data Processing (NCSDP-2015)

## 22. Student projects

Year	Percentage of students who have done in-house projects including inter departmental/programme	Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies
2011-12	15 (71%)	06 (28%)
2012-13	06 (30%)	14 (70%)
2013-14	16 (41%)	23 (59%)
2014-15	26 (65%)	14 (35%)

## 23. a) Awards / Recognitions received by faculty

Sr No.	Name of faculty/student	Award/ Recognition	Year	Award /recognition received from
1	Mrs Preeti Warriar	Best Result	2012-2013	AIT, Pune
2	Prof Surekha K S	Best Teacher	2013-2014	AIT, Pune
3	Prof G R Patil	Best Result	2014-2015	AIT, Pune

## b) Awards / Recognitions received by students

University Toppers (Last 4 Years)

Sr No	Name	Class	Year	University Rank
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1	Jolene Singh	SE	2010	5 <sup>th</sup>
2	Shailiza Mayal	SE	2012	1 <sup>st</sup>
3	Shailiza Mayal	TE	2013	1st
4	Shailiza Mayal	TE	2013	9 <sup>th</sup> overall among all branches
5	Pooja Rai	BE	2014	10 <sup>th</sup>
6	Ms. Shailiza Mayal	TE.	2013	1 <sup>st</sup> Rank Cash prize of Rs.8,600/ By SPPU

#### Patents published by E&Tc Students

S. No.	Name of The Student	Title	Year
1	Akshay Dekate	Sandwich type supercapacitor making process	2011
2	Shailendra, Akansha Dixit, Amal Paul, Hema Upriti	Zigzag structured ultra-capacitor	2014
3	Akshay Dekate, Akansha Dixit	Intelligent self start unit using supercapacitor	2015
4	Akansha Dixit	Laboratory test setup for testing model of wind turbine	2015

#### Awards received in National Events

Sr. No.	Competition/Project	Participating department	Year	Awards
1	INTEL IOT Roadshow	E&Tc	2015-16	Won USD500 2 <sup>nd</sup> Prize
2	Escalade, IIT Guwahati	E&TC and Mechanical	2014-15	2 <sup>nd</sup> Prize
3	Roboshuttle Striking, LD College of Engineering, Ahemdabad	E&TC and Mechanical	2014-15	3 <sup>rd</sup> Prize
4	Robo sumo, IIT Bombay	E&TC	2014-15	5 <sup>th</sup> position
5	Texas Instruments Innovation challenge india Design Contest 2015	E&Tc	2014-15	Semi Finalist Won USD200
6	Mechatron, IIT Bombay	E&TC	2014-15	10 <sup>th</sup> Position
7	All India Technology and Innovation contest Technochamp 2014	E&TC	2014-15	2nd

8	GR Sakura Design Contest India 2013	E&TC	2013-14	1st
9	Ms. Divya Singh	BE	2012	COAS Best outgoing student Trophy By AWES, New Delhi

#### Number of Paper Presented by students in the last four years

2011-12	2012-13	2013-14	2014-15
25	23	30	21

#### Number of awards achieved in Inter/Intra Technical events by students in the last four years

2011-12		2012-13		2013-14		2014-15	
Inter	Intra	Inter	Intra	Inter	Intra	Inter	Intra
66	63	36	49	24	94	56	30

#### 24. List of eminent academicians and scientists / visitors to the department

##### A] Academic Year 2011-12

Sr. No.	Eminent Academicians/Scientists/Visitors	Date
1	Ms. Divya Padmanabhan R&D Lab, Intel, Bangalore, (AIT Alumni)	02 Sep 2011
2	Brig.(Retd) R Subramaniam, BVDU, Pune	28 Jan 12
3	Lt. Col J S Hada, MCTE, Mhow	30 Jan 12
4	Lt. Col. JB Bhaskar, MCEME, Secunderabad	31 Jan 12
5	Wg. Cdr D Adhikari, DIAT, Pune	01 Feb 12
6	Col Anupam Jhanji, DIAT, Pune	13 Feb 12
7	Brig(Retd) R Subramaniam, BVDU, Pune	10 Mar 2012

##### B] Academic Year 2012-13

Sr. No.	Eminent Academicians/Scientists/Visitors	Date
1	Dr. Virendra Kumar, Joint Director, ARDE, Pashan, Pune.	24 July 2012
2	Prof. G.S. Mani, Ex. Director, DIAT, Pune.	29 Jan 2013
3	Lt. Col. Vineet Puri	27 Sep 2012
4	Mr. Gurjeet Singh,	18 March 2013

	Director, Gill Instruments Pvt. Ltd., Bangalore.	
5	Ms.Divya Padmanabhan, INTEL Pvt. Ltd., Bangalore	19 March 2013

**C] Academic Year 2013-14**

Sr. No	Eminent Academicians/Scientists/Visitors	Date
1	Mr.Ravishankar, Mr.Nagmahesh, Phytec Bangalore	22 July 2013
2	Mr.Nagmahesh, Phytec Bangalore	27 July 2013
3	Mr. Nikhil Jotwani, NVIDIA	29 August 2013
4	Mr. Gurjit Singh, Gill Instruments Bangalore	17 Sept.2013 – 19 Sept.2013

**D] Academic Year 2014-15**

Sr. No.	Eminent Academicians/Scientists/Visitors	Date
1	Dr. DJ Das, Hitech Robotics Pvt Ltd	28 <sup>th</sup> Feb& 1st March 2015
2	Mr.Alok Mukherji, Scientist 'C'	28 <sup>th</sup> Feb& 1st March 2015
3	Vishal V Singh ,Scientist 'D'	28 <sup>th</sup> Feb& 1st March 2015
4	Dilip J Mawana, Scientist 'D'	28 <sup>th</sup> Feb& 1st March 2015
5	MK Pathak ,Scientist' E'	28 <sup>th</sup> Feb& 1st March 2015
6	Kathika Roy ,Scientist 'E'	28 <sup>th</sup> Feb& 1st March 2015
7	Altay MA Baig, Scientist' E'	28 <sup>th</sup> Feb& 1st March 2015
8	SS Dhol, Professor, COEP	28 <sup>th</sup> Feb& 1st March 2015
9	Dr.PK Pal Professor Scientist BARC, Mumbai	28 <sup>th</sup> Feb& 1st March 2015
10	Mr. Vaibhav Saini, scientist, DRDO	26 <sup>th</sup> sept 2014
11	Air Cmde (Dr) Sanjay Kumar AOC, 9BRD AF	28 <sup>th</sup> Aug 2014
12	Dr. Y. Ravinder, HOD E &TC ,PICT	27 <sup>th</sup> September 2014
13	Dr Himanshu Shekhar, Sci 'F', Jt Director HEMRL, Pune	3 <sup>rd</sup> March 2015
14	Ms. Jolene Singh, INTEL, USA	29 <sup>th</sup> dec 2014

**25. Seminars/ Conferences/Workshops organized & the source of funding (last four years data)**

- a) National
- b) International

Sr No	Name of Conference/Workshop	National/International	Funding details
1	FDP on Object Oriented Programming	Regional	From registration fees collected
2	IETE and IE Approved National Conference On Signal & Data Processing (NCSDP-2015)	National	From registration fees collected at AIT

S. No	Number of Conference/Workshop/seminar/Guest lecture organized/Industrial visit	Year	Funding details
1	15	2011-12	AIT
2	14	2012-13	AIT
3	22	2013-14	AIT
4	14	2014-15	AIT

#### 26. Student profile programme / course wise:

Year of Passing	Applications received For All Branches	Selected	Enrolled		Pass percentage %
			*M	*F	
2011-12	5829	60	50	10	88.33
2012-13	6175	60	47	13	91.66
2013-14	5913	120	87	33	86.66
2014-15	6122	120	93	27	93.33

\*M = Male \*F = Female

#### 27. Diversity of Students

Name of the Course E&Tc	% of students from the same state	% of students from other States	% of students from abroad
2014-15	1.66	98.33	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Year	Number of students
2011-12	8
2012-13	6
2013-14	9
2014-15	5

## 29. Student progression

Student progression	Against % enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	(5/57) 8.77%	(5/54) 9.25%	(5/108) 4.62%	(5/110) 4.54%
PG to M.Phil.	-	-	-	-
PG to Ph.D.	-	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-
Employed Campus selection	53 out of 57	45 out of 54	89 out of 108	99 out of 110
Other than campus recruitment	-	-	-	-
Entrepreneurship/ Self-employment				

## 30. Details of Infrastructural facilities

### a) Departmental Library

Particulars	Quantity (No.s)
Total Titles (Reference & Text Books)	284
Total Copies	363
Project Reports (UG)	413
DVD/Video CD's (NPTEL)	41
Question Papers	Sets available for SE/TE and BE classes

**b) Internet facilities for Staff & Students**

Internet Facility is provided with a total bandwidth of 177Mbps. It includes

Speed	Service Provider	Available to
75Mbps	BSNL	Class rooms Laboratories Hostels Faculty Rooms Office
100Mbps	NKN	
2Mbps	Aircell	

**c) Class rooms with ICT facility**

Rooms are equipped with

- Black board
- Chair & Table
- LCD Projector
- PC
- Tube lights, Fans
- Podium, Dias
- Cupboard
- Internet connectivity
- Wi-Fi

**d) Laboratories**

Sr. No.	Name of Laboratory	Major equipment
1	Basic Electronics Lab	Antenna Trainer Kit
		6 ½ DVM
		Logic Analyzer 24 Channels
		Measurement of EMI Kit
2	Digital Electronics & Microprocessor Lab	LCD projector
		Linear cum Digital IC Tester Model
		PIC Microcontroller kit
		3G Mobile Trainer Kit
		89C51 Microcontroller kit
		Digital & Analog Ic Tester(Min Max) 40 pin ZIF socket
		ARM 7 & cortex embedded processor kit
HP Compaq Intel Core I5-3470, 3.2GHz, 6MB cache, Q77, 4GB DDR3, 500GB HDD, 18.5" TFT, HP Nvidia Graphics Card 2 GB		
3	Audio- Video Lab	RF Communication Lab Station
		Arbitrary Waveform Generator
		TV Trainer Kit
		HDTV

Sr. No.	Name of Laboratory	Major equipment
		EMI /EMC Experimental Set up
		Wave Theory & Antenna Trainer Kit
		Close field probe set 9KHz-1GHz
		2 Channel, 70MHz DSO
4	Power Electronics & Network Lines Lab	Optical Fiber Communication Kits
		Labview Software For TMT
		OTDR SM 1310/1550nm with 2KM single mode fibre cable
		Video Projection System
		IWATSU Analog Oscilloscope ModelSS-7802A
5	ESD & MP Lab	Dual outputpower Supply,SCR pre regulated, Bench Rack adaptable,0-32V/05A, Model LD3205
6	Radiation & Microwave Lab	APLAB 3639-100MHz Osilloscope
		Gunn Diode
		Microwave Test Bench
		10KVA UPS
7	Computer Systems Lab	Server IBM x255 Prestonia 2.8GHz / 512/OHDS/533 MHz 512KB Cache 36.4 10KRPM, U320S HS HDD
		HP Z420N-E5 1603 2.8/16GB Workstation, DVI-VGA Cable LV1911 18.5" LED Monitor
		HP Z420 Intel Xeon E5 1603, 2.8GHz, 8GB Ram, 1TB HDD, DVD RW
		HP Compaq Intel Core I5-3470, 3.2GHz, 6MB cache, Q77, 4GB DDR3, 500GB HDD, 18.5" TFT, HP Nvidia Graphics Card 2 GB
		10 KVA UPS Systems
		Matlab R2013a
		Server IBM x255 Prestonia 2.8GHz / 512/OHDS/533 MHz 512KB Cache 36.4 10KRPM, U320S HS HDD
8	VLSI & Embedded System Design	Xilinx Make ISE series US-ISE-FND (VER 9.1)
		Microwind software
		Spartan II & III Kits
		ARM 7 & ARM 9 Kits
		Triton IDE
9	PCB Lab	PCB shearing machine PCB film maker Cutting machine Drill machine Dip coat machine UV exposure unit
10.	Programming Lab	Multisim Software IBM PIV PCs

31. Number of students receiving financial assistance from college,

university, government or other agencies

Year	Number of students receiving financial assistance
2011-12	35
2012-13	61
2013-14	99
2014-15	113

### 32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts (last four years data)

#### A] Academic Year : 2011-12

Sr. No	Title	Resource person	Target audience	Funding Details
1	RF measurements (Seminar)	Mr.Waman Joglekar Director, Synergy Measurement Technologies Pvt. Ltd., Pune	T.E E&TC (Div-A&B) students	AIT
2	Workshop on Electronic Mini Projects	Mr. V B Bapat Technical Consultant Pune	S.E E&TC students	AIT
3	Workshop on Matlab	Prof.Sushma Shelke Asst. Prof. PICT, Pune	T.E E&TC students	AIT
4	VLSI Design; Current Trends	Ms.Divya Padmanabhan R&D Lab Intel , Bangalore (AIT Alumni)	BE E&TC students	AIT
5	Workshop on Multisim Based Simulation	Mr.Ravikumar Trident Techlabs	S.E E&TC students	AIT
6	Guest Lecture on "Recent Trends in Mobile services & Billing"	Mr.Pankaj Nirale Redknee India Pvt. Ltd.	B.E E&TC students	AIT
7	Guest Lecture on "Information & Network Security"	Brig.(Retd) R Subramaniam, BVDU, Pune	BE E&TC students	AIT
8	Guest Lecture on "EMI/EMC In Military Application"	Lt. Col J S Hada (MHOW)	All E&TC students	AIT
9	Guest Lecture on "Avionics"	Lt. Col. JB Bhaskar, MCEME, Secunderabad	TE, BE students	AIT
10	Guest Lecture on "GPS Guidance in	Wg. Cdr D Adhikari (DIAT)	SE,TE E&TC	AIT

	Aerospace”		students	
11	Guest Lecture on “Mobile Communication”	Col Anupam Jhanji (DIAT)	TE, BE students	AIT
12	Guest Lecture on “Mobile Communication Security”	Brig(Retd) R Subramaniam, BVDU, Pune	SE, TE students	AIT
13	Guest Lecture on “Optical Fiber communication”	Dr R K Prasad	SE, BE students	AIT

**B] Academic Year 2012-13**

Sr. No.	Title	Resource person	Target audience	Funding Details
1	Guest Lecture on “BE Project work”	Mr.Chandrashekhar Bharat Forge, Pune	B.E E&TC students	AIT
2	National Workshop on “Signal and Image Processing using Lab view (SIPLV-2012)”	Mr.SahilSinghla National Instruments, Pune	All E&TC Students & Staff	AIT
3	Guest Lecture on “Armament Electronics”	Dr.Virendra Kumar, Joint Director, ARDE, Pashan, Pune.		AIT
4	Guest Lecture on “Radar Principles & Applications”	Prof.Narendra Gupta, Ex. Faculty, DIAT, Pune.	T.E, B.E E&TC (Div-A&B) students	AIT
5	Guest Lecture on “Use of Real-time Simulation Platform for Development of Defense /Aerospace Embedded System”	Mr.VikasPuri, Country Manager, Realtimewave, India.	T.E, B.E E&TC (Div-A&B) students	AIT
6	Guest Lecture on “Linux & Embedded Systems”	Mr.Kuldeep Singh, Persistent, Pune	B.E E&TC (Div-A&B) students	AIT
7	Guest Lecture on “Linux & Embedded Systems”	Mr.Amit Jayesh, Oasis Technologies, Pune	B.E E&TC (Div-A&B) students	AIT
8	Application of	Mr.Vasu	TE E&TC	AIT

Sr. No.	Title	Resource person	Target audience	Funding Details
	Android in Embedded Systems	Easy Arm Technologies, Bangalore	(Div-A&B) students	
9	Electronic Warfare	Prof. G.S. Mani, Ex. Director, DIAT, Pune.	All E&Tc students	AIT
10	Software Simulation Tools.	Lt. Col. Vineet Puri	TE E&TC (Div-A&B) students	AIT
11	PCB Designing	Prof. AvinashPatil, AIT,Pune	TE E&TC (Div-A&B) students	AIT
12	Embedded System Design using “MSP 430”	Mr. Gurjeet Singh, Director, Gill Instruments Pvt. Ltd., Bangalore.	TE E&TC (Div-A&B) students	AIT
13	Motivational Talk	Ms.Divya Padmanabhan, INTEL Pvt. Ltd., Bangalore	All E&TC students	AIT

#### C] Academic Year 2013-14

Sr. No.	Title	Resource person	Target audience	Funding Details
1	One day Workshop on “Linux based ARM development”.	Mr.Ravishankar, Mr.Nagmahesh, Phytec Banglore	BE E&TC (Div-A&B) students	AIT
2	One day Workshop on “Embedded C based ARM development”.	Mr.Nagmahesh, Phytec Banglore	BE E&TC (Div-A&B) students	AIT
3	One day Workshop on “Proteus Simulation Tools”.	Mr. Avinash Patil, AIT, Pune	SE E&TC (Div-A&B) students	AIT
4	Guest Lecture on “Future of Messaging”	Mr. Mayour	All E&TC students	AIT
5	Seminar on “Parallel Computing”	Mr. Nikhil Jotwani, NVIDIA	TE, BE E&TC (Div-A&B) students	AIT
6	One day	Mr. Amit Jaish	BE E&TC	AIT

Sr. No.	Title	Resource person	Target audience	Funding Details
	Workshop on “Embedded Linux”		(Div-A&B) students	
7	One day Workshop on “Digital Signal Processing using TMS320C6713”	Mr.Lokendra	TE E&TC (Div-A&B) students	AIT
8	One Day Workshop on “MATLAB”	Mr. Ameya Metangle	SE E&TC	AIT
9	One Week Workshop on “Advance Industrial Automation”	Mr. Himanshu Kumar Mr. Amit Kumar	SE E&TC (Div-A&B) students	AIT
10	One Day Workshop on “VHDL Programming”	Mr. Avinash Patil, AIT, Pune,	SE E&TC (Div-A&B) students	AIT
11	One Day Workshop on “CUDA Programming”	Mr. Ashish Mankar	TE E&TC (Div-A&B) students	AIT
12	Seminar on “Parallel Processing”	Mrs.Vrushali Shirsaoakar,	BE E&TC (Div-A&B) students	AIT
13	One Day Workshop on “Multiprocessor Architecture and Programming”	Mr. Ashish Mankar	TE, BE E&TC (Div-A&B) students	AIT
14	Industrial Visit	FTII, Pune	SE E&TC (Div-A&B) students	AIT
15	Industrial Visit	Southern Command, Pune	SE E&TC (Div-A&B) students	AIT
16	Industrial Visit	Vishay Component, Pune	BE E&TC (Div-A) students (50)	AIT

Sr. No.	Title	Resource person	Target audience	Funding Details
17	Industrial Visit	Frontline Electronics, Pune	BE E&TC (Div-B) students	AIT
18	Industrial Visit	BSNL, Chinchwad, Pune	BE E&TC (Div-A) students	AIT
19	Industrial Visit	BSNL, Chinchwad, Pune	BE E&TC (Div-B) students	AIT

**D] Academic Year 2014-15**

S No	Title	Resource person	Target audience	Funding Details
1	Guest Lecture on "Embedded C"	Mr.Chowdhury Prashant	TE E&TC (Div-A&B) students	AIT
2	Guest Lecture on "Hybrid Model & Analysis of Transistors"	Mr.Satish Narkhede	TE E&TC (Div-A&B) students	AIT
3	Workshop on "RSI On Robotics Technologies" at science day	Mr.Alok Mukherji, Scientist 'C' Vishal V Singh, Scientist 'D' Dilip J Mawana, Scientist 'D' MK Pathak, Scientist 'E' Kathika Roy, Scientist 'E' Altay MA Baig, Scientist 'E' SS Dhol, Professor, COEP Dr.PK Pal Professor Scientist BARC, Mumbai 9.Dr. DJ Das, Hitech Robotics Pvt Ltd	SE, TE E&TC (Div-A&B) students	AIT with RSI club
4	Seminar on "Internet Of Things"	Mr Ankur, Gill	TE E&TC (Div-A&B) students	Gill Instrument
5	Short term course	Mr Amol Warole	All E&TC	NVIDIA

	on “CUDA”	Mr Rahul Beware Mr Avinash Sawant	students	(I-Bridge Consulta ncy)
6	Seminar on “Engg. Challenges in Indigenous Rocket Development”	Dr. Himanshu Shekhar, Jt Director, HEMRL(DRDO), Pune	TE E&TC (Div-A&B) students	AIT
7	One day seminar on “Data Structures”	Mr G R Patil, AIT, Pune	SE E&TC (Div-A&B) students	AIT
8	One day Workshop on “Proteus Simulation Tools”.	Mr. Avinash Patil, AIT, Pune	SE , TE E&TC (Div-A&B) students	AIT
9	Signals Southern Command	Industrial Visit	TE , BE E&TC (Div-A&B) students	AIT
10	Short term course on C++, JAVA	Mr Rahul	SE, TE E&TC	Included in student fees

### 33. Teaching methods adopted to improve student learning

- Learning Digital Material - Each faculty creates e learning material in the form of presentations
- E Learning System The resource material is shared with the students on E learning system - Moodle
- Videos - Institute maintains data base of NPTEL Videos. The videos are shown to students to support the course learning
- Hands On Workshops – Small workshops are arranged for students
- Lectures by Experts - Lectures by experts in the respective domain are arranged so as to give the students an insight in applied technology
- Class Tests - students are made to study regularly and their performance is analysed by conducting class tests.
- Assignments - Out of syllabus assignments are given to students

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Under the NSS club, students initiate different social activities such as blood donation camps, tree plantation and visits to orphanages

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Quality Intake
- Excellent Academic Results
- Excellent Placements
- Good Infrastructure & Environment

- Better Industry-Institute Interaction
- Experienced & Dedicated Faculty and Staff

**Weakness**

- Less number of publications and patents
- The department does not have a PG Course
- No Consultancy done by the department

**Opportunities**

- Starting a PG course and Research Centre in the department may improve research component
- R&D Funds will make State of art laboratories
- Attracting core industry for placement
- Autonomy will give flexibility in bridging the curriculum gap

**Challenges**

- More number of IITs and NITs will affect quality inputs
- Fluctuating Market demand for E&TC Engineers may attract less number of students
- Foreign university may attract students
- Attract faculty with industrial background

**Future Plans**

- To start PG course
- To set up Center of excellence
- To publish more number of patents
- To improve in the area of research & consultancy

**EVALUATIVE REPORT OF INFORMATION TECHNOLOGY  
DEPARTMENT**

1. **Name of the department :** Department of Information Technology
2. **Year of Establishment:** 2001-02
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**UG
4. **Names of Interdisciplinary courses and the departments/units involved:** Nil
5. **Annual/ semester/choice based credit system (programme wise):** Semester Pattern.
6. **Participation of the department in the courses offered by other departments:**

S.No	Course	Department
1	Fundamentals of Programming Languages-1	Applied Science and General Engineering
2	Fundamentals of Programming Languages-II	Applied Science and General Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:** NIL
8. **Details of courses/programmes discontinued (if any) with reasons:** NIL
9. **Number of Teaching posts**

	Sanctioned	Filled
Professors	01	01
Associate Professors	03	01
Asst. Professors	10	13

10. **Faculty profile with name, qualification, designation,**

specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)

Name	Qualification	Designation	Specialization	No. of Years Of Experience	No of PhD students guided for the last 4 years
Dr. (Mrs.)Sangeeta Jadhav	PhD (Electronics Engg)	Professor	Electronics Engg	22	02(Ph D)
Dr. Jayadevan R	PhD(Computer)	Associate Professor	Computer Engineering	11	01(Ph D)
Mr Rahul Desai	M Tech (E&TC), PhD Pursuing	Asst. Professor	E & TC	15	-
Ms Vaishali Ingale	ME (Comp)	Asst. Professor	Computer	13	-
Ms Ashwini Sapkal	ME (IT)	Asst. Professor	IT	13	-
Ms Geeta Patil	ME (E&TC)	Asst. Professor	E & TC	13	-
Mr Gajanan Walunekar	ME (Comp)	Asst. Professor	Computer	12	-
Ms Savita Mangalore	ME (Comp)	Asst. Professor	Computer	15	-
Ms Nilima Walde	ME (Comp Networking)	Asst. Professor	Computer Networking	7	-
Mr Sandeep Samleti	ME (Comp)	Asst. Professor	Computer	7	-
Mr Yuvraj Gholap	ME (Comp)	Asst. Professor	Computer	7	-
Ms Rupali Bagate	ME (Comp)	Asst. Professor	Computer	7	-
Ms Sita Yadav	ME (Comp)	Asst. Professor	Computer	5	-
Ms Aparna Joshi	ME (Comp)	Asst. Professor	Computer	7	-
Ms Archana Shelar	ME (Comp)	Asst. Professor	IT	3	-

11. List of senior visiting faculty: Dr.Deepak Shikarpur (2010-11)

12. Percentage of lectures delivered and practical classes handled(programme wise)by temporary faculty :14%

13. Student -Teacher Ratio (programme wise)

Year	Total number of students	Total number of faculty	Student-Teacher ratio
2011-12	180	14	12:01
2012-13	180	14	12:01
2013-14	180	14	12:01
2014-15	180	14	12:01

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

	Sanctioned	Filled
Academic Support Staff ( Technical)	06	06
Administrative	02	02

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.**

	Number
Ph D	2
PG	13
UG	NIL

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received**

S. No	Name of Faculty	Title of Research Project	Funding Agency	Amount (Rs.)
1	Mr. Walunjkar Gajanan (PI) Mr. Yuvraj Gholap	Man Machine Interaction using Fuzzy Recognizer for Automation and Application authentication with performance analysis	BCUD, Pune University	Rs. 75,000/-
2	Ms. Rupali Bagate(PI) Dr. (Mrs.) Sangeeta Jadhav	Navigation system using optical detection technique for visually impaired	BCUD Pune University	Rs.80,000/-
3	Mrs. Geeta Patil (PI) Mr. Rahul Desai	A zigBee based intelligent self adjusting sensor and energy management system for home automation.	BCUD Pune University	Rs. 1,05,000 /-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received (last four years data): NIL**

18. Research Centre /facility recognized by the University  
state recognition : Nil

19. Publications:

**Publication per faculty**

Sr.No	Name of the Staff	International / National Papers Summary
1	Dr.(Mrs.) Sangeeta Jadhav	International:14 National : 5 (Total : 19)
2	Prof. Rahul Desai	International:17 National :2 (Total : 19)
3	Prof. Vaishali Ingale	International:6 National :6 (Total : 12)
4	Prof. Ashwini Sapkal	International:6 National :4 (Total : 10)
5	Prof. Geeta Patil	International:5 National :2 (Total : 07)
6	Prof. Gajanan Walunjkar	International:10 National :4 (Total : 14)
7	Prof. Savita Manglore	International:3 National :1 (Total : 04)
8	Prof. Yuvraj Gholap	International:3 National :1 (Total : 4)
9	Prof. Nilima Walde	International:2 National :2 (Total : 04)
10	Prof. Sandeep Samleti	International:2 National :1 (Total : 03)
11	Prof. Rupali Bagate	International:6 National : 0 (Total : 06)
12	Prof. Seeta Yadav	International:5 National : 0 (Total : 05)
13	Prof. Aparna Joshi	International:03 National :01 (Total : 04)
14	Prof. Archana Shelar	International:03

	National :02 (Total : 05)
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**b) Number of papers published in peer reviewed journals (national /international) by faculty and students (last four years data)**

S No	Name of faculty	Number of publications in peer reviewed journals (National )	Number of publications in peer reviewed journals (International )	Number of publications in international	Av. Citation index	Av. impact factor	SNIP	SJR
1	Dr.Mrs.Sangeeta Jadhav	4	7	0	0.6	0.6	0.13	0.5
2	Prof. Rahul Desai	0	05	0	0	0	0	0.1

**\*Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)**

**c) Monographs – NIL**

**d) Chapter in Books with ISBN/ISSN numbers with details of publishers**

**e) Books Edited with ISBN/ISSN numbers with details of publishers**

**f) Books with ISBN/ISSN numbers with details of publishers**

S.No.	Name of Book	Name of author	ISBN/ISSN number	Publisher and year
1	Data Structure and Files (IT/COMP)	Vaishali Ingale	ISBN 938006490_x	Nirali Prakashan, Pune,2011
2	Data Structure and Files(E & TC)	Vaishali Ingale	ISBN 93808006492_6	Nirali Prakashan, Pune,2011
3	Artificial Intelligence (2008 Pattern)	Vaishali Ingale, Ashwini	ISBN 978-93-81595-27-5	Nirali Prakashan, Pune, 2012

		Sapkal		
4	Artificial Intelligence (2008 Pattern) for E&TC and Electrical Branch	Vaishali Ingale, Ashwini Sapkal	ISBN 978-93-81962-89-3	Nirali Prakashan, Pune, 2012
5	Distributed operating System	Ashwini Sapkal	ISBN 978-9381962-85-5	Nirali Prakashan, Pune, 2012

### g) h-index

S. No.	Name of faculty	h index
1	Sangeeta Jadhav	3
2	Rahul Desai	2
3	Ashwini Sapkal	1

### 20.Areas of consultancy and income generated

Area:-IT application-Website Development

Details of Company:- Kaveri Realtors

Amt:-Rs 120000/-

Year of sanction:- Yr 2014-15

### 21.Faculty as members in

a)National committees b) International Committees c) Editorial Boards....

S No.	Name of faculty	Committee/Board details
1	Dr Sangeeta Jadhav	-Editorial board member-Journal ICTACT, -FIETE, -LMISTE, - Member of IEEE -Convener for International Conference CCSEIT2014 -Session Chair for two international conferences
2	Rahul Desai	LMISTE
3	Ashwini Sapkal	Member of CSI and LMISTE
4	Vaishali Ingale	LMISTE
5	G Walunekar	Member of CSI and LMISTE
6	Geeta Patil	LMISTE

**22.Student projects**

Year	Percentage of students who have done in-house projects including inter departmental/programme	Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies
2011-12	25%	75 %
2012-13	23%	77%
2013-14	25%	75 %
2014-15	20%	80 %

**23.Awards / Recognitions received by faculty and students****Technical Awards:**

S. No.	Name of faculty/student	Award/recognition	Award /recognition received from
1	Shiv Kumar –BE Student  Rachna	1st Prize  Best Paper Award in ESIC 2014 competition on September 2014	ISSRD Tamilnadu
2	Sanjay Rawat- TE Student	3rd Prize in CSI National Programming Contest on 21 <sup>st</sup> February 2015	Computer Society of India

**Academic Awards:**

S.No.	Name of Student	Recognition received
1	Agrima Seth	From University for holding 2 <sup>nd</sup> Rank inSE(IT) in Yr-13-14
2	Sanjay Kumar	From University for holding 4 <sup>th</sup> Rank inTE(IT) in Yr-13-14

**Students Achievements and Activities in Other Colleges**

S.No.	Event Name	Student Name	Position	Class
1	National Level Project Competition at BVCOE, Pune.	Rachna Gupta	1 <sup>st</sup> Prize	BE
		Shiv Kumar		BE

	<b>Faculty Incharge : Dr.Mrs. Sangeeta Jadhav</b>	Manish Kumar Narayan Singh		BE BE
2	International Level Project Competition at Bharati Vidyapeeth COE, Pune. <b>Faculty Incharge : Dr.Mrs. Sangeeta Jadhav</b>	Rachna Gupta Shiv Kumar Manish Kumar Narayan Singh	1 <sup>st</sup> Prize	BE BE BE BE
3	Project Presentation	Vivek Yadav	1 <sup>st</sup> Prize	BE
4	Paper Presentation at BVCOE, Pune.	Rachna Gupta Shiv Kumar Manish Kumar Narayan Singh	2 <sup>nd</sup> Prize	BE BE BE BE
5	Paper Presentation at BVP, Pune.	Rachna Gupta Shiv Kumar Manish Kumar Narayan Singh	1 <sup>st</sup> Prize	BE BE BE BE
6	Paper Presentation at MAE, Alandi.	Rachna Gupta Shiv Kumar Manish Kumar Narayan Singh	1 <sup>st</sup> Prize	BE BE BE BE
7	Paper Presentation at Modern, Pune	Rachna Gupta Shiv Kumar Manish Kumar Narayan Singh	2 <sup>nd</sup> Prize	BE BE BE BE
8	Neo(C/C++ Coding) Zion'14 at DYPCOE, Pune	Sanjay Ravat Anuj Verma	1 <sup>st</sup> Prize	SE
9	Trivia and Science Quiz at AISMS COE, Pune	Bikas Kumar Rai	1 <sup>st</sup> Prize	SE
10	PCTE Group of Institutes, B K Memorial Debate Event	Kiran Sai Sahil Parmar A V Avinash	5 <sup>th</sup> Prize National Level	TE
11	Project in MELANGE 2014 in VIT, Pune	Jayant Kumar Raunak Bhadoriya	1 <sup>st</sup> Prize	SE
12	Web Designing Event – Golden Web link in MIT, Kothrud	Ankit Aman	1 <sup>st</sup> Prize	SE
13	City App Competition in Junior World Entrepreneurship Forum 2014 at E-cell, Birla Institute of Management Technology, Noida	. Singh Aman Kumar Gaurav Singh	1st Prize Ankit	TE
14	Codek Competition held at D.Y.Patil, Pune on 7th September	Sanjay Rawat	1st Prize	TE
15	Codek Competition held at D.Y.Patil, Pune on 7th September	Jaya Bisht	1st Prize	TE

16	Creating B-Plan competition held at PICT, Pune	Abhijay Ghildyal	3rd Prize	BE
17	City App Competition in Junior World Entrepreneurship Forum 2014 at E-cell, Birla Institute of Management Technology, Noida.	Anirudh Rao	1st Prize	SE
18	Entrepethon-14 at AIT Pune	Vikash Khairwal	1st Prize	SE
19	Entrepethon-14 at AIT Pune	Himmat Singh	1st Prize	SE
20	City App Competition in Junior World Entrepreneurship Forum 2014 at E-cell, Birla Institute of Management Technology, Noida.	Nitin Mishra	1st Prize	SE
21	Presented poster on project titled as "Bus Adda" in Avishkar-2014, National level Project Competition at JSPM's, Wagholi.	Ankit Singh Aman Kumar Gaurav Ritesh Pandey	Participated	TE
22	CSI National Programming Contest on "Discover Thinking" at Noida	Sanjay Rawat	3rd	TE
23	Participated in ERROR Coding at MIT, Alandi	Vivek Sharma	2nd	TE
24	Participated in Code-Ckers at Modern College of Engineering, Pune	Vivek Sharma	1st	TE

#### 24. List of eminent academicians and scientists / visitors to the department

S.No.	Name of visitor	Year
1	Dr. Aditya Abhyankar, Researcher at TRDDC Pune.	4th April 2014
2	Dr. P .K. Sinha from CDAC	8th August to 9th August 2014
3	Honorable Dr.APJ Abdul Kalam	15th September 2014
4	Dr. Uday Khedker IIT MUMBAI.	26th July 2013
5	Dr.Soumen Chakrabarti,IIT Bombay	30th July 2013
6	Mr. Jayant V Desale, Technocorp Solution Pvt. Ltd	24th July to 26th July 2013

7	Mr.Yogeshwar Shukla	2013
8	Dr. Sachin Pawar, Researcher at TRDDC Pune.	28th September 2013
9	Mr.Alok Mukherjee, Scientist 'F', DRDO	3rd January 2014
10	Mr.Kashish Sachdeva and Mr.Nishant Puri	15th January to 16th January 2014
11	Mr. Girish Ghate, ATS InfoTech Ltd	20th February to 22nd February 2014
12	Dr. Maitreya Natu, Researcher at TRDDC Pune	9th July 2014
13	Mr. Vikrant Chandekar	21st July to 23rd July 2014
14	Mr. Gautam Rege from Josh Software	29th September 2014
15	Dr. Ramesh Karandikar , Sommaya College of Engineering , Bombay	7th January 2015
16	Mr. Paresh Sahasrabudhe , Pitny Bocobse Software	12th - 14th February 2015
17	Mr. Tushar Kute , Sandeep Institute of Technology and Research Center	28th February 2015
18	Mr. Ryan D'Souza , Country manager, Hyperscale with HP India.	27th March 2015
19	Dr.Umesh Bellur, IIT Bombay	27 <sup>th</sup> July 2015

**25. Seminars/ Conferences/Workshops organized & the source of funding (last four years data)**

- a) National  
b) International

S.No.	Name of Conference/Workshop	National/International	Funding details
1	Workshop on Microsoft .NET 12 June-14 June 2014	InterCollege	AIT
2	Workshop on IBM Rational Rose and Testing Tools 24 June – 28 June 2014	InterCollege	AIT
3	Workshop on QT Framework 21st July to 23rd July 2014	InterCollege	AIT
4	Workshop on Big Data and	InterCollege	AIT

	Hadoop 8th and 9th January 2015		
5	Workshop on Cloud Computing 12th - 14th February 2015	InterCollege	AIT
6	Workshop on Linux Applications and Kernel programming 5th September to 7th September 13	InterCollege	AIT
7	Workshop on PHP 24th July to 26th July 2013	InterCollege	AIT
8	Workshop on JAVA 9th January to 11th January 2014	InterCollege	AIT
9	Workshop on OPENGL And Animation Tool 20 <sup>th</sup> February to 22 <sup>nd</sup> February 2014	InterCollege	AIT
10	Workshop on Oracle 10g WDP Database	InterCollege	AIT
11	Workshop on Oracle Workforce Development Program : Oracle 11g database and java	InterCollege	AIT
12	Training Program on Information Security & Cyber Forensics	InterCollege	AIT
13	Workshop on DB2 Database Application Fundamentals	InterCollege	AIT
14	Fourth International Conference on Computational Science, Engineering and Information Technology (CCSEIT-2014) 8 <sup>th</sup> -9 <sup>th</sup> August 2014	International	Sponsoring Agencies and College / Departmental Budget

#### 26. Student profile programme/course wise:

Year	Applications received For All Branches	Selected	Enrolled		Pass percentage %
			*M	*F	
2011-12	5829	60	50	10	82.26
2012-13	6175	60	54	6	85.19
2013-14	5913	60	55	5	89.23
2014-15	6122	60	52	8	87.93

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
UG-Information Technology(2014-15)	2%	98%	Nil

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?**

Year	Number of students
2011-12	3
2012-13	4
2013-14	4
2014-15	3

**29. Student progression**

Student progression	Against % enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	15	8	5	-
PG to M.Phil.	-	-	-	-
PG to Ph.D.	-	-	-	-
Ph.D. to Post-Doctoral	-	-	-	-
Employed Campus selection	93%	86%	90%	92%
Other than campus recruitment	-	-	-	-
Entrepreneurship/Self-employment				

**30. Details of Infrastructural facilities****a) Library**

Library: Department has a small library with 200 number of books, Project reports and Seminar reports. Total Cost is Rs. 0.5

Lakhs.

**b) Internet facilities for Staff & Students**

Internet facilities for staff and students: Every staff is given a PC with Internet Connection. All labs are also equipped with latest configuration PCs with Internet for students.

**c) Class rooms with ICT facility**

Total number of class rooms : 02 Class Rooms + 01 Tutorial Room  
Class rooms with ICT facility: Yes, All Classrooms are equipped with LCD Projector and Latest Configuration PC.

**d) Laboratories**

Students' laboratories: Total Number of Labs – 06 (Including Hardware Lab Shared with Computer Dept.)

Name of the Laboratory	Name of the Important equipment
IT Lab I	HP 6200 i5 Promicro Tower 3.10 GHz,4 GB RAM,500 GB HDD(14) HP 6300 i5 Promicro Tower 3.20 GHz,8 GB RAM,500 GB HDD(04) IBM Net Vista P4 1.7 GHZ, 1 GB RAM,40GB HDD (Antivirus not supported)(01) IBM Lenovo ThinkcenterD2C 2.93 GHz,2 GB RAM,300 GB HDD.(01) Networking Switch 24 pin.(02) Epson LX-300 II Dot Matrix Printer.(01) HP Scanjet 7400c.(01)
IT Lab II	IBM Lenovo ThinkcenterD2C 2.93 GHz,2 GB RAM,300 GB HDD (12) HP 6200 i5 Promicro Tower 3.10 GHz,4 GB RAM,500 GB HDD (01) HP 6300 i5 Promicro Tower 3.20 GHz,8 GB RAM,500 GB HDD (5) HP 8300 Micro Tower, 3.20 GHz, 8 GB RAM, 500 GB HDD (10) Projector - Infocus Projector
IT Lab III	IBM <b>Server</b> X232 Intel 1.26 GHz, 512 MB RAM (01) IBM X3650 M4 (2u Rack <b>Server</b> ) Intel Xeon E5 2609 (Quad Core) 2.40GHz, 16GB RAM(01) IBM PC Think Center M50 PIV 2.8 GHZ, 512 MB Ram, 80 GB HDD (Antivirus not supported) (02) IBM Net Vista P4 1.7 GHZ, 1 GB RAM,40GB HDD (Antivirus not supported) (04)

	IBM PC Think Centre Dual Core 2140 @1.60GHz 800 MHz ,2 GB RAM(29) IBM Lenovo i3 Workstation 550 @3.20GHz 4GB RAM(02) CCTV Camera(01) Canon LBP-2900 LaserJet Printer(01) Video Projection System Hitachi(01) Wi-Fi Access Point (CISCO)(01) Networking Switch 24 pin.(02) 11 KVA UPS (01)with Battery (20) Scanner HP G-2410(01) Wireless Audio System with Amplifier(01)
SL-I	1.HP EliteDesk 800 G1 TWR, intel Core i5, 4 GB RAM, 500 GB HDD 2. IBM Net Vista P4 1.7 GHZ, 1 GB RAM,40GB HDD 3. HP Laserjet P1007 Printer
SL-II	1.HP EliteDesk 800 G1 TWR, intel Core i5, 4 GB RAM, 500 GB HDD 2. HP 6300 i5 Promicro Tower 3.20 GHz,8 GB RAM,500 GB HDD 3. IBM Net Vista P4 1.7 GHZ, 1 GB RAM,40GB HDD 4.Cisco SG 300-28-28Port Gigabit Manged Switch
Incubation Center	1. Lenovo Think center A85 500 GB HDD, Intel Core i3 ,4 GB RAM 2. IBM Net Vista P4 1.7 GHZ, 1 GB RAM,40GB HDD
Hardware Lab (Shared with Computer Department)	Digital Trainer Kits Digital I/C Tester Digital I/C Tester

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	Total Number of students receiving financial assistance
2011-12	14
2012-13	39
2013-14	49
2014-15	42

**32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts (last four years data)**

S No.	Nature of program	Name	of	Date/Year
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		<b>external expert</b>	
1	The Changing Perception of the Internet, Web technologies and Trends.	Mr. Gautam Rege, Josh, Pune	2011
2	Enterprise Architecture and Management	Mr. Abhijit Devgirikar	2011
3	Journey as technology Entrepreneur	Mr. Anup Tapadia Founder Touchmagix	2011
4	Career and opportunities in Software/Core Industries	Dr. Deepak Shikarpur (IT Entrepreneur, Writer and Member IT Task Force Govt of Maharashtra)	2012
5	Latest Technology Trends and Career Opportunities	Mr. Rajesh Vartak CTO-SEED Infotech Ltd. Pune	2012
6	Software testing – New Career Opportunities.	Mr. Nilesh Deshmukh – Team Lead HSBC Software Solutions India	2012
7	SSB Coaching	Col. A Datta (Retd) Director Schools, AWES Delhi	2012
8	GD Skills and Personal Interview	Lt Col Prem Anand, Triple S Skill School	2012
9	Effective Technical Interviews for Jobs in IT & ITES field	Mr. Shashank Parab, Practice Head, GS Lab	2012
10	A Methodical Approach to Research	Dr. J P Modak, Ex—Prof VNIT, Nagpur	2012
11	Open Source	Dr. Deepak Shikarpur (IT Entrepreneur, Writer and Member IT Task Force Govt of Maharashtra)	2012
12	Energy conservation and energy Management	Dr. Madhav Kane - Founder, Techno Mentor	2012

13	Conferring of life time achievement award	Dr. Ganesh Natrajan - Vice Chaireman, Zensar Technology	2013
14	Life in the SAP world	Mr. Satish Sarathy - Head, L&T Infotech	2013
15	Soft Skills	Prof. Mukhopadhyay, COEP, Pune	2013
16	Machine Learning	Dr. Parag Kulkarni	2013
17	Software Engineering	Dr. Shashikant Kelkar, IIT Mumbai	2013
18	Problem Solving	Mr. Gaurav Joshi, Persistent Systems Pvt. Ltd., Pune	2013
19	How Face Book Works?	Mr. Vijender Yadav, Propalms Network Solutions, Pune	2013
20	Research Methodologies	Dr. Uday Khedkar, IIT Mumbai	2013
21	Windows API	Asif Baharinwala, PTC Software, Pune	2013
22	Early History of FORTRAN.	Dr. Uday Khedker IIT MUMBAI.	26th July 2013
23	Annotating, Indexing and Searching the Web Entities& Relationships.	Dr.Soumen Chakrabarti,	30th July 2013
24	PHP Workshop	Mr. Jayant V Desale, Technocorp Solution Pvt. Ltd	24th July to 26th July 2013
25	LINUX Workshop	Mr.Yogeshwar Shukla	5thSeptember to 7th September 13
26	Named Entity Recognition and Extraction Guest	Dr. Sachin Pawar, Researcher at	28th September 2013

	Lecture	TRDDC Pune.	
27	Robotics for Military Applications Guest Lecture	Mr.Alok Mukherjee, Scientist 'F', DRDO	3rd January 2014
28	Recent Trends in Research Work Guest Lecture	Dr. Aditya Abhyankar, Researcher at TRDDC Pune.	4th April 2014
29	Oracle and Software Engineering: IBM Workshop	Oracle Corporation Ltd.	24 June – 28 June 2014
30	Discovering the Science of Computer Science Guest Lecture	Dr. Maitreya Natu, Researcher at TRDDC Pune.	9th July 2014
31	QT Framework Workshop	Mr. Vikrant Chandekar	21st July to 23rd July 2014
32	Basics of MongoDB Guest Lecture	Mr. Gautam Rege from Josh Software	29th September 2014
33	Big Data and Hadoop Workshop	Bitwise Infosystems	8th and 9th January 2015
34	Cloud Computing Workshop	Mr. Paresh Sahasrabudhe	12th - 14th February 2015
35	CSI Faculty Development Program in association with AIT-CSI Student Chapter	Mr. Tushar Kute	28th February 2015
36	Emerging Trends on High Performance Computing or Super Computing Guest Lecture	Mr. Ryan D'Souza , Country manager, Hyperscale with HP India.	27th March 2015
37	Faculty Development Program on C# Revision and <a href="#">ASP.NET</a> Technology	Mr. Narendra	11,12,13 Jun 2015
38	Cloud Computing Guest Lecture	Dr.Umesh Bellur, IIT Bombay	27th July 2015

### 33. Teaching methods adopted to improve student learning

- Moodle is open source Learning software is used for making interaction with the students.
- All presentation slides, class notes and Paper solutions are uploaded

on Moodle.

- The various teaching methodology are adopted for teaching purpose. Recently EDVELOP by Microsoft is being implemented for e-learning.
- Students are also motivated to do on-line and value added courses.

#### **34. Participation in Institutional Social Responsibility (ISR) and Extension activities**

- Students and faculty members has completed the online Two week course on “Mentoring students in computer Programming” conducted by IIT Bombay.
- Student and faculty members participated in various project competitions like Avishkar by SPPU Pune.etc
- Students and faculty members participated in departmental workshops, conferences, seminars etc.
- Students are members of NSS club through which they are engaged in various extension activities.

#### **35. SWOC analysis of the department and Future plans**

##### **Strengths:**

- a. Strong Team Work
- b. Qualified and experienced faculty members
- c. Very Good academic result
- d. Very Good Faculty –student inter - communication
- e. Good IT infrastructure of the department.

##### **Weaknesses:**

- a. More research projects are targeted.
- b. Looking for more consultancy from Industry and Govt. Agencies.

##### **Opportunities:**

- a. Great opportunity for multidimensional development of department through these young and dynamic faculty members.
- b. Maximum student are staying in hostels, so various student related studies are possible to impart the knowledge to the best as well as average student.
- c. As the college is having interface to the defence sector, so it is a great opportunity to work in the research area which is beneficial to Indian Army.
- d. It is a great opportunity to start Interdisciplinary work as most of the students are staying in the hostels.

**Challenges:**

- a. Fetching funds from various funding agencies for constructing research lab and related research work is the challenge in front of the department.
- b. Obtaining consultancies from industries and Govt. agencies

**Future plans of the department:**

- a. Planning for maximum internship to the TE and BE students.
- b. Planning to produce more University Rank Holders at SE, TE and BE level through additional effort on teaching –learning process.
- c. Forming professional bodies like CSI and IEEE students chapter activities.

## EVALUATIVE REPORT OF MECHANICAL ENGINEERING DEPARTMENT

1. **Name of the Department:** Department of Mechanical Engineering

2. **Year of Establishment** 1994

3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)** - B E (Mechanical Engineering) , ME (Mechanical Design)

4. **Names of Interdisciplinary courses and the departments/units involved** : Nil

5. **Annual/ semester/choice based credit system (programme wise):** Semester

6. **Participation of the department in the courses offered by other departments**

S.No	Course	Department
1	Engg Graphics	Applied Science and General Engineering
2	Basic Mech.Engg	Applied Science and General Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : Nil

8. **Details of courses/programmes discontinued (if any) with reasons:** Nil

9. **Number of Teaching posts**

	Sanctioned	Filled
Professors	01	01
Associate Professors	04	04
Asst. Professors	12	12

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./ M.Phil. students guided for the last 4 years
Prof.Dr. J B Sankpal	PhD (Machine Design)	Prof. & HOD	Machine Design	28	03 (Ph D)
Mr. R B Patil	ME(Mech) Design Engg.	Associate Professor	Machine Design	27	NIL
Mr. R.S.Verma	M.Tech(Mech)	Associate Professor	Thermal & Fluid Engg	23	NIL
Mrs. D A Zanpure	M.Tech(Mech)	Associate Professor	Thermal Engg.	21	NIL
Mr. V.R.Kulkarni	M.E.(Phy Met)	Wksp.Supdt.	Metallurgy	21	NIL
Mr. J.D.Patil	ME(Mech) Heat Power	Asst. Prof	Heat Power	19	NIL
Mr. U.V.Awasarmol	ME(Mech) Heat Power	Asst. Prof	Heat Power	18	NIL
Mr. P.V.Dorlikar	M.Tech(design Of Mech.Eqpt.	Asst. Prof	Design of Mech.Eqpt	14	NIL
Mr. R.B.Gurav	ME(Mech) (Heat Power)	Asst. Prof	Heat Power	12	NIL
Mr. A.M.Gadade	ME (Mech) Design Engg.	Asst. Prof	Design Engg	12	NIL
Mr. Y V Patel	ME (Mech) Design Engg	Asst. Prof	Design Engg	15	NIL
Ms. P.M.Purohit	ME (Mech) (Heat Power)	Asst. Prof	Heat Power	9	NIL
Mr. S.M.Gaikwad	ME (Mech) (Heat Power)	Asst. Prof	Heat Power	9	02 (ME)
Mr. A.A.Ramgude	ME (Mech) Design Engg.	Asst. Prof	Design Engg	6	NIL
Mr. M. B. Phatangare	M.Tech (Mechanical)	Asst. Prof	Mechanical Engg	5	NIL
Mr. R S Godse	M.Tech (Energy Studies MBA(Operations)	Asst. Prof	Mechanical Engg	15	NIL
Mr. Akshay Kulkarni	M.Tech (Mechanical)	Asst. Prof	Mechanical Engg	0.3	NIL

**11. List of senior visiting faculty :**

- i) Dr. Chennamsetti Ramdas , CRC,RDE(E), Dighi, Pune
- ii) Lt.Gen. (Retd) D. Ajwani.

**12. Percentage of lectures delivered and practical classes handled (programme wise)by temporary faculty : 6.25%****13. Student -Teacher Ratio (programme wise)**

Year	Total number of students	Total number of faculty	Student-Teacher ratio
2011-12	180	14	12.85
2012-13	180	14	12.85
2013-14	180	15	12
2014-15	180	16	11.25

**14. Number of academic support staff (technical) and administrative staff; sanctioned and filled**

	Sanctioned	Filled
Academic Support Staff ( Technical)	06	06
Administrative	03	03

**15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.**

	Number
Ph D	1
PG	16
UG	-

**16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received**

S.No.	Name of Faculty	Title of Research Project	Funding Agency	Amount (Rs.)
1	Prof. S. M. Gaikwad	Experimental investigation of heat transfer and fluid flow analysis in different geometry such as straight/zigzag micro channel with and without Nano fluids	BCUD	1,50,000/-
2	Prof. R B Patil	Development and testing of polymer matrix composite material for enhanced Tribological and	BCUD	1,20,000/-

		mechanical properties		
3	Prof. J D Patil	Experimental study of oscillating flow heat transfer in mini and micro channel	BCUD	2,40,000/-

**17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received (last four years data)**

Sr. No.	Name of Faculty	Title of Research Project	Funding Agency	Amount (Rs.)
1	Prof R B Patil	Modernization of CAD Lab	AICTE-MODROB	9,00,000
2	Prof A M Gadade	Modernization of TOM DOM Lab	AICTE-MODROB	16,00,000

**18. Research Centre /facility recognized by the University -Nil**

**19. Publications: (last four years data)**

**a) Publication per faculty**

S No	Name of faculty	Number of Publications in last four years
1	Dr. J B Sankpal	9
2	Prof. R S Verma	1
3	Prof. J D Patil	13
4	Prof. U V Awasarmol	5
5	Prof. R B Gurav	10
6	Prof. A M Gadade	4
7	Prof. P M Purohit	7
8	Prof.S M Gaikwad	16
9	Prof. A A Ramgude	8

**b) Number of papers published in peer reviewed journals (national /international) by faculty and students**

S No	Name of faculty	Number of publications in peer reviewed journals (National )	Number of publications in peer reviewed journals (International )	Number of publications in international databases*	Av. Citation index	Av. impact factor	SNIP	SJR
1	Prof U V Awasarmol	-	1	1	-	2.54	1.92	1.4
2	Prof A M Gadade	-	1	1	-	0.68	1.2	0.9
	Prof A M Gadade	-	1	1	-	0.73	-	-
	Prof A M Gadade	-	1	1	-	1.19	-	-

\*Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

c) Monographs – Nil

d) Chapter in Books with ISBN/ISSN numbers with details of publishers

S. No.	Name of Book	Name of Author	ISBN/ISSN number	Publisher and year
01	Advances in Structural Engineering: Mechanics	Prof. A M Gadade	978-81-322-2189-0	Springer, 2015

e) Books edited with ISBN/ISSN numbers with details of publishers : Nil

f) Books with ISBN/ISSN numbers with details of publishers:-

S No	Name of Book	Name of author	ISBN/ISSN number	Publisher and year
1	Design of Machine elements-I	Prof R B Patil	978-93-5077-593-6	Techmax - 2015
2	Design of Machine elements-II	Prof R B Patil		Techmax - 2015
3	Dynamics of Machinery	Prof R B Patil	978-93-5244-063-0	Techmax - 2015

**g) h-index**

S No	Name of faculty	h index
1	Prof U V Awasarmol	2

**20. Areas of consultancy and income generated**

CFD software training: Rs.50,000/-

HT experimentation: Rs.8500/-

**21. Faculty as members in**

a) National committees b) International Committees c) Editorial Boards.... Nil

**22. Student projects**

Year	Percentage of students who have done in-house projects including inter departmental/programme	Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies
2011-12	53	47
2012-13	55	45
2013-14	64	36
2014-15	100	00

**23. Awards / Recognitions received by faculty and students :**

Sr. No.	Name of faculty/student	Award/recognition	Award /recognition received from
1.	SE & TE Students (24) & Prof. P V Dorlikar	Low cost effective design	BAJA SAE INDIA Year 2011
2.	SE & TE Students(23) & Prof. P V Dorlikar	CAE award	SUPRA SAE INDIA Year 2012
3.	SE & TE Students(23) & Prof. P V Dorlikar	Low cost effective design	BAJA SAE INDIA Year 2013
4.	Chandan Kumar	Patent on 'Automobile hybrid	Patent filed on 18 <sup>th</sup> July 2014

		braking system' (Techno Champ Competition organized by JOHN-DEERE)	
5.	Chandan Kumar	Patent on 'Zero turning radius vehicle using wireless steering and modified differential gear system' (Techno Champ Competition organized by JOHN-DEERE )	Patent filed on 18 <sup>th</sup> July 2014
6.	Vishal Dhaka	3 <sup>rd</sup> Position Event-Escalade (Robotics)	IIT Guwahati 4 to 7 <sup>th</sup> Sept. 2014
7.	Sumit Yadav Sudhanshu Sharma Suresh Choudhary Sooraj Kumar	Project selected in 'AVISHKAR-2014' Research Festival	SPPU-BCUD Pune
8.	Pawan Kumar	2 <sup>nd</sup> Prize in ALTAIR HYPERMESH Competition – National Level	ALTAIR 2015
9.	Lavpreet Sharma	COAS Best outgoing student Trophy ,2013-14	AIT Pune
10.	Lavpreet Sharma	University Rank -1 TE MECH-2012- 13	Savitraibai Phule Pune University
11.	Lavpreet Sharma	University Rank - 10 BE MECH-2013- 14	Savitraibai Phule Pune University
12.	Nikhil Ghorpade	University Rank -6 TE MECH-2013- 14	Savitraibai Phule Pune University
13.	Rahul Ranjan	University Rank -7 TE MECH-2012- 13	Savitraibai Phule Pune University
14.	Rahul Ranjan	University Rank -5 TE MECH-2013- 14	Savitraibai Phule Pune University
15.	Prof. D A Zanpure	Best Result Subject-Applied Thermodynamics, 2013-14	AIT, Pune

16.	Prof. R B Patil	Best Result Subject-Machine Design, 2012-13	AIT, Pune
17.	Prof. Y V Patel	Best Result Subject- Machine Design, 2012-13	AIT, Pune
18.	Prof. R B Gurav	Best Teacher 2012- 13	AIT, Pune
19.	Prof. S M Gaikwad	Best Teacher 2013- 14	AIT, Pune

#### 24. List of eminent academicians and scientists / visitors to the department

S No.	Name of visitor	Date
1.	Mr. Milind Kulkarni, Node Element Consultants	26 <sup>th</sup> June 2014
2.	Mr. N. Shelke, Business Head, CAD/CAMGuru, Pune.	28 <sup>th</sup> June 2014
3.	Mr. Ameya Khambete, Head (Training), CAD/CAMGuru, Pune.	28 <sup>th</sup> June 2014
4.	Mr. Pawan Yadav, Sr. Manager, FIAPL, Mahalunge, Pune	25 <sup>th</sup> July 2014
5.	Mr. Devdutta Chandavarkar, Vice President, Mercedes-Benz India Private Limited	1 <sup>st</sup> Aug. 2014
6.	Mr. Nachiket Phadke, ELENO Engg. Learning Center, Pune	11 <sup>th</sup> Aug. 2014
7.	Mr. B. H. Shrikanth	25 <sup>th</sup> Aug. 2014
8.	Mr. Shashi Thakur	28 <sup>th</sup> Aug. 2014
9.	Dr. Hamir Ganla	18 <sup>th</sup> Sept. 2014
10	Mr. Adnan Khan, Manager, Zest Technologies, Pune	16 <sup>th</sup> Jan. 2015
11	Dr. Himanshu Shekhar, Jt. Director, HEMRL(DRDO), Pune	3 <sup>rd</sup> March 2015
12	Dr. Rahul Harshe Scientists 'E' CRC, RDE (E) Dighi, Pune.	15 <sup>th</sup> April 2015
13	Dr. Ramdas Chennamsetti CRC, RDE (E) Dighi, Pune.	15 <sup>th</sup> April 2015
14	Dr. Guruprasad P J Asst. Professor, AED, IIT Bombay.	16 <sup>th</sup> April 2015
15	Dr. Mira Mitra Asso, Professor, AED, IIT Bombay	16 <sup>th</sup> April 2015

16	Mr. Apoorv Bapat, Specialist, Team Leader (FEA), Altair, Pune	10 <sup>th</sup> March 2015
17	Mr. Abhay Pendse, Asstt. V.P., Lawkim Motors Group, Godrej & Boyce, Shirwal, Pune	17 <sup>th</sup> March 2015
18	Mr. Nilkanth G Inamdar, (Ex) GM, Kirloskar Brothers Ltd., Pune & Mr. Upendra Kulkarni, (Ex) GM, Tata Motors, Pune	13 <sup>th</sup> Feb. 2015
19	Mr Shahariyar Hussain, Sr Vice President, Godrej Boyce Manufacturing Co Ltd.	16 <sup>th</sup> Dec.2013
20	Mrs. Surekha K S, Associate Professor (E & TC), Army Institute of Technology, Pune	21, 22 & 24 <sup>th</sup> Jan. 2014
21	Mr. Arvind Paranjpe, Asstt. GM, TATA Power Co., Trombay (Chembur)	3 <sup>rd</sup> Feb. 2014
22	Prof. Sunil Deshpande, MIT COE., Pune	5 <sup>th</sup> March 2014
23	Mr Rahul Deshpande, Asst Manager, Reliability Maintenance Institute, SKF (I) Pvt Ltd, Chinchwad, Pune	25 <sup>th</sup> July 2013
24	Mr. Abhijeet Chinchorkar, Manager, High Performance Global Consultants Pvt. Ltd., Baner, Pune	26 <sup>th</sup> Feb. 2014
25	1. Mr. Yashwant Sakhardande – Sr. Vice president – D&E- ThyssenKrupp Industries India. 2. Mr. Nitin Gawhane Head- Learning & Development, ThyssenKrupp Industries India.	08 <sup>th</sup> March 2014
26	Mr. Santosh Mishra Ex-Student (Mechanical)	22 <sup>nd</sup> Aug. 2012
27	Dr. Ramadass Chenamsetti, R&D Engrs, Dighi, Pune	25 <sup>th</sup> Aug. 2012
28	Col. R.S.Chhetri Army	13 <sup>th</sup> Sept. 2012
29	Mr. Neeraj Tiwari Head, Transmission & Trimming, FIAT India Automobiles Ltd., Ranjangaon, Pune	22 <sup>nd</sup> Sept.2012
30	Lt. Col. Sharat Laskar (Retd) Samundra Inst. Of Maritime Studies, Mumbai-Pune Highway, Lonavala.	27 <sup>th</sup> Sept. 2012
31	Mr. Sunil P Divekar Cummins COE., Pune	21 <sup>st</sup> March 2013

**25. Seminars/ Conferences/Workshops organized & the source of funding (last four years data)**

a) National

b) International

S No	Name of Conference/Workshop	National/International	Funding details
1	One day workshop on syllabus revision of Design oriented subjects,2012	National	University of Pune and AIT
2	Mechanics of Laminated Composite Structures (MLCS-2015) April-2015	National	AIT

**26. Student profile programme/course wise: Name of the Course/programme (refer question no. 4)**

Year	Applications received For All Branches	Selected	Enrolled		Pass percentage %
			*M	*F	
2011-12	5829	60	57	03	81.66
2012-13	6175	60	58	02	81.66
2013-14	5913	60	57	03	88.33
2014-15	6122	60	60	0	93.33

\*M = Male \*F = Female

**27. Diversity of Students**

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
BE Mechanical	3%	97%	Nil

**28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc**

Year	Number of students
2011-12	-
2012-13	2 (GATE)
2013-14	6 (GATE)
2014-15	15 (GATE) and NAVY- 1, UES -1

## 29. Student progression

Student progression	Against % enrolled			
	2011-12	2012-13	2013-14	2014-15
UG to PG	2	4	4	Data not available, Results were announced recently.
PG to M.Phil.	1	Nil	Nil	Nil
PG to Ph.D.				
Ph.D. to Post-Doctoral				
Employed Campus selection	89	60	89	86
Other than campus recruitment	-	-	-	-
Entrepreneurship/Self-employment				

## 30. Details of Infrastructural facilities

- a) Library
- b) Internet facilities for Staff & Students of 100mbps
- c) Class rooms with ICT facility
- d) Research laboratory- CAE Lab
- e) Laboratories -12

Name of Lab	List of Major Equipments
CAD Lab	<ol style="list-style-type: none"> <li>1. Server – Intel Xeon, HP Proliant ML 350</li> <li>2. Workstation – P IV , HP (24)</li> <li>3. PC – P IV (HP/IBM/Lenovo) (41)</li> <li>4. Plotter – HP Designjet 430 Mono</li> <li>5. Printer (Inkjet / Laser)</li> <li>6. Scanner – HP</li> <li>7. UPS–online 7.5 kVA,</li> </ol>
MQC Lab	<ol style="list-style-type: none"> <li>1. Profile projector</li> <li>2. Tool makers microscope</li> <li>3. Slip gauge box(93 pcs)</li> <li>4. Fit box</li> </ol>

	<ol style="list-style-type: none"> <li>5. Floating carriage diameter Measuring machine</li> <li>6. Baker twin channel electronic comparator</li> <li>7. Surface plate (2 No) 63 x 63cms</li> <li>8. Gear rolling tester</li> <li>9. Bevel gear attachment</li> <li>10. Bevel gear attachment</li> <li>11. Baker electronic axial probe Model 2920</li> <li>12. Comparator (1 micron accuracy)</li> <li>13. Monochromatic light unit</li> <li>14. Magnetic Hardened V block set</li> </ol>
Thermal Lab	<ol style="list-style-type: none"> <li>1. Two stage Air Compressor</li> <li>2. Four stroke, four cylinder petrol engine test rig.</li> <li>3. Four stroke single cylinder Diesel engine test rig.</li> <li>4. Fortinson's Barometer</li> <li>5. Cut section of multi-cylinder diesel engine (Indica)</li> <li>6. Cut section model of four stroke four cylinder petrol engine</li> <li>7. Cut section model of two stroke petrol scooter engine.</li> <li>8. Cut section model of Diesel engine</li> <li>9. Transmission system for PAL car ( Cut model)</li> <li>10. VCR Diesel Engine</li> <li>11. Ice Plant Tutor</li> <li>12. Mini Air conditioner plant tutor</li> <li>13. Bomb Calorimeter</li> </ol>
Heat Transfer Lab	<ol style="list-style-type: none"> <li>1. Thermal Conductivity of Insulating Powder</li> <li>2. Critical Heat Flux Apparatus</li> <li>3. Heat Conduction From Composite Wall</li> <li>4. Thermo Couple Calibration Set –up</li> <li>5. Stefan Boltzman Apparatus</li> <li>6. Thermal conductivity of Metal rod set up</li> <li>7. Natural convection test rig Forced convection apparatus</li> <li>8. Forced convection Pin fin apparatus</li> <li>9. Emissivity measurement apparatus</li> <li>10. Heat exchanger set up (Tube in tube type)</li> </ol>
TOM-DOM Lab	<ol style="list-style-type: none"> <li>1. Test Rig for Determination of Torque Capacity of Dynamometer</li> <li>2. Test Rig for Study and Measurement of Slip in Belt.</li> <li>3. Test Rig for Study of Epicyclic Gear Train.</li> <li>4. Wear &amp; Friction Monitoring Set-Up with DAS</li> <li>5. Single Channel FFT Analyser</li> <li>6. Vib-Lab Set-Up</li> <li>7. Clutch Linear Test Rig</li> <li>8. Whirling of Shaft Apparatus</li> <li>9. Static &amp; Dynamic Balancing Apparatus</li> <li>10. Universal Governor Apparatus.</li> <li>11. Apparatus for Generation of Gear Tooth Profile</li> <li>12. Multi Channel FFT Analyser</li> </ol>
Metallurgy Lab	<ol style="list-style-type: none"> <li>1. Muffle Furnace with gas passing arrangement &amp;</li> </ol>

	<ul style="list-style-type: none"> <li>support stand</li> <li>2. Pendulum Impact Testing Machine</li> <li>3. Magnetic Particle Crack Detecting Machine</li> <li>4. Single Disc Polishing Machine</li> <li>5. Abrasive Belt Grinder</li> <li>6. Jominy End - Quench Apparatus</li> <li>7. Projection Microscope with CCTV Attachment</li> <li>8. Metallurgical Monocular Microscope</li> <li>9. Universal Testing Machine</li> <li>10. Universal Testing Machine</li> <li>11. Rockwell Cum Brinell hardness Testing Machine</li> <li>12. Vickers hardness Testing Machine</li> </ul>
Workshop	<ul style="list-style-type: none"> <li>1. Radial drilling Machine</li> <li>2. PSG Lathe (12 No)</li> <li>3. Surface Grinding Machine</li> <li>4. Power Press 20T(MTS)</li> <li>5. HMT Lathe (2No)</li> <li>6. Universal Milling Machine</li> <li>7. MTS Shaping Machine(BFW)</li> <li>8. Hydraulic Power Saw Machine</li> <li>9. Motorised Centrifugal Blower</li> <li>10. Plastic Moulding Machine</li> <li>11. Surface cum Thickness Planer Machine</li> <li>12. Circular saw Machine</li> <li>13. Wood Turning Lathe(2No)</li> <li>14. Vertical band saw Machine</li> <li>15. Coke Fired Pit Furnace</li> <li>16. Black Smith Hearth(4No)</li> <li>17. Edge Folding Machine</li> <li>18. Arc Welding Rectifier 400 A.</li> <li>19. Arc welding Transformer 200 A single phase</li> <li>20. Bench Grinder 10"</li> <li>21. Portable Grinding Machine</li> <li>22. Bench drilling Machine</li> <li>23. Bench Drilling Machine</li> <li>24. Drilling Machine (20mm)</li> <li>25. Drilling Machine (13mm)</li> <li>26. Pipe Bending Machine</li> <li>27. Abrasive wheel cutter</li> </ul>
Fluid Engg. Lab.	<ul style="list-style-type: none"> <li>1. Muffle Furnace with gas passing arrangement &amp; support stand</li> <li>2. Francis Turbine Test Rig</li> <li>3. Gear Pump Test Rig</li> <li>4. Centrifugal Pump</li> <li>5. Pelton Wheel Test Rig</li> <li>6. Advanced Pneumatic Trainer</li> <li>7. Advance Hydraulic Trainer (Rexroth Make)</li> <li>8. Metacentric Height of Ship Model Apparatus</li> <li>9. Venturimeter And Minor Losses Apparatus</li> <li>10. Heleshaws Apparatus</li> </ul>

	11. Pipe Friction Apparatus 12. Redwood Viscometer 13. Bernoulli's Apparatus
Mechatronics Lab	1. PLC 2. PID Control System with software 3. X-Y Position Controller 4. LVDT
CAE Lab	1. CNC LATHE 2. PCs- 14 3. Software: 4. CATIA V6 : 20 users 5. ABAQUS 6.13 : 20 users (Limited), 1 user (Research)

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	Total Number of students receiving financial assistance
2011-12	26
2012-13	59
2013-14	74
2014-15	60

**32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts (last four years data)**

S No.	Nature of program	Name of external expert	Date
1.	2 Days Workshop - Mechanics of Laminated Composite Structures	Dr.Rahul Harshe Scientists "E" CRC,RDE(E) Dighi,Pune.  Dr.Ramdas Chennamsetti CRC,RDE(E) Dighi,Pune.  Dr. Guruprasad P J Asst. Professor, AED ,IIT Bombay.  Dr. Mira Mitra Asso,Professor, AED,IIT Bombay	15 and 16 April 2015
2.	Computational Fluid Dynamics (CFD) – An	Mr. Milind Kulkarni, Node Element	26 <sup>th</sup> June 2014

	Overview	Consultants	
3.	Opportunities in CAE	Mr. N. Shelke, Business Head, CAD/CAMGuru, Pune	28 <sup>th</sup> June 2014
4.	Automotive Seating system design	Mr. Ameya Khambete, Head (Training), CAD/CAMGuru,Pune.	28 <sup>th</sup> June 2014
5.	Motivational talk for FE (Mech) freshers	Mr. Pawan Yadav, Sr. Manager, FIAPL, Mahalunge, Pune	25 <sup>th</sup> July 2014
6.	Advances in Automotive Technology	Mr. Devdutta Chandavarkar, Vice President, Mercedes-Benz India Private Limited	1 <sup>st</sup> Aug. 2014
7.	FEA for Crash Analysis	Mr. Nachiket Phadke, ELENO Engg. Learning Center, Pune	11 <sup>th</sup> Aug. 2014
8.	Ethanol – a renewable & sustainable auto-fuel	Mr. B. H. Shrikanth	25 <sup>th</sup> Aug. 2014
9.	Expectations of Industry - a motivational talk	Mr. Shashi Thakur	28 <sup>th</sup> Aug. 2014
10.	Vipassana	Dr. Hamir Ganla	18 <sup>th</sup> Sept.2014
11.	Design process in Automobile Industry	Mr. Adnan Khan, Manager, Zest Technologies, Pune	16 <sup>th</sup> Jan. 2015
12.	Engg. Challenges in Indigenous Rocket development	Dr. Himanshu Shekhar, Jt.Director, HEMRL(DRDO),Pune	3 <sup>rd</sup> March 2015
13.	FEA Techniques in Automobile Industry	Mr. Apoorv Bapat, Specialist, Team Leader (FEA), Altair, Pune	10 <sup>th</sup> March 2015
14.	Engg. Challenges in manufacturing sector	Mr. Abhay Pendse, Asstt. V.P., Lawkim Motors Group, Godrej & Boyce, Shirwal, Pune	17 <sup>th</sup> March 2015
15.	Statistical Process Control Product life cycle Management	Mr. Nilkanth Inamdar, (Ex) GM, KirloskarBrothers Ltd., Pune & Mr. Upendra Kulkarni, (Ex) GM, Tata Motors, Pune	13 <sup>th</sup> Feb. 2015

16.	Microcontroller & Applications	Mrs. Surekha K S, Associate Professor (E & TC), Army Institute of Technology, Pune	21, 22 & 24 <sup>th</sup> Jan. 2014
17.	Thermal Power Plants in India	Mr. Arvind Paranjpe, Asstt. GM, TATA Power Co., Trombay (Chembur)	3 <sup>rd</sup> Feb. 2014
18.	Advanced Techniques of Corrosion Prevention.	Prof. Sunil Deshpande, MIT COE., Pune	5 <sup>th</sup> March 2014
19.	Recent Trends in Manufacturing	Mr Shahariyar Hussain, Sr Vice President, Godrej Boyce Manufacturing Co Ltd.	16 <sup>th</sup> Dec. 2013
20.	Microcontroller & Applications	Mrs. Surekha K S, Associate Professor (E & TC), Army Institute of Technology, Pune	21, 22 & 24 <sup>th</sup> Jan. 2014
21.	Thermal Power Plants in India	Mr. Arvind Paranjpe, Asstt. GM, TATA Power Co., Trombay (Chembur)	3 <sup>rd</sup> Feb. 2014
22.	Advanced Techniques of Corrosion Prevention.	Prof. Sunil Deshpande, MIT COE., Pune	5 <sup>th</sup> March 2014
23.	Industrial Bearings	Mr Rahul Deshpande, Asst Manager, Reliability Maintenance Institute, SKF (I) Pvt Ltd, Chinchwad, Pune	25 <sup>th</sup> July 2013
24.	Design Failure Mode Analysis, R & D etc.	Mr. Abhijeet Chinchorkar, Manager, High Performance Global Consultants Pvt. Ltd., Baner, Pune	26 <sup>th</sup> Feb.2014
25.	1.Theory & Practice of Design & Engg.; 2.Value Engg.- R & D Tool for Product Design & Development	Mr. Yashwant Sakhardande Sr. Vice president – R&DE- ThyssenKrupp Industries India. Mr. Nitin Gawhane Head- Learning & Development, ThyssenKrupp Industries India.	08 <sup>th</sup> Mar. 2014
26.	Career Opportunities after IAS & Preparation	Mr. Santosh Mishra	22 <sup>nd</sup> Aug.2012

	pfor Competitive exams		
27.	Structural Composites	Dr.Ramadas Chenamsetti	25 <sup>th</sup> Aug.2012
28.	Career Opportunities in N.C.C	Col. R.S.Chhetri	13 <sup>th</sup> Sept.2012
29.	Gear Transmission & Manufacturing	Mr. Neeraj Tiwari	22 <sup>nd</sup> Sept. 2012
30.	Careers in Merchant Navy	Lt. Col. Sharat Laskar (Retd)	27 <sup>th</sup> Sept. 2012
31.	Material Selection & Advanced heat treatment	Mr. Sunil P Divekar	21 <sup>th</sup> Mar. 2013

### 33. Teaching methods adopted to improve student learning

- a) Power Point presentation
- b) Internet
- c) NPTEL videos from IIT
- d) Moodle based lesson plan, lab manual and syllabus

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Students are members of NSS club, which is responsible for extension activities.

### 35. SWOC analysis of the department and Future plans:

#### Strengths :

- Experienced and dedicated faculties with high level of retention
- Good Infrastructure
- Quality of student's intake is directly through JEE merits.
- 100% Hostel facility
- Good Placements

#### Weakness:

- Not much flexibility in curriculum development.

#### Opportunity:

- In Research (Research Institutes like DIAT,DRDO and Manufacturing sector like Auto Hub is available in and around Pune region)

#### Challenges:

- To establish Ph.D. Research centre/ Center of excellence in Mechanical Engineering.

#### Future Plan

- To develop the department as a Research centre and Centre of Excellence.

**EVALUATIVE REPORT OF APPLIED SCIENCE AND GENERAL  
ENGINEERING DEPARTMENT (ASGE)**

1. **Name of the department** : Applied Science and General Engineering (ASGE)
2. **Year of Establishment** : 1994
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)** :NA
4. **Names of Interdisciplinary courses and the departments involved:**  
Nil
5. **Annual/ semester/choice based credit system** : Semester
6. **Participation of the department in the courses offered by other departments**

<b>S.No.</b>	<b>Course</b>	<b>Department</b>
1	Engineering Mathematics -III	Computer, Mechanical, E&TC, IT
2	Electrical technology	Mechanical
3	Communication skills	Computer, Mechanical, E&TC, IT

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.** : Nil
8. **Details of courses/programmes discontinued (if any) with reasons** : Nil
9. **Number of Teaching posts**

	<b>Sanctioned</b>	<b>Filled</b>
Professors	Nil	Nil
Associate Professors	02	01
Asst. Professors	11	12

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./M. Phil Students guided for the last 4 years
Dr Mrs. S Marathe	PhD (Chemistry)	Associate Prof & HOD	Polymer Chemistry	20	Nil
Ms. Mridula Chandola	M Phil (Physics)	Asst. Prof.	Physics	19	Nil
Mr. A K Singh	MSc (Maths) NET qualified	Asst. Prof.	Mathematics	20	Nil
Ms. Anita Ahire	MTech(Civil)	Asst. Prof.	Construction Management	06	Nil
Mr. Ganesh Munde	MSc (Maths) NET qualified	Asst. Prof.	Mathematics	05	Nil
Dr(Mrs.) Seema Tiwari	PhD (Chemistry)	Asst. Prof.	Polymers	13	Nil
Lt. Col.(Retd) Sanjay Karodpati	M E (Civil)	Asst. Prof.	Construction Management	29	Nil
Ms. Swati Kulkarni	M.Tech(Civil)	Asst. Prof.	Structural Engineering	08	Nil
Mr. P.Chikte	M.Sc.(Phy), NET qualified	Asst. Prof.	Astronomy	02	Nil
Mr.V.Hivrle	M.Tech (Mathematics)	Asst. Prof.	Industrial Mathematics and computer applications	01	Nil
Ms. D. Parashar	M.Tech (Electrical)	Asst. Prof.	Power Systems	04	Nil
Ms. Preeti Warriar	M.Tech (Power Electronics)	Asst. Prof.	Power Electronics	10	Nil
Ms. Nilanjana Ghosh	M.A. (English)	Asst. Prof.	English, Soft skills training	16	Nil

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : 32%

## 13. Student -Teacher Ratio (programme wise)

Year	Total number of students	Total number of faculty	Student-Teacher ratio
2011-12	300	12+08(other departments)	15:01
2012-13	300	12+08(other departments)	15:01
2013-14	300	12+08(other departments)	15:01
2014-15	300	12+08(other departments)	15:01

## 14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

	Sanctioned	Filled
Academic Support Staff ( Technical)	04	04
Administrative	02	02

## 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

	Number
Ph D	02
M Phil	01
PG	10
UG	-

## 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

S No	Name of Faculty	Title of Research Project	Funding Agency	Amount (Rs. in lacs)
1	Dr Seema Tiwari	Synthesis and characterization of biodegradable polymeric nanocomposites for anti-cancer drug delivery systems	BCUD, SPPU	1.8
2	Ms Swati Kulkarni	Seismic resistant steel beam to column joints	GUJCOST/ DST	4.3

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received (last four years data)

S No	Name of Faculty	Title of Research Project	Funding Agency	Amount (Rs. in lacs)
1	Ms Swati Kulkarni	Seismic resistant steel beam to column joints	GUJCOST/ DST	4.30
2	Dr Seema Tiwari	Synthesis and characterization of biodegradable polymeric nanocomposites for anti-cancer drug delivery systems	BCUD, SPPU	1.8
3	Dr P B Karandikar	Development of Ultracapacitor	Madhav Capacitors	2.00
4	Dr P B Karandikar	Ultracapacitor for two wheelers	BCUD, SPPU	2.00
5	Dr P B Karandikar	Innovative Earthing materials	BCUD, SPPU	1.50

18. Research Centre /facility recognized by the University : Nil

19. Publications: (last four years data)

a) Publication per faculty:

S No	Name of faculty	Number of Publications in last four years ( National)	Number of Publications in last four years ( International)
1	Dr P B Karandikar	38	32
2	Ms. Swati Kulkarni	14	06
3	Dr(Mrs.) Seema Tiwari	05	02
4	Dr(Mrs.) Sujata Marathe	01	01
5	Lt. Col.(Retd) Sanjay Karodpati	02	-
6	Ms Mridula Chandola	01	-

**b) Number of papers published in peer reviewed journals (national / international) by faculty and students**

S No	Name of faculty	Number of publications in peer reviewed journals (National )	Number of publications in peer reviewed journals (International )	Number of publications in international databases*	Av. Citation index	Av. impact factor	SNIP	SJR
1	Dr P B Karandikar	10	04	08	0.5	0.06	0.13	0.1
2	Ms S A Kulkarni	01	02	05	0.69	0.08	0.15	0.14

\*Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)

**d) Chapter in Books with ISBN/ISSN numbers with details of publishers**

S No	Name of Book	Name of author	ISBN/ISSN number	Publisher and year
1	Advances in Structural Engineering	Kulkarni S A	978-81-322-2189-0	Springer, 2014

**e) Books edited with ISBN/ISSN numbers with details of publishers : Nil**

**f) Books with ISBN/ISSN numbers with details of publishers:- Nil**

**g) h-index**

S No	Name of faculty	h index
1	Dr Sujata Marathe	3
2	Dr P B Karandikar	4
3	Dr Seema Tiwari	4
4	Ms Swati Kulkarni	2
5	Ms Mridula Chandola	1

**20.Areas of consultancy and income generated : Nil**

**21.Faculty as members in a)National committees b) International Committees c) Editorial Boards....**

Nil

**22. Student projects**

<b>Year</b>	<b>Percentage of students who have done in-house projects including inter departmental/programme</b>	<b>Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies</b>
2011-12	05	01
2012-13	04	00
2013-14	06	00
2014-15	13	02

**23. Awards / Recognitions received by faculty and students**

<b>S No.</b>	<b>Name of faculty/student</b>	<b>Award/recognition</b>	<b>Award /recognition received from</b>
1	Ms Swati Kulkarni	Ist position (Paper presentation)	Institution of Engineers, Pune
2	Ms Swati Kulkarni	Best Result	AIT
3	Ms Swati Kulkarni	Best Teacher	AIT
4	Mr A K Singh	Best Result	AIT
5	Mr Ganesh Mundhe	Best Result	AIT
6	Ms Anita Ahire	Best Result	AIT
7	Lt Col (Retd.) S Karodpati	Best Result	AIT

**24. List of eminent academicians and scientists / visitors to the department**

<b>S No.</b>	<b>Name of visitor</b>	<b>Date</b>
1	Dr Aditya Abhyankar, Dean, Dept. of Technology, SPPU	20 July 2015
2	Mr Pawan Yadav, Manager, FIAT, India, Author and Alumnus AIT	20 July 2015
3	Mr Pravin Nikam, UN Global Youth Ambassador	26 July 2014

**25. Seminars/ Conferences/Workshops organized & the source of funding (last four years data)**

- a) National - Nil
- b) International - Nil

## 26. Student profile programme/course wise:

Year	Applications received	Selected	Enrolled		Pass percentage (At end of first year)
			*M	*F	
2011-12	6122	300	258	40	86.89
2012-13	5458	300	256	37	93.15
2013-14	4128	300	238	55	93.86
2014-15	4112	300	250	43	89.69

\*M = Male \*F = Female

## 27. Diversity of Students NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? NA

## 29. Student progression : NA

## 30. Details of Infrastructural facilities

- Library - Nil
- Internet facilities for Staff & Students- All faculty have PC connected to internet. Internet to students available in FE Computer Centre. All class rooms are enabled with wi-fi facility.
- Class rooms with ICT facility - 04 classrooms.  
All are equipped with PC, DLP projector, LAN and internet connectivity.
- Laboratories – 05

Name of Lab	Major equipments
Physics lab	Spectrometer Cathode Ray Oscilloscope Ultrasonic Interferometer Signal generator Solar cell apparatus Energy Gap in Semiconductor Fibre optics Communication Kit Newton ring setup He-Ne Laser Michelson Interferometer Hall Effect Set up Laurentz Half shade Polarimeter Refractometer Compound Microscope

Chemistry Lab	<p>p.H meter  Single Pan Balance (Dhona make)  Photo Electric Colorimeter  Electronic weighing machine(Essae make)  Universal Oven  Vacuum Pump  Distilled Water Plant  Battery Eliminator 12 V  Hot Plate  Muffle Furnace  Vacuum Oven  Copper Voltmeter  Digital Conductivity meter</p>
BCEE lab	<p>Electronic weighing balance  Fly wheel  Universal Four Table  Printer  Belt Friction  Compound wheel and axle  Beam reaction  Mass Momentum  Pulley blocks  Torsional Pendulum  Compound pendulum  Conservation of Mass Apparatus  Verification of Law of Polygon of Forces  Gyroscope</p>
BEE lab	<p>1<math>\Phi</math> Transformer, Lab model with binding post, 230V/115V,1.15KVA,50Hz.  1<math>\Phi</math> Transformer, 1KVA, 230V/115V, 50Hz, with tapping at 86.6% &amp; 50% on both primary &amp; secondary side.  D.C Shunt Motor,220V,2.2 kW,12A,1500 RPM  D.C Series Motor,3H.P,2.2kW,220V,1500 RPM  D.C Shunt Motor # D.C COMP.GENERATOR.  D.C Shunt Motor, 3H.P, 2.2 kW, 220V, 1500 RPM, with 3-point starter. m/c no.9601.10122  D.C Comp. Generator, 1.5kW, 220V, 1500 RPM, Self fan cooled, coupled to each other by flexible coupling. m/c no.9601.1548  D.C Shunt Generator# 3Ph Induction Motor.  D.C Shunt Generator, 3kW, 220V, 1500 RPM, Self fan cooled. m/c no.G1215.9601</p>

BEE lab	<p>3Ph Induction Motor,5H.P./3.7kW,Squirrel cage IM,415V,50Hz,1440rpm,Y-Δ connected, with D.O.L starter. m/c no.R1 238924</p> <p>D.C Shunt Motor # Alternator.</p> <p>D.C Shunt Motor, 5H.P, 3.7kW, 220V, 1500 RPM, self fan cooled protection with 3-point starter. m/c no.4216.9512</p> <p>Alternator, 3Ph, 3kVA, 415V, 50Hz, 1500RPM, 4-Pole, self fan cooled. m/c no.AA9.9512</p> <p>Auto Synchronous Motor # D.C Shunt Generator.</p> <p>Auto Synchronous Motor,3H.P/3.5kVA,415V,3Ph, 50Hz, 1500RPM, auto induction start salient pole type fr.size-QC-132-140,seperately excited 220V D.C. m/c no.SM47.9602</p> <p>D.C Shunt Generator, 2.2kW,220V,1500rpm fan cooled, fabricated base plate, M/c no.G1216.9602</p> <p>Rectifier Unit D.C power supply rectifier unit (Kosi controls)</p> <p>Earth Tester (0-3-10-15Ω) Shanti make.</p> <p>R-L-C Series Circuit.</p>
FE Computer Center	50 PCs (HP Intel I <sub>5</sub> 4570 CPU 4 GB RAM)

**31. Number of students receiving financial assistance from college, university, government or other agencies**

Year	Number of students receiving financial assistance
2011-12	02
2012-13	73
2013-14	78
2014-15	79

**32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts (last four years data)**

S. No.	Details of lecture	Date	Audience
1	“Will Power to Excel” by Mr. Vishal Kaushal	26 July 2012	First year students
2	“Art of Re-living” by Prof. R M Jalnekar	31 July 2012	First year students
3	“Mind Mechanics” By Mr Dhruv Agarwal and Ms Neha Agarwal	20 July 2013	First year students
4	“Power of Habits” by Dr Keshavanand Das	26 July 2014	First year students
5	“Innovating Education: Empowering Youth” by Pravin Nikam	26 July 2014	First year students

6	“Seven Habits of Highly Effective People – Stephen Covey” by Col. Amit Dangwal	28 Jan 2014	First year students
7	“Health issues faced by hostellers” by Maj. Kuntal and Maj. Shruti	20 July 2015	First year students
8	“Personality Development” by Mr Pawan Yadav	20 July 2015	First year students
9	“Study regarding tobacco and drug abuse” by Col. Raj Kumar	22 July 2015	First and second year students

### 33. Teaching methods adopted to improve student learning

- Interactive classes are being conducted
- ICT methods along with traditional chalk and board approach.
- Lecture notes and presentation are uploaded on MOODLE.
- University question papers with marking scheme, question bank, solved/model University answer papers uploaded on MOODLE.
- Surprise tests, quizzes, class tests, mock online tests are conducted.

### 34. Participation in Institutional Social Responsibility (ISR) and Extension activities

A large number of our students are members of NSS club, which is responsible for extension activities.

### 35. SWOC analysis of the department and Future plans

#### Strengths

- Good number of both qualified and experienced and young and dynamic faculty.
- Meritorious student intake.
- All India background of students.
- Very good results.

#### Weakness

- Less number of research projects.
- Lack of consultancy.

#### Opportunities

- More research funds through UGC 2 (f) and 12 (B) can be obtained.
- Better teaching –learning using NKN connectivity.
- Start consultancies.

#### Challenges

- Communication skills weak for some students.
- Multidisciplinary research.

#### Future plans

- Achieve 100% results with more distinctions and University ranks.
- More research projects.

## POST-ACCREDITATION INITIATIVES

Based on recommendation for quality improvement and enhancement given by the peer team during the last accreditation, the institute has taken a large number of post accreditation initiatives, to overcome the deficiencies as well as further enhance and build on our inherent strengths. Some of the major observations of the peer team and actions taken by institute are shown below:-

	Remarks of Peer Team	Action Taken
	<b>2.1 Curricular Aspects</b>	
2.1.2	Limited flexibility within the program by way of electives.	As per university curriculum open electives are now offered. Compared to the last accreditation, more number of MoUs by various departments (total 14 MOUs ) have resulted in introduction of value added programs, training for students and student projects and internships.
	<b>2.2 Teaching Learning Process</b>	
2.2.3	Efforts for exposure to recent developments in respective subjects needs more attention.	To increase exposure of students to recent developments following measures have been taken:- <ul style="list-style-type: none"> <li>- Guest lectures by subject experts.</li> <li>- Value added evening courses.</li> <li>- Student internships.</li> <li>- Technical club activities.</li> <li>- Introducing Mini projects and Project competitions.</li> </ul>
	Fully developed and well stocked departmental libraries are needed	Every Department is having adequate number of books in Department library as well as access to e journals via internet.
	ICT in teaching learning process could be more effective	All class rooms are equipped with overhead projector and enabled with Wi-Fi facility. I-pad and interactive white board are also used. Study material is made available to students on internet through MOODLE – e-learning platform. Mock online tests and quizzes are conducted on MOODLE. To make it more effective institute plans

		to shift to the cloud based "Edvelop" platform.
	Higher number of expert lectures need to be arranged	Higher number of expert lecturers organized at institute and departmental level. In the last four years more than 200 guest lectures/seminars and workshops were organized by experts from industry and academics.
2.2.4	Teacher Quality Only one Ph D and less number of post graduate teachers in engineering departments.	After the last accreditation, faculty members were motivated to pursue Ph D and at present 08 faculty members with PhD qualification are working in institute, accounting for 10% of teaching faculty. During the last accreditation this figure was only about 3%. This is a significant increase from last assessment. 30 faculty members are pursuing PhD, accounting for 38% of total faculty. During the last assessment this number was only 02 (3%). This again is a significant increase from last assessment. All the faculty members have post graduate qualification and are undergoing FDPs and STTPs regularly.
	A much higher number of professors and assistant professors are required	One Professor and good number of Associate Professors are now available in each department.
	Teachers need to be further encouraged to enhance their quality and qualification.	Ph D policy was introduced to motivate more faculty to pursue Ph.D. As a consequence, almost 30 faculty members are pursuing PhD. All faculty members are attending FDPs and STTPs regularly.
2.2.5	Evaluation Process and reforms Higher number of quizzes and seminars should be held	The number of seminars and technical level competitions has increased manifold. A large number of mock online tests, class tests, quizzes and mock practical tests are conducted to prepare students to face the University online and end-term examinations.
<b>Research, Consultancy and Extension</b>		

2.3.1	<p>Promotion of Research A huge effort towards promotion of research needs to be put in (there is no PG / Doctoral program).</p> <p>Budget allocation for research is very low.</p> <p>More sponsored research projects need to be undertaken.</p>	<p>Huge efforts were made towards increase in R&amp;D Projects. Incentive policy for Research and Consultancy was instituted in 2011. An R&amp;D cell has been established for encouraging and guiding faculty to apply for research grants. During last assessment there were only 03 research projects (ongoing + completed), whereas, in the last four years, this number has increased to 21 R&amp;D projects. PG program in Mechanical Engineering-Design has commenced from 2015-16. Institute plans to start PG in Computer and E&amp;TC branch from 2016-17.</p> <p>Since institute was running UG programmes only, so funds initially allotted for research were low. This is slowly increasing. In the last academic year 23% of the academic expenses were spent on R&amp;D activities. With commencement of PG in Mechanical Design more funding for research is planned.</p> <p>In the last four years, sponsorship for 21 research projects (ongoing and completed) has been obtained. To fetch more grants, college applied for 2(f) and 12(B) and obtained the recognition in 2014-15. This year institute has applied for 04 minor projects and will be applying for 03 major projects.</p>
2.3.2	<p>Research and Publications Output: The number of research publications is very low.</p>	<p>Strict implementation of CAS policy and incentive policy has largely improved publication by faculty. Total publications by faculty in national, international journals and papers presented in national and international conferences during the last four years is almost 440. Number of publications by faculty in peer reviewed journals has also increased compared to last assessment. 10 patents have been filed in last four years, while in the earlier assessment no patents had been filed.</p>

	More incentives for attending conferences and for publication in journals needs to be provided.	100% Registration fee and TA/DA of faculty and students presenting papers in conferences is sponsored by institute. Registration fee (50%) of faculty attending conferences is also sponsored by institute. 100% Patent filing charges for faculty and students are sponsored by the institute. More than 90% faculty members have attended seminars/ conferences/ workshops.
2.3.3.	Consultancy No consultancy is being undertaken	Efforts have been made to undertake consultancy work and incentive policy for distribution of funds obtained from consultancy is in place. Over the last four years total consultancy work done by the departments for college and external agencies is about Rs. 35 lacs.
2.3.4	Extension Activities More efforts need to be put in.	A large number of extension activities, like blood donation camps, tree plantation drives, <i>Swachh Bharat Abhiyan</i> , road safety awareness drives, have been undertaken in last four years. Linkages with <i>Renuka Shishugraha</i> , <i>Annapurna ashram</i> , <i>Aadhar</i> blood bank, AFMC, Rotary Club, Mother Care Foundation, Global Shapers and QMTI have been developed.
2.3.5	Collaborations Few MoUs have been signed with industry for professional enhancement.	Larger number of MoUs have been signed with industry to enhance industry-institute interaction. Total 14 MoUs are in place at present.
<b>Infrastructure and Learning Resources</b>		
2.4.1	Physical facilities for learning Laboratories need to be reinforced by more equipments and experimental setups.	New labs have been added as per revised curriculum. New Labs in E&TC and IT dept has been created. TOM/DOM lab in Mechanical PG program have been upgraded. A new CNC / CAD lab has been developed. New lab equipments and experimental setups have been added in the last four

		<p>years.</p> <p>Dedicated lab for Innovation and incubation centre has been set up.</p> <p>New Library building has been constructed with more reading and storage space.</p> <p>Reading hall with central air conditioning with seating capacity of 150 Students has been created.</p> <p>Wi-Fi enabled Study halls with furniture have been made available in hostels</p>
2.4.2	Maintenance of Infrastructure	Maintenance of infrastructure is done properly with more than Rs. 1 crore budget allotted for the same every year.
2.4.3	Library as a Learning Resources Higher budget allocation for library is required. More books and magazines need to be purchased.	<p>Budget allocated to library has increased from Rs. 20 lacs in 2010-11 to Rs 34 lacs in 2014-15.</p> <p>The number of titles and volumes in the library at present are 8,499 and 28,254 respectively which is a 64% and 67% increase over last assessment (titles 5,153, volumes 16,928) .</p> <p>Online e-journals are made available to students and staff. Earlier there were 227 e-journals, whereas now it has increased to 737 e-journals.</p>
2.4.4	ICT as Learning resources	<p>In addition to having LCD projectors, internet connectivity and wi-fi enabled classrooms institute has been connected to NKN which has increased the bandwidth and in future will make possible for students to interact with national premier institutes like IITs and NITs through video conferencing.</p> <p>“Edvelop” a cloud based e-learning platform is planned to be introduced along with MOODLE.</p>
<b>Student Support and Progression</b>		
2.5.4	Best practices in students support and progression	<p>New initiatives introduced :-</p> <p>Students are evaluated by external agency AMCAT, twice over six months in second and third year on following parameters - English, Quantitative ability, Logical ability, Computer</p>

		<p>programming, Electronics &amp; semiconductor engineering, Mechanical engineering, Telecommunication, Metallurgical engineering, Automobile, Production, Computer Science and Data interpretation. The SWOT analysis report is given to each student so that he/she can improve upon his weak areas.</p> <p>The campus average AMCAT score in 2014-15 was 563 which is in the top 10% institutes of the country.</p> <p>Institute has decided to evaluate students based on his/her extra and co-curricular activities (CCCBAS) in order to increase the participation of all students in co- and extra-curricular activities and thus develop an all round personality.</p>
	<b>Governance and Leadership</b>	
2.6.1.	<p>Institutional vision and leadership</p> <p>Senior faculty at higher level are direly needed to mentor junior level faculty.</p>	<p>Senior faculty at higher level are mentoring junior level faculty right from orientation stage.</p>
	<p>The college should endeavour to embark upon more programmes including PG.</p>	<p>Institute has already started PG program in Mech. Dept. in 2015-16 and plans to start PG in Comp. and E&amp;TC Dept. from 2016-17.</p>
2.6.3	<p>Strategy development and deployment</p> <p>The college must evolve a strategy to promote research, higher academic levels by acquiring more grants, sponsorships and collaborations.</p>	<p>Institute has made incentive policy for promotion of research, pursuing PhD and consultancy to motivate faculty members. R&amp;D Cell has been formed to promote research.</p> <p>In the last four years 06 BCUD, Savitribai Phule Pune University research projects have been completed and 15 are ongoing.</p> <p>Faculty members have received research grants from research organizations and industry for development of Labs.</p> <p>Collaborative efforts are in process with certain industries.</p> <p>College has opened CSI and IEEE chapters with an aim to hold International seminars.</p>

2.6.4	Human resource management Career progressions of faculty and support staff need more attention by the management.	As per eligibility criteria laid down faculty members are promoted. AGP of eligible faculty was increased under CAS (13 faculty members benefitted last year).
<b>OVERALL ANALYSIS</b>		
3.2	<b>Institutional weaknesses</b> Lack of sufficient Ph D qualified middle and senior level faculty members. Serious shortage of Ph D qualified Professors heading the department. Insufficient budget provision for research and library. Lack of consultancy activities. Lack of sufficient upgradation programmes for Teaching and non teaching staff.	Good pool of PhD holders is now with every department. Almost 38% faculty are pursuing PhD, which is a significant improvement. Thus, the number of PhD qualified faculty will improve substantially in next few years. Sufficient budget has been given to Library (Rs.34 Lac. in the last academic year). For improvement in consultancy, departmental targets have been set. Laboratory assistants are pursuing their higher studies/upgradation programmes in their respective fields.
3.3	<b>Institutional Opportunities</b> Collaboration with defence, industries and other research organizations in Pune. Internship arrangements for students in industries. Creating entrepreneurship opportunities for students. Leveraging ICT into Teaching Learning process more effectively.	Effort have been made to get associated with DRDO, ARDE, BEL, Bharat Forge, and other industries/organizations in Pune and it can be seen through the good number of final year projects that are being sponsored by them. Almost 30-40% students are doing internship at various industries in winter and summer break. To help students become entrepreneurs Entrepreneurship Development Cell and Innovation and Incubation Cell have been formed to give boost to startups. Institute has acquired NKN facility which will boost ICT in a big way.
3.4	<b>Institutional challenges</b> Initiating PG programmes in all departments. Interfacing industry-institute interaction within the existing academic framework.	PG in Mech dept has been started and it is planned to start PG in Comp. and E&TC dept. in next two years. Industry-Institute-Interaction (III) cell has been formed to promote and strengthen industry institute interaction.

	<p>Creating a research and consultancy culture.</p> <p>Attracting sponsored research projects from different agencies.</p> <p>Deputing faculties for higher qualification with financial support.</p>	<p>Efforts are being made to promote the research and consultancy activity in the institute.</p> <p>Concept of <b><i>“One Industry One Faculty”</i></b> is introduced for further enrichment of III activity.</p> <p>Faculty members are working on about 15 BCUD, Savitribai Phule Pune University sponsored research projects and in the process of applying for more grants to agencies like UGC, DST and AICTE.</p>
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## Declaration by the Head of the Institute

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.



(Brig. (Dr.) S. K. Lahiri (Retd.))

Director

Army Institute of Technology

Place : Pune

Date: 17 Aug 2015





**Army Institute Of Technology (AIT)** Dighi Hills, Pune - 15.

Director Tele Fax : 27157534 Principal 27157741 Exch : 27157612, 27157534

Website :- [www.aitpune.com](http://www.aitpune.com)

Email :- [ait@aitpune.edu.in](mailto:ait@aitpune.edu.in)

Recognised by AICTE and affiliated to Savitribai Phule Pune University.

Unipune ID : CEGP011130 Affiliation ID : PU/PN/Engg/108(1994)

## Certificate of Compliance

(Affiliated/Constituent/Autonomous Colleges and Recognized Institutions)

This is to certify that Army Institute of Technology fulfils all norms:

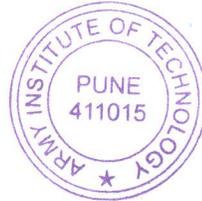
1. Stipulated by the affiliating University and/or
2. Regulatory Council/Body [such as UGC, NCTE, AICTE, MCI, DCI, BCI, etc] and
3. The affiliation and recognition is valid as on date.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 17-08-2015

Place: Pune



  
Principal  
(Dr. B. P. Patil)

# University of Pune

Telephone Nos. :

020- 25691233

25601258

25601259

25601257



ACADEMIC SECTION  
Ganeshkhind, PUNE-411007, INDIA

Telegraph : 'UNIPUNE'

Fax : 020-25698007

Webside : www.unipune.ac.in

e-mail : dyacademic@unipune.ac.in

Ref. No. : CA/457

Date : 1/2/2013

To,  
The Principal  
Army Welfare Education Society's,  
Army Institute of Technology,  
Dighi Hills, Tal. Haveli  
Dist.Pune-411 015

Sub : Permanent Affiliation to the courses under Engineering Faculty from the Academic year 2012-13.

Sir,

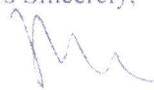
I am directed to inform you that the University Authorities have been pleased to grant **Permanent Affiliation** to the following courses as per Section 88 of the Maharashtra Universities Act 1994, from the Academic year 2012-13, subject to the terms & conditions laid down by the University of Pune, Government of Maharashtra, University Grants Commission, New Delhi or any other regulatory authority, from time to time.

## ENGINEERING FACULTY

**First to Fourth Year B. E.- Electronics & Telecommunication Engg (Intake 120),  
Computer Engg., Mechanical Engg., Information Technology (Intake 60 each),**

Encl : photocopy of the report

Yours Sincerely,

  
11-12-2013  
for Registrar.

Copy forwarded with compliments for information & necessary action to:

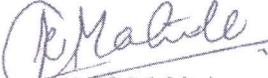
- 1 The Secretary, Higher & Technical Education, Mantralaya, Mumbai-400 032.
- 2 The Administrative Officer, Higher Education Grant, Pune Division Office, Maharashtra State, 17, Dr. Ambedkar Road, Near Saint Mathew Marathi Church, Opp. Lal Mandir, First Floor, Pune- 411 001.
- 3 The Controller of Examination, University of Pune, Pune - 411 007
- 4 The Dy. Registrar, Development Section, University of Pune, Pune- 411 007.
- 5 The Dy. Registrar Exam. Section Engineering University of Pune, Pune- 7
- 6 The System analyst, Management Information Cell (M.I.C.), University of Pune, Pune- 411 007.

A 28 PA/ 77/2012 dated 18<sup>th</sup> Dec-, 2012

RECOMMENDATIONS

The undersigned Committee unanimously recommends that Army Institute of Technology, Dighi Hills, Pune 411015, and University ID: CEGP011130 be granted Permanent Affiliation for the following branches.

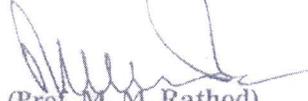
Sr. No.	Name of Branch	Intake Capacity
1.	Mechanical Engineering	60
2.	Electronics & Telecommunication Engineering	120
3.	Computer Engineering	60
4.	Information Technology	60

  
(Prin. Dr. K C Mohite)  
Chairman  
H. V. Desai College, Pune- 2

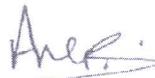
  
(Prof. Dr. S.S. Sane)  
Member  
KK Wagh, COE, Nashik

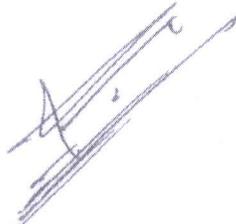
  
(Prof. Dr. (Mrs) A. V. Patil)  
Member  
DY Patil COE, Akurdi, Pune

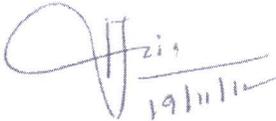
  
(Prof. Dr. Sunil Kute)  
Member  
KK Wagh COE, Nashik

  
(Prof. M. M. Rathod)  
Member  
SNJB, COE, Nashik

Report accepted.

  
Aneer  
19-11-2012



  
19/11/12



Ph. 23236351, 23232701, 23237721  
 23234116, 23235733, 23232317  
 23236735, 23239437, 23239627

Extension No. 413 (CPP-I Colleges)

UGC Website: [www.ugc.ac.in](http://www.ugc.ac.in)

F. No. 8-115/2014 (CPP-I/C)

The Registrar,  
 University of Pune  
 Ganeshkhind, Pune – 411 007

**Maharashtra**



ज्ञान-विज्ञान विमुक्तये  
**SPEED POST**

विश्वविद्यालय अनुदान आयोग  
 बहादुरशाह जफर मार्ग  
 नई दिल्ली-110 002

UNIVERSITY GRANTS COMMISSION  
 BAHADURSHAH ZAFAR MARG  
 NEW DELHI-110 002

September, 2014

**5 SEP 2014**

**Sub:** Recognition of College under Section 2 (f) & 12 (B) of the UGC Act, 1956.

Sir,

I am directed to refer to the letter no. AIT/0236/UGC/Coord/10491 dated 30.07.2014 received from the Principal, Army Institute of Technology (AIT), Dighi Hills, Alandi Road, Pune – 411 015, Maharashtra on the above subject and to say that it is noted that the following College is **un-aided/self financed** and **permanently** affiliated to **University of Pune, Ganeshkhind**. I am further to say that the name of the following college has been included in the list of colleges prepared under Section 2 (f) & 12 (B) of the UGC Act, 1956 under the head '**Non-Government, self financed** Colleges teaching upto **Bachelor's Degree**':-

Name of the College	Year of Establishment	Remarks
Army Institute of Technology (AIT), Dighi Hills, Alandi Road, Pune – 411 015, Maharashtra.	1994	The College is now declared fit to receive Central assistance in terms of Rules framed under Section 12 (B) of the UGC Act, 1956. However, the College, being a self financing & unaided, would be eligible to receive UGC's support only in respect of teachers & students related schemes as per the decision of the Commission dated 8 <sup>th</sup> July 2011

The Indemnity Bond and the other supporting documents submitted in respect of the above College have been accepted by the University Grants Commission.

Yours faithfully,

(Charan Dass)  
 Under Secretary

Copy to:-

- ✓ 1. The Principal, Army Institute of Technology (AIT), Dighi Hills, Alandi Road, Pune – 411 015, Maharashtra.
2. The Secretary, Government of India, Ministry of Human Resource Development, Department of Secondary & Higher Education, Shastri Bhawan, New Delhi - 110 001.
3. The Principal Secretary, Tech. & Higher Education Deptt., Government of Maharashtra, Mantralaya, Annexe Building, Mumbai – 400 032, (Maharashtra).
4. The Joint Secretary, UGC, Western Regional Office (WRO), Ganeshkhind, Poona – 411 007, (Maharashtra).
5. Publication Officer (UGC-Website), New Delhi
6. Section Officer (FD-III Section), UGC, New Delhi.
7. Guard file.

(Charan Dass)  
 Under Secretary



All India Council for Technical Education  
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-India.org](http://www.aicte-India.org)

F.No. Western/1-2453903098/2015/EOA

Date: 07-Apr-2015

To,  
The Secretary,  
Tech. & Higher Education Deptt.  
Govt. of Maharashtra, Mantralaya,  
Annexe Building, Mumbai-400032

**Sub: Extension of approval for the academic year 2015-16**

Ref: Application of the Institution for Extension of approval for the academic year 2015-16

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Western	Application Id	1-2453903098
		Permanent Id	1-14666921
Name of the Institute	ARMY INSTITUTE OF TECHNOLOGY	Institute Address	PUNE-ALANDI ROAD, DIGHI HILLS, PUNE 411015, PUNE, PUNE, Maharashtra, 411015
Name of the Society/Trust	ARMY WELFARE EDUCATION SOCIETY	Society/Trust Address	ADJUTANT GENERAL'S BRANCH, INTEGRATED HQ OF MOD (ARMY) BUILDING NO: 202, SHANKAR VIHAR, DELHI CANTONMENT,  NEW DELHI PIN CODE: 110010,NEW DELHI,NEW DELHI,Delhi,110010
Institute Type	Unaided - Private		

Opted for change from Women to Co-ed	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2015-16

Application Number: 1-2453903098\*

Page 1 of 3

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:27 April 2015

Printed By : AE12934251



Application Id: 1-2453903098			Course	Full/Part Time	Affiliating Body	Intake 2014-15	Intake Approved for 15-16	NRI Approval status	PIO Approval status	Foreign Collaboration Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	MECHANICAL ENGINEERING DESIGN	FULL TIME	University of Pune, Pune	0	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	FULL TIME	University of Pune, Pune	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	University of Pune, Pune	60	60	NA	NA	NA

Note: Validity of the course details may be verified at [www.aicte-india.org>departments>approvals](http://www.aicte-india.org/departments/approvals)

The above mentioned approval is subject to the condition that ARMY INSTITUTE OF TECHNOLOGY shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Application Number: 1-2453903098\*

Page 2 of 3

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:27 April 2015

Printed By : AE12934251



All India Council for Technical Education  
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001  
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 [www.aicte-India.org](http://www.aicte-India.org)

Dr. Avinash S Pant  
Actg Chairman, AICTE

Copy to:

1. **The Regional Officer,**  
All India Council for Technical Education  
Industrial Assurance Building  
2nd Floor, Nariman Road  
Mumbai - 400 020, Maharashtra
2. **The Director Of Technical Education,**  
Maharashtra
3. **The Registrar,**  
University of Pune, Pune
4. **The Principal / Director,**  
ARMY INSTITUTE OF TECHNOLOGY  
PUNE-ALANDI ROAD, DIGHI HILLS, PUNE 411015,  
PUNE,PUNE,  
Maharashtra,411015
5. **The Secretary / Chairman,**  
ARMY WELFARE EDUCATION SOCIETY  
ADJUTANT GENERAL'S BRANCH,  
INTEGRATED HQ OF MOD (ARMY)  
BUILDING NO: 202, SHANKAR VIHAR,  
DELHI CANTONMENT,  
  
NEW DELHI  
PIN CODE: 110010,  
NEW DELHI,NEW DELHI,  
Delhi,110010
6. **Guard File(AICTE)**

Application Number: 1-2453903098\*

Page 3 of 3

Note: This is a Computer generated Letter of Approval.No signature is required.

Letter Printed On:27 April 2015

Printed By : AE12934251

# NATIONAL BOARD OF ACCREDITATION

NBCC Place, East Tower, 4<sup>th</sup> Floor, Bhisham Pitamah Marg,  
Prasadi Vihar, New Delhi-110 003  
Tel: 91 11 2436 0020, 2436 0054 Telefax: +91 11 2436 0002



F. No. 28-321/2010-NBA

Date: May 20, 2014

To,

The Director/Principal,  
Army Institute of Technology,  
Dighi Hills, Alandi Road,  
Pune-411 015.

Army Institute of Technology  
Dighi Hills, Pune-411015.  
Inward No. 8401  
Date 24.5.2014

Subject: Accreditation status of programs applied by Army Institute of Technology, Pune, Maharashtra.

Dear Sir,

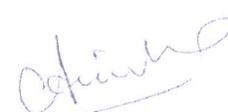
This has reference to your application dated 01-10-2010 seeking accreditation of the National Board of Accreditation to 4 UG Engineering Programs offered your institute.

2. Accreditation status of 3 UG Programs viz Electronics & Telecommunication Engineering, Mechanical Engineering and Information Technology was conveyed to the Institute vide NBA's letter No. 28-321/2010-NBA dated 22-10-2013 and it was intimated to the Institute that decision on the accreditation status of the Computer Engineering Program will be intimated in due course of time.

3. The Executive Committee of the National Board of Accreditation considered the matter at its meeting held on 06th May, 2014. Accreditation status of the UG Computer Engineering Program approved by the Committee is indicated below:

Sl. No.	Name of the Program (UG)	Accreditation Status	Period of validity w.e.f. 06-05-2014	Remarks
(1)	(2)	(3)	(4)	(5)
1.	Computer Engineering	Accredited	5 Years	Accreditation status granted is valid for the period indicated in Column No. 4 or till the programme(s) has the approval of the competent authority, whichever is earlier.

4. The accreditation status awarded to the program as indicated in the above table does not imply that the accreditation has been granted to the Army Institute of Technology, Dighi Hills, Alandi Road, Pune as a whole. As such the Institute should nowhere along with its name including on its letter head etc., write that it is accredited by the NBA because it is program accreditation and not Institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously. Complete name of the programs accredited, level of programs (UG or PG as the case may be) and the period of validity of accreditation, should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by the NBA.

 Contd...2/-

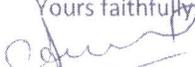
5. The accreditation status of the above program is subject to change on periodic review, if needed by the NBA. It is desired that the relevant information in respect of accredited program as indicated in the table in paragraph 3, appears on the website and information bulletin of the Institute.

6. The accreditation status awarded to the program as indicated in table in paragraph 3 above is subject to maintenance of the current standards during the period of accreditation. If there are any changes in the status (major changes of faculty strength, organizational structure etc.), the same are required to be communicated to the NBA, with an appropriate explanatory note.

7. Copies of the Comprehensive Report submitted by the Chairman of the Expert Committee along with the detailed reports submitted by the Expert Team which visited your institution for the program evaluated are enclosed for reference and for taking necessary action to overcome the shortcomings, if any, pointed out by the Expert Team.

8. If the Institution is not satisfied with the decision of the NBA, it may appeal within thirty days (30 days) of receipt of this communication giving reasons for the same and by paying the requisite fee.

Yours faithfully

  
(Dr. Anil Kumar Nassa)  
Member Secretary

Ends.: Copies of Comprehensive Report of Chairman and Expert Report of the Visiting Team.

Copy to :

1. The Secretary,  
Higher & Technical Education & Employment Department,  
Govt. of Maharashtra, Mantralaya,  
Mumbai – 400 032.
2. The Director,  
Directorate of Technical Education,  
Govt. of Maharashtra,  
3, Mahapalika Marg,  
Mumbai – 400 001, Maharashtra.
3. The Registrar,  
University of Pune,  
Ganeshkhind, Pune-411 007.
4. The Member Secretary  
All Indian Council for Technical Education,  
7<sup>th</sup> Floor, Chanderlok Building,  
Janpath, New Delhi – 110 001
5. Accreditation File
6. Master Accreditation file of the State

# NATIONAL BOARD OF ACCREDITATION

NBCC Place, East Tower, 4th Floor, Bhisham Pitamah Marg  
Pragati Vihar, New Delhi-110 003  
Tel: +91 11 2436 0620, 2436 0654 Telefax: +91 11 2436 0682



File No. 28-321/2010-NBA

Date: 22.10.2013

To

The Principal/Director  
Army Institute of Technology,  
Dighi Hills, Alandi Road,  
Pune – 411 015

Army Institute of Technology,  
Dighi Hills, Pune-411 015.

Inward No. 8059  
Date: 28/10/2013

Sub: Accreditation status of programmes applied by Army Institute of Technology, Dighi Hills, Alandi Road,  
Pune – 411 015

Dear Sir/ Madam

This has reference to your application dated 01.10.2010 seeking accreditation of National Board of Accreditation to UG Programmes offered by your institution.

2. An Expert Committee conducted an on-site evaluation of the programmes during 18-01-2013 to 20-01-2013. The report submitted by the Expert Committee was considered by the Engineering Accreditation Evaluation Committee (EAEC) at its meeting held on 30.07.2013. The Sub-Committee of Academic Advisory Committee on Engineering considered the recommendations of EAEC at its meeting held on 11.09.2013. The Executive Committee of the National Board of Accreditation considered the recommendations of the Sub-Committee of Academic Advisory Committee on Engineering at its meeting held on 18.09.2013. The Executive Committee approved the accreditation status of the programmes as given in the table below:

Sl. No	Name of the Programmes (UG)	Accreditation Status	Period of validity w.e.f. 18.09.2013	Remarks
(1)	(2)	(3)	(4)	(5)
i)	Electronics & Telecommunication Engineering	Provisionally Accredited	2 years	Accreditation Status granted is valid till the programme has the approval of the Competent Authority or the period given in Col. '4', whichever is earlier.
ii)	Mechanical Engineering	Provisionally Accredited	2 years	
iii)	Information Technology	Provisionally Accredited	2 years	

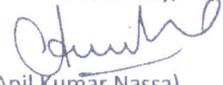
3. The accreditation status awarded to the programmes as indicated in the above table does not imply that the accreditation has been granted to Army Institute of Technology, Pune as a whole. As such the institution should nowhere along with its name including on its letter head etc., write that it is accredited by NBA because it is programme accreditation and not institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously. Complete name of the programme(s) accredited, level of programmes (UG or PG as the case may be) and the period of validity of accreditation, as well as the date from which the accreditation is effective, should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

4. The accreditation status of the above programmes is subject to change on periodic review, if needed by the NBA. It is desired that the relevant information in respect of accredited programmes as indicated in the table in paragraph 2, appears on the website and information bulletin of your institution.

Contd/2-

5. The accreditation status awarded to the programmes as indicated in table in paragraph 2 above is subject to maintenance of the current standards during the period of accreditation. If there are any changes in the status (major changes of faculty strength, organizational structure etc.), the same are required to be communicated to the NBA, with an appropriate explanatory note.
6. Copies of the Comprehensive Report submitted by the Chairman of the Expert Committee along with the detailed reports submitted by the Expert team which visited your institution for the programmes evaluated are enclosed for reference and to take necessary action to overcome the shortcomings, if any, pointed out by the Expert Team.
7. If the institution is not satisfied with the decision of NBA, it may appeal within thirty days of receipt of this communication giving reasons for the same and by paying the requisite fee.

Yours faithfully,



(Dr. Anil Kumar Nassa)  
Member Secretary

**Note: Under Para 3.4.4 of Chapter 3 of the Manual of Accreditation, 2013, it is provided that the application for accreditation received in an academic year will be considered in next academic year. Therefore, the Institute may apply if it so desires, in the academic year 2014-15 for full accreditation of the provisionally accredited programme(s) in order to have continuation of accreditation.**

- Encls: 1. Copy of Report of Chairman of the Visiting Team  
2. Copies of Expert Reports of the Visiting Team.

**Copy to:**

1. The Secretary,  
Higher & Technical Education & Employment Department  
Govt. of Maharashtra, Mantralaya,  
Mumbai-400 032
2. The Director  
Directorate of Technical Education  
Govt. of Maharashtra  
3, Mahapalika Marg  
Mumbai-400 001 (MS)
3. The Registrar  
University of Pune,  
Ganeshkhind  
Pune-411007
4. Member Secretary, AICTE  
All India Council for Technical Education  
7th Floor, Chanderlok Building  
Janpath, New Delhi-110 001
5. Accreditation File
6. Master accreditation file of the State.

# SGS

Certificate SG05/00555

The management system of

## Army Institute of Technology

Pune Alandi Road, Dighi Hills,  
Pune - 411 015, India.

has been assessed and certified as meeting the requirements of

### ISO 9001:2008

For the following activities

#### Providers of Engineering Education in all Disciplines

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organisation

This certificate is valid from 9 November 2010 until 14 September 2011 and remains valid subject to satisfactory surveillance audits.  
Re certification audit due before 14/07/2011  
Issue 3. Certified since 15 September 2005

Authorised by



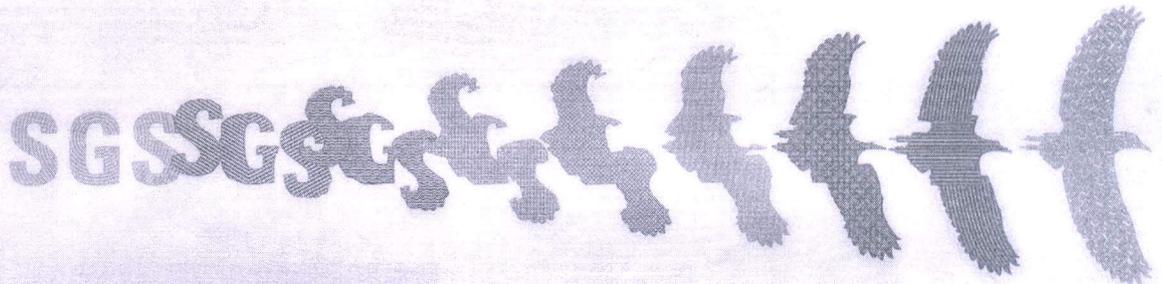
SGS United Kingdom Ltd Systems & Services Certification  
Rossmore Business Park Ellesmere Port Cheshire CH65 3EN UK  
t +44 (0)151 350-6666 f +44 (0)151 350-6600 www.sgs.com

SGS 9001-2 01 0303

Page 1 of 1



005







# CERTIFICATE



**Management system as per  
EN ISO 9001:2008**

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that

**Army Institute of Technology**

**Alandi Road, Pune- 411 015, India**

applies a management system in line with the above standard for the following scope

**Provision of Engineering Education to Under Graduates in the Discipline of Mechanical Engineering, Electronic and Telecommunication Engineering, IT & Computer Science**

Certificate Registration No. 20 100 122007188

Valid until 2018-02-23  
Initial certification 2012-02-24

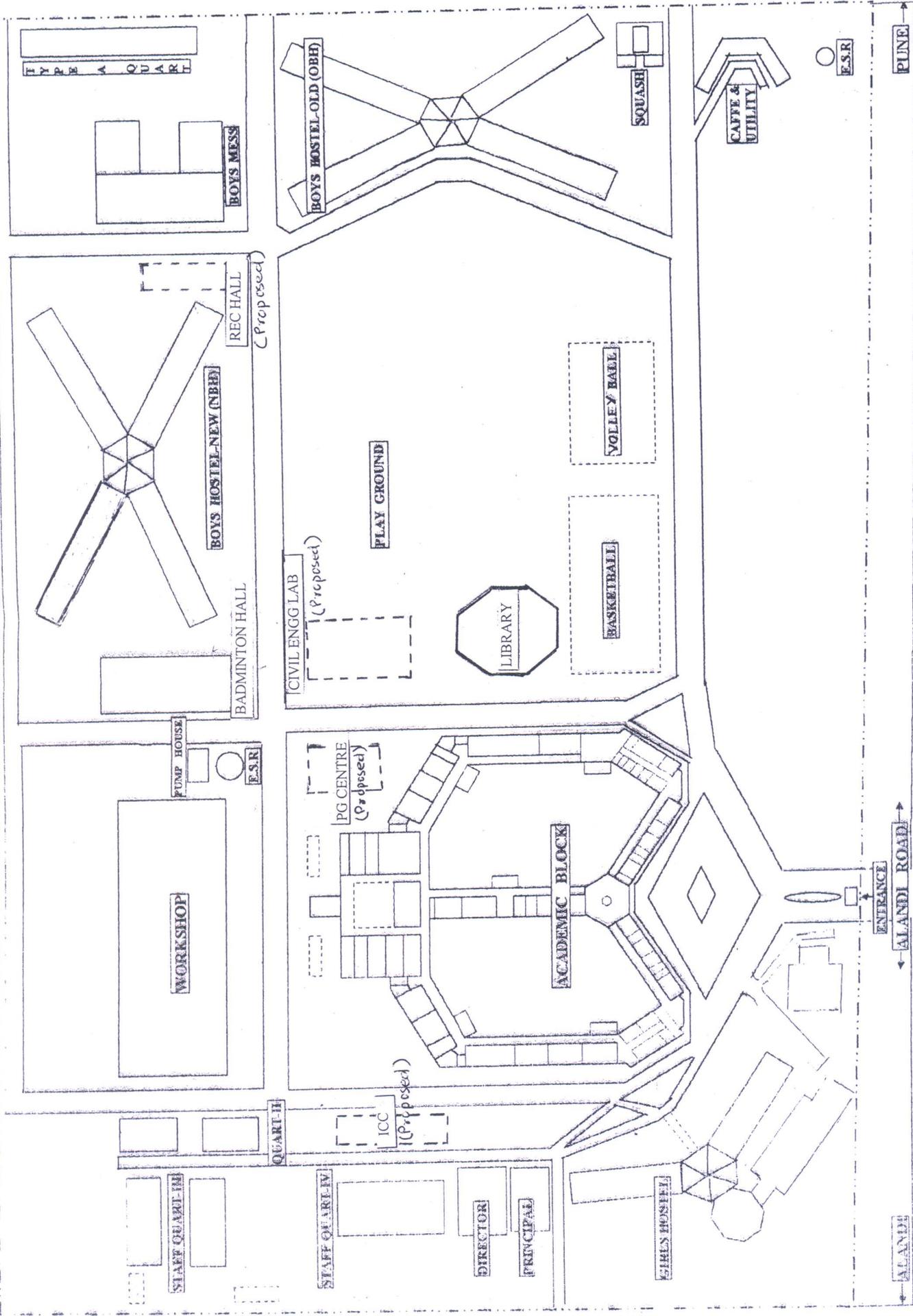
Certification Body  
at TÜV AUSTRIA CERT GMBH

Vienna, 2015-01-14

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits.  
TÜV AUSTRIA CERT GMBH Krugerstraße 16 A-1015 Wien [www.tuv.at](http://www.tuv.at)



ZERTIFIKAT | CERTIFICATE | CERTIFICAT | CERTIFICADO | СЕРТИФИКАТ | شهادة | 證書 | 인증서



SCALE 1:1000

MASTER PLAN



## NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

(An Autonomous Institution of the University Grants Commission)

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

LOI submitted date	03/03/2015
Track id	MHCOGN10824
1 Process and Cycle	ACCREDITATION, Cycle: 3
2 Institution Name	ARMY INSTITUTE OF TECHNOLOGY (AIT)
3 Name of the Head of the Institution	DR.B P PATIL
3a Designation	OFFG PRINCIPAL
4 Address	DIGHI HILLS
City	PUNE
State	MAHARASHTRA
Pin code	411015
Phone no.	020 27157534 020 27157612
Mobile no	9689907475 8390798696
Fax	020 27157534
Email	ait@aitpune.edu.in principal@aitpune.edu.in
Website	www.aitpune.com
5 Date of Establishment	01/08/1994
5a Have two batches of students graduated from the college	Yes
6 Is the College recognized under section 21 of UGC act?	Yes
6a Date of Recognition by UGC under 21	05/09/2014
Uploaded UGC 21 certificate	UGC LETTER FOR AIT PUNE 2 F 12 B.PDF

7	Is the College recognized under section 12B of UGC act?	Yes
7a	Date of Recognition by UGC under 12(B)	05/09/2014
	Uploaded UGC 12B certificate	UGC LETTER FOR AIT PUNE 2 F 12 B.PDF
7b	Name of the university to which the college is Affiliated or of which the college is Constituent	UNIVERSITY OF PUNE, PUNE
	State in which affiliating university is located	MAHARASHTRA
	Type Of Affiliation	PERMANENT
	Uploaded Certificate	PERMANENT AFFILIATION LETTER.PDF
7c	If the institution is not affiliated to a university,does it offer any programmes recognized by any Statutory Professional Regulatory (SPR) Council which is equivalent to a post graduate programme of a university	No
	Name of the Programmes	
	Name of SPR Council recognizing it	
	Equivalent University degree	
8a	Is the institution recognised as an Autonomous College by the UGC?	No
	Autonomous Date	
	Uploaded Certificate	

8b Is the institution recognised as College with 'Potential for Excellence(CPE)' by the UGC

No

CPE Date

Uploaded Certificate

8c Is the college offering any programmes by any Statutory Regulatory Authority(SRA)?

Yes

Statutory Regulatory Bodies

AICTE

Uploaded certificate of recognition by SRA

AICTE APPROVAL 2014-15 UPDATED.PDF

9a Nature of the college

PRIVATE  
SELF FINANCING

9b Number of degrees offered

Certificate: :  
Diploma: :  
UG: :4  
PG: :  
PG Diploma recognized by statutory authority:  
Research: :  
Others: :

9c Details of degrees offered

Arts: :NIL  
Commerce: :NIL  
Science: :NIL  
Education: :NIL  
Health Sciences: :NIL  
Engineering and Technology: :B.E.  
(COMPUTER)B.E.(MECHANICAL)B.E.  
(ELECTRONICS AND TELECOMMUNICATIONS)B.E.  
(INFORMATION TECHNOLOGY)

Management: :NIL  
Others: :NIL

10 Whether Teacher  
Education / Physical  
Education department is  
opting for A&A process  
separately?

No

11 Total Number of  
Teaching Staff  
Non-Teaching Staff  
Students

82  
112  
1203

12 Date of establishment of  
IQAC

25/02/2005

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL  
P. O. Box No. 1075, Nagarbhavi, Bangalore - 560072,  
Karnataka, India  
Phone: +91-80-23350261



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद  
विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान  
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL  
An Autonomous Institution of the University Grants Commission

## Quality Profile

Name of the Institution : Army Institute of Technology (AIT)

Place : Dighi Hills, Pune, Maharashtra

Criteria	Weightage (W <sub>i</sub> )	Criterion-Wise Grade Point Averages (Cr <sub>i</sub> GPA)	W <sub>i</sub> X Cr <sub>i</sub> GPA
I. Curricular Aspects	050	3.20	160
II. Teaching-Learning and Evaluation	450	2.78	1251
III. Research, Consultancy and Extension	100	1.95	195
IV. Infrastructure and Learning Resources	100	3.30	330
V. Student Support and Progression	100	3.60	360
VI. Governance and Leadership	150	2.43	365
VII. Innovative Practices	050	3.00	150
Total	$\sum_{i=1}^7 W_i = 1000$		$\sum_{i=1}^7 (W_i \times Cr_i \text{ GPA}) = 2811$

$$\text{Institutional Score} = \frac{\sum_{i=1}^7 (W_i \times Cr_i \text{ GPA})}{\sum_{i=1}^7 W_i} = \frac{2811}{1000} = \boxed{2.81}$$

Grade = **B**

Descriptor = **GOOD**

Date : September 04, 2010



*HARSHAN*  
Director

- This certification is valid for a period of Five years with effect from September 04th, 2010
- An institutional CGPA on four point scale in the range of 3.01 - 4.00 denotes A grade (Very Good), 2.01 - 3.00 denotes B grade (Good), 1.51 - 2.00 denotes C grade (Satisfactory)
- Scores rounded off to the nearest integer

EC/53/RAR/71



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद  
विश्वविद्यालय अनुदान आयोग का स्वयत्त संस्थान

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**  
*An Autonomous Institution of the University Grants Commission*

# *Certificate of Accreditation*

*The Executive Committee of the  
National Assessment and Accreditation Council  
on the recommendation of the duly appointed  
Peer Team is pleased to declare the  
Army Institute of Technology (AIT)  
Dighi Hills, Pune, affiliated to University of Pune, Maharashtra as  
Accredited  
with CGPA of 2.81 on four point scale  
at B grade  
valid up to September 03, 2015*

*Date : September 04, 2010*



*HARAJAN*  
Director

EC/53/RAR/71

PEER TEAM REPORT ON INSTITUTIONAL  
RE-ACCREDITATION OF ARMY INSTITUTE OF TECHNOLOGY,  
PUNE - 411 015

Section I: GENERAL INFORMATION	
1.1 Name & Address of the Institution:	ARMY INSTITUTE OF TECHNOLOGY, Pune Alandi Road, Dighi Hills, Haveli Pune
1.2 Year of Establishment:	1994
1.3 Current Academic Activities at the Institution (Numbers):	UG Programme <ul style="list-style-type: none"> <li>• Electronics &amp; Telecommunication</li> <li>• Computer Engineering</li> <li>• Mechanical Engineering</li> <li>• Information Technology</li> </ul>
<ul style="list-style-type: none"> <li>• Faculties/ Schools:</li> <li>• Departments/ Centres:</li> <li>• Programmes/ Courses offered:</li> <li>• Permanent Faculty Members:</li> <li>• Permanent Support Staff:</li> <li>• Students:</li> </ul>	<ul style="list-style-type: none"> <li>-</li> <li>05</li> <li>04</li> <li>57</li> <li>96</li> <li>999</li> </ul>
1.4 Three major features in the institutional Context (As perceived by the Peer Team):	<ul style="list-style-type: none"> <li>• Green Campus, adequate infrastructure with committed faculty and staff, and conducive learning environment.</li> <li>• Student population from every part of the country.</li> <li>• Committed management with good vision.</li> </ul>
1.5 Dates of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	10/8/2010-12/8/2010
1.6 Composition of the Peer Team which undertook the on- site visit:	
Chairman	Prof. A Sridharan, Former Deputy Director & Advisor, IISc, Bangalore.
Member	Prof. VK Mahna, Former Professor & Dean, Delhi College of Engineering.
Member	Prof. RB Ram, Dean, School for Bio Sciences & Bio Technology, BV Ambedkar, University, Lucknow.
NAAC Officer	Dr Sujata P. Shanbhag, NAAC Bangalore.



Section II: CRITERION WISE ANALYSIS	
<b>2.1 Curricular Aspects:</b>	
2.1.1 Curricular Design & Development:	<ul style="list-style-type: none"> <li>• Curricular design and development is as per affiliating University, Pune.</li> <li>• Selected electives are offered from the listed electives of University.</li> <li>• The programme is as per the vision and mission of the Institution.</li> </ul>
2.1.2 Academic Flexibility:	<ul style="list-style-type: none"> <li>• Limited flexibility within the programme by way of electives.</li> <li>• The college has MoUs with some industries including defence R&amp;D establishments to improve the quality of final year projects and placement scenario.</li> </ul>
2.1.3 Feedback on Curriculum	<ul style="list-style-type: none"> <li>• Feedback on curriculum is collected from stakeholders such as students, faculty, alumni and employers and conveyed to Board of Studies of the University.</li> </ul>
2.1.4. Curriculum Update	<ul style="list-style-type: none"> <li>• University updates the curriculum periodically.</li> <li>• Recent updation was carried out 2 years ago.</li> </ul>
2.1.5 Best Practices in Curricular Aspects (If any):	<ul style="list-style-type: none"> <li>• Imparting soft skills training.</li> <li>• Personality development inputs.</li> </ul>

<b>2.2 Teaching-Learning &amp; Evaluation:</b>	
2.2.1 Admission Process and Student Profile	<ul style="list-style-type: none"> <li>• Admission of students is restricted to wards of Army personnel.</li> <li>• Admission is purely based on AIEEE rank with no reservation.</li> <li>• Students are represented from all over the country.</li> </ul>
2.2.2 Catering to the Diverse Needs:	<ul style="list-style-type: none"> <li>• Caters to the needs of wards of Army personnel</li> <li>• Fully residential facility for both students and staff.</li> </ul>



2.2.3 Teaching-Learning Process:	<ul style="list-style-type: none"> <li>• Lesson plans alongwith detailed lecture notes, question banks on intranet.</li> <li>• Two teachers in each practical class and high teacher-student contact.</li> <li>• Efforts for exposure to recent developments in the respective subjects needs more attention.</li> <li>• Fully developed and well-stocked Dept libraries are needed.</li> <li>• ICT in teaching-learning process could be more effective.</li> <li>• Higher number of expert lectures need to be arranged.</li> </ul>
2.2.4 Teacher Quality:	<ul style="list-style-type: none"> <li>• Only one PhD and also less number of MTech/ME qualified teachers in the four Engineering Departments.</li> <li>• A much higher number of Professors and Asst Professors are required.</li> <li>• Teachers need to be further encouraged to enhance their quality and qualification.</li> </ul>
2.2.5 Evaluation Process and Reforms:	<ul style="list-style-type: none"> <li>• The college follows the examination system prescribed by the University of Pune.</li> <li>• A higher number of quizzes, seminars for the students should be held.</li> <li>• Interactive sessions designed in lesson plan.</li> </ul>
2.2.6 Best Practices in Teaching-Learning and Evaluation (If any):	<ul style="list-style-type: none"> <li>- Two teachers engaged for practical classes.</li> </ul>
<i>2.3 Research, Consultancy &amp; Extension:</i>	
2.3.1 Promotion of Research:	<ul style="list-style-type: none"> <li>• A huge effort towards promotion of research needs to be put in. (There is no PG/Doctoral programme).</li> <li>• The budget allocation for research is very low.</li> <li>• More sponsored research projects need to be undertaken.</li> </ul>



2.3.2 Research and Publications Output:	<ul style="list-style-type: none"> <li>• The number of research publication by the faculty is very low.</li> <li>• More incentive for attending conferences and for publications in journals needs to be provided.</li> </ul>
2.3.3 Consultancy:	<ul style="list-style-type: none"> <li>• No consultancy is being undertaken.</li> </ul>
2.3.4 Extension Activities:	<ul style="list-style-type: none"> <li>• More effort needs to be put in.</li> </ul>
2.3.5 Collaborations:	<ul style="list-style-type: none"> <li>• Few MoUs have been signed with industry for professional enhancement.</li> </ul>
2.3.6 Best Practices in Research, Consultancy & Extension (If any):	--
<b>2.4 Infrastructure and Learning Resources:</b>	
2.4.1 Physical Facilities for Learning:	<ul style="list-style-type: none"> <li>• The college has a very spacious and well appointed campus spread over 30 acres.</li> <li>• Very well designed class rooms with LCDs and furniture.</li> <li>• Very well designed Amphitheatre and Conference Rooms are provided.</li> <li>• Excellent sports facilities.</li> <li>• Laboratories need to be reinforced by more equipments and experimental setups.</li> </ul>
2.4.2 Maintenance of Infrastructure:	<ul style="list-style-type: none"> <li>• Maintenance of infrastructure could be better.</li> </ul>
2.4.3 Library as a Learning Resources	<ul style="list-style-type: none"> <li>• Good library administration supplemented by computerization.</li> <li>• Higher budget allocation for library is required.</li> <li>• More books and magazines need to be purchased.</li> <li>• Good e-library (alongwith e-journals) facilities are available.</li> </ul>



2.4.4 ICT as Learning Resources:	<ul style="list-style-type: none"> <li>• Good use of ICT is being made in the classrooms.</li> <li>• Intranet facility for transmission of lectures, lesson plans is in place.</li> <li>• Very good access to intranet available for faculty and students.</li> <li>• A good number of software to enhance the technical skills of students.</li> </ul>
2.4.5 Other Facilities:	<ul style="list-style-type: none"> <li>• Excellent hostel and messing facilities.</li> <li>• Highly organized hostel system.</li> <li>• Sufficient Power backup.</li> <li>• Very good medical support, shopping complex, banking facility.</li> </ul>
2.4.6 Best Practices in the development of Infrastructure and Learning resources (If any):	<ul style="list-style-type: none"> <li>• Very good internet access and indoor sports facilities in the hostels.</li> <li>• Good mechanism to attend to students infrastructure requirement is in place.</li> <li>• Consistently very good results in the University Examination with very low dropout rate.</li> </ul>
<i>2.5 Student Support and Progression:</i>	
2.5.1 Student Progression:	<ul style="list-style-type: none"> <li>• A pattern of marked personality enhancement of students has been witnessed.</li> <li>• A high degree of professional development for students during their tenure of four years is manifest.</li> </ul>
2.5.2 Student Support:	<ul style="list-style-type: none"> <li>• A good mechanism for students supports in respect of infrastructure, sports, cultural activities is in place.</li> <li>• Students support system is very well organized and sustained.</li> </ul>
2.5.3 Student Activities:	<ul style="list-style-type: none"> <li>• An admirable system for fostering talents and special aptitudes of students.</li> <li>• Very good record of college teams in sports and cultural activities.</li> </ul>



2.5.4 Best Practices in Student Support and Progression (If any):	<ul style="list-style-type: none"> <li>• Good placement record and Alumni have progressed to positions of eminence.</li> <li>• Very good feedback from Employers for students of the college.</li> <li>• Satisfaction, quotient of students is very high.</li> <li>• The college has highly disciplined student population with promising professional attributes.</li> <li>• Highly motivated and inspired students.</li> </ul>
<b>2.6 Governance and Leadership:</b>	
2.6.1 Institutional Vision and Leadership:	<ul style="list-style-type: none"> <li>• Senior faculty at higher level is direly needed to mentor junior level faculty.</li> <li>• The college should endeavour to embark upon more programmes including PG.</li> </ul>
2.6.2 Organizational Arrangements:	<ul style="list-style-type: none"> <li>• Director and Joint Director from the Army are at the helm of administrative affairs while Principal is the In-charge of academic matters.</li> </ul>
2.6.3 Strategy Development and Deployment:	<ul style="list-style-type: none"> <li>• The college must evolve a strategy to promote research, higher academic levels by acquiring more grants, sponsorships and collaborations.</li> </ul>
2.6.4 Human Resource Management:	<ul style="list-style-type: none"> <li>• The career progressions of the faculty and supporting staff need more attention by the management.</li> <li>• High performers are identified and are given incentive.</li> <li>• Residential accommodation for faculty and staff is readily available.</li> </ul>
2.6.5 Financial Management and Resource Mobilization:	<ul style="list-style-type: none"> <li>• The college gets grant-in-aid from AWES.</li> <li>• The fees charged from the students are very reasonable for the facilities provided to them.</li> </ul>
2.6.6 Best Practices in Governance and Leadership (If any):	<ul style="list-style-type: none"> <li>• The student discipline and work culture is of the highest order.</li> <li>• The organization, administrative processes and procedure are highly structured.</li> </ul>



<b>2.7 Innovative Practices:</b>	
2.7.1 Internal Quality Assurance System:	<ul style="list-style-type: none"> <li>• IQAC comprising faculty from every department is in place.</li> </ul>
2.7.2 Inclusive Practices:	<ul style="list-style-type: none"> <li>• A good number of females both in faculty and students.</li> </ul>
2.7.3 Stakeholder Relationships:	<ul style="list-style-type: none"> <li>• Since the parents of all students are with the Army background, a congenial relationship exists between students and teachers and parents and management.</li> </ul>

<b>Section III: OVERALL ANALYSIS</b>	
3.1 Institutional Strengths:	<ul style="list-style-type: none"> <li>• The institution attracts very good students with high AIEEE Rank from all over India.</li> <li>• The Institute has well maintained infrastructure with good academic ambience.</li> <li>• The Institute is fully residential for both faculty and students.</li> <li>• Easy access to internet for faculty and students in the academic area and hostels as well.</li> <li>• Students are highly disciplined.</li> <li>• They are aware of professional, societal values and ethics.</li> <li>• Good feedback mechanism from the students for faculty exists.</li> </ul>
3.2 Institutional Weaknesses:	<ul style="list-style-type: none"> <li>• Lack of sufficient PhD qualified middle and senior level faculty members.</li> <li>• Serious shortage of PhD qualified Professors heading the Department.</li> <li>• Insufficient budget provision for research and library.</li> <li>• Lack of consultancy activities.</li> <li>• Lack of sufficient upgradation programme for Teaching and Non-Teaching staff.</li> </ul>

*[Handwritten Signature]*

3.3 Institutional Opportunities:	<ul style="list-style-type: none"> <li>• Collaboration with defence, industries and other research organizations in Pune.</li> <li>• Internship arrangement for students in industries.</li> <li>• Creating entrepreneurship opportunities for students.</li> <li>• Leveraging ICT into Teaching-Learning process more effectively.</li> </ul>
3.4 Institutional Challenges:	<ul style="list-style-type: none"> <li>• Initiating PG programme in all departments.</li> <li>• Interfacing Industry-Institute interaction within the existing academic framework.</li> <li>• Creating a research and consultancy culture.</li> <li>• Attracting sponsored research projects from different agencies.</li> <li>• Deputing faculties for higher qualification with financial support.</li> </ul>

*Shiv*

**Section IV: Recommendations for Quality Enhancement of the Institution**

- Higher number of PhD qualified senior and middle level of faculty members are needed to be inducted in all departments.
- Initiating research and consultancy culture in all departments.
- More research papers, both in National and International journals, need to be published.
- More value-addition programmes for the students need to be offered.
- Both central and departmental Library budgets need to be increased.
- Students should be encouraged to work for local community upliftment.
- Career management of both Teaching and Non-Teaching staff needs to be attended.
- Adhoc appointments need to be regularised wherever it is admissible.

I agree with the Observations of the Peer Team as mentioned in this report.

*[Signature]*  
Principal  
12/8/2010

Signature of the Head of the Institution  
Dighi Hills, Pune-411015.



Signatures of the Peer Team Members:

Name and Designation		Signature with date
Prof. A Sridharan, Former Deputy Director & Advisor, IISc, Bangalore.	Chairman	<i>[Signature]</i>
Prof. VK Mahna, Former Professor & Dean, Delhi College of Engineering.	Member	<i>[Signature]</i> 12/8/2010
Prof. RB Ram, Dean, School for Bio Sciences & Bio Technology, BV Ambedkar, University, Lucknow.	Member	<i>[Signature]</i> 12/8/10

Place: Pune

Date: 12 Aug 2010