Annual Quality Assurance Report of the IQAC

Name of the Institution

Army Institute of Technology

Year of Report

2010-2011

Section A

Plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement

1) Placement of maximum students

2) Achieve results better than the University results

3) Conduct short term training programs

4) Up gradation of laboratories.

Section B

1. *Activities reflecting the goals and objectives of the institution*

   Goals and Objectives of the institution

   - To produce quality engineers

   - To impart state-of-the-art technical knowledge

   - To encourage overall development of the students

   - To increase intellectual, physical, emotional and spiritual strength of the students

   - To encourage the students for eligibility as global citizens

   - To inculcate the fundamentals of work ethics in order to produce morally responsible technocrats.

   Activities taken up

   Teaching-learning activity is completely focused from the view-point of academic excellence.

In addition to curricular inputs, co-curricular inputs are given to students in the form of guest lectures from outside experts, arranging industrial visits, etc.

Students are encouraged and guided for taking up projects/technical paper work, obtaining inputs from co-curricular resources.

Various extra- and co-curricular clubs are formed in the institute for accommodating varying interests of the student community. Some examples are: cultural club, spiritual club, astronomy club, mathematics club, robotics club etc.

Various sports facilities are provided to the students.

Various technical and extra-curricular competitions are arranged throughout the year.

Weekly meeting of all heads of departments with Director/Principal are held to monitor all the above mentioned activities.

2. *New academic programs initiated (UG and PG)*

   NIL

3. *Innovations in curricular design and transaction*

   We follow the syllabi designed by University of Pune. The university revises the same from time to time and communicates to the affiliated colleges.

4. *Inter-disciplinary programs started*

   NIL

5. *Examination reforms implemented*

   We follow the examination schedule and pattern dictated by University of Pune.

6. *Candidates qualified: NET/SLET/GATE/CAT etc.*

   1) Department of Mechanical Engineering: Three appeared for GATE and two for GRE.

   2) Department of Computer Engineering: Ten appeared for GATE

   3) Department of Electronics &Telecom. Engg.: Three appeared for GATE two for CAT

   4) Department of Information Technology: One appeared for GATE two for CAT

7. *Initiative towards faculty development programme.*

   The institute encourages the faculty to enhance their skills and knowledge by participating in various conferences, seminars and workshops. A good number of faculty participated in the WIPRO MISSION 10 X program this year.

   1) Department of Mechanical Engineering: Eight Staff members either attended or presented papers in eight conferences.

   2) Department of Computer Engineering: Eight Staff members attended eleven different faculty development programs.

   3) Department of Electronics and Telecommunication Engineering: Forty two Workshops/Conferences Attended by staff, eleven papers were published in national and four in international journals.

   4) Department of Information Technology: Nine faculty members attended six faculty development programs.

   5) Department of Applied Sciences and General Engineering: Two conferences papers were presented and five faculty attended eleven conferences.

8. *Total number of seminars/workshops conducted*

   1) Department of Computer Engineering

      Total number of seminars/workshops conducted: 07

2) Department of Electronics and Telecommunication Engineering

Two workshops and nine seminars were conducted.

3) Department of Information Technology

Three programs were conducted

9. *Research projects a) Ongoing; b) Completed*

1) Department of Electronics and Telecommunication Engineering

Ongoing - 03, Completed- NIL

2) Department of Applied Science and General Engineering

Ongoing – 02, Completed -01

10. *Patents generated, if any*

1) Department of Mechanical Engineering

Amit Kumar, Raju Pal, Gary Rohan Singh (B E Mech):

Filed an application for patent on 'Regenerative Braking Using Super Capacitor' P. No. 843/MOM/2011.

11. *New collaborative research programmes*

1) Department of Computer Engineering has two collaborative research programmes with

a) PROPALM and Sensitive N/w Ltd

b) IIT, Bombay

12. *Research grants received from various agencies*

1) Department of Electronics and Telecommunication Engineering

Three faculty members received research grants from BCUD (Board of College and University Development, Pune university). One faculty member received research grant from IETE.

13. *Details of research scholars*

Not Applicable. As the institute run only undergraduate programs.

14. *Citation index of faculty members and impact factor*

NIL

15. *Honors/Awards to the faculty: National and International*

NIL

16. *Internal resources generated*

1) Department of Mechanical Engineering

Fluid Engg, Metallurgy and Metrology, Heat Transfer, Thermal Engg, and CAD Labs were up graded.

2) Department of Computer Engineering: a) College Website b) Maintenance cell- Maintenance of Computer Hardware and software installations of all departments and support units.

3) Department of Applied Sciences and General Engineering: Chemistry and Electrical Engineering Lab was renovated.

4) Department of Electronics and Telecommunication Engineering : Computer Systems lab, Digital and microprocessor lab, Electronics system design and mini-project lab, Power and network lab, Basic electronics lab and Audio-video lab were upgraded.

17. *Details of departments getting assistance/recognition under SAP, COSIST (ASSIST)/DST, FIST, and other programs*

NIL

18. *Community services*

NSS conducted various programs and community service activities like visits to orphanage, tree plantation, blood donation and Poster display (to discourage ragging). They also conducted programs for the benefit of the students like: Sessions on Art of Living and spoken English classes for students who were weak in English..

19. *Teachers and officers newly recruited*

Six faculty members were recruited during 2010-11.

20. *Teaching – Non-teaching staff ratio*

74 : 107 (1 : 1.45)

21. *Improvements in the library services*

The library has OPAC and its own server. The library server archives online resources. It has links to question papers, images of events and programs conducted at AIT. Library has enriched itself with NPTEL and many other digital videos. The library maintains a digital library section. The number of computers for OPAC and intranet access were increased.

22. *New books/journals subscribed and their value*

Addition of new books and subscription to magazine and journals is a continuous process at AIT. The library added 3169 books and subscribed to nine additional Journals.

23. *Courses in which student assessment of teachers is introduced and the action*
    Taken on student feedback

Student feedback is taken for all courses of all the departments.

   1. The feedback forms are compiled and feedback report is handed over to respective faculty member by the Head of Department.

2. The Head of Department counsels the faculty member for shortcomings, if any.

3. Appropriate corrective action is implemented by the faculty member, if required.

4. Corrective actions of general nature, if any, are also discussed during weekly meetings of all Heads of Department with Director/Principal.

24. *Feedback from stakeholders*

The feed back is obtained by the Placement Cell from the companies where the students get placed (past and present). Feed back from alumni and parents is also recorded. These feed back form an essential component for further improvements in training towards placement related activites. Constructive feedback have been received from: Tata Consultancy Services, Tata Motors Ltd, Synygy India Pvt. Ltd., iGATE Patni, Mu Sigma Business Solutions, Kirloskar Pneumatic Co. Ltd., Pune.

25. *Unit cost of education*

Rs 1,01,000 per year per student. (Rs 54,000 was the fee charged and Rs 47,000 was the subsidy provided by the parent organization Army Welfare Education Society (AWES)).

26. *Computerization of administration and the process of admissions and examination results, issue of certificates*

The administration and admission work has been computerized. The exam related process is carried out at two levels: (a) Institute level (b) University Level. The issue of certificates is done by the university.

27. *Increase in the infrastructural facilities*

One basket ball and one tennis courts were constructed adopting new technology. Lights were provided to the basket ball court. Volley ball court was redone. Better lighting was provided in the badminton court.

CCTV cameras have been installed at several places. Cafeteria, Drawing hall and Administrative offices were renovated. New drawing tables were procured. Exterior paints, resurfacing of roads and facelift of the reception area was carried out.

Also referring to para 28 below there has been increase in infrastructure accruing from technology up gradation.

28. *Technology up gradation*

1) ICT; Wifi internet connectivity provided in Library, Raman Theatre and Girls Hostel. Internet speed upgraded to 10mbps from 2mbps. Internet security upgraded by installing Firewall. Internet access has been provided to all staff.

2) Department wise technology up gradation is listed under para 27.

29. *Computer and internet access and training to teachers, non-teaching staff and students.*

In the last year additional fifty two computers were procured and forty new internet connections were given to Staff rooms/faculty members. Internet connectivity was increased from 2 mbps to 10 mbps.

30. *Financial aid to students*

TATA Merit Scholarship, Express Readers (South) Merit Scholarship, Merit cum Means Scholarship by AIT, Horizon (OPCEM) Scholarship (Needy Children), University Toppers AIT scholarship totaling Rs 11.3 lakhs. A total of 91 students were awarded.

Chief of Army Staff COAS All Round Best Student Rolling Trophy carrying an award of Rs 25000 was awarded.

Awards of Academic Excellence are given to the first ranker in academics in final year. Rs 1.8 lakhs are disbursed. The awards were given to nine students.

31. *Activities and support from the Alumni Association*

Placement Office maintains contact with the Alumni. Alumni meet once a year at the college. Our Alumni has been a great guiding force to our students. They have also contributed financially and the funds have been utilized to develop sports infrastructure. This year's activites of Alummni Association were-

    i) Helped students to get project work in companies like Indigo Architects, Propalms and Sensible Software.

    ii) Helped in bringing companies for campus recruitments like Tavisca, Druva Software, Propalms, Indigo Architects.

    iii) Conducted seminars/lectures on current trends and emerging technologies.

    iv) Provided Sponsorship for various technical competitions like Robocon and SUPRA SAE (Rs 50,000/-).

    v) Judged various competitions of College Cultural and Technical Festival.

    vi) Actively participated in Alumni Meet conducted in Sep. About 80 - 90 alumni took part in this activity.

    vii) Actively participated in "Amalgam," sports meet of Alumni Vs AIT students, conducted in Feb/Mar. Games involved were Cricket, Football, Badminton, Volleyball.

32. *Activities and support from the Parent-Teacher Association*

Parents being army personnel are posted in all parts of India and find it difficult to attend formal parent-teacher association meetings at the institute However, parents' support and co-operation is sought in the following ways:

i) Attendance record of students is communicated to their parents at the end of every month. In case of defaulter students, corrective action is taken with the help of parents.

ii) Whenever required, communication is established between parents and teachers, either on individual or on collective basis, to sort out the students' related issues.

iii) Parents also contact the college either telephonically or visiting as required.

iv) Parents are given access to the Student Information System (SIS) through which they can monitor their ward's progress and contact the Principal/teachers/councelors if required.

33. *Health services*

The students being wards of Army personnel are entitled to free medical care. There is an MI room and ambulances in readiness to carry the students to Military Hospitals in station in case of need.

34. *Performance in sports activities*

The college level sports are a very active affair generating lot of enthusiasm and energy and exhibiting a very competitive spirit. Also the college takes pride in holding an inter college sports event "PACE" which students from all colleges in Pune look forth to. The college does well in the inter college sports events and several events like basket ball and tennis bring laurels to the college.

35. *Incentives to outstanding sportspersons*

The university has provisions for such incentives for achievements at the state / national/ international levels. These are in the form of leave of absence for participation and addition of grades in the mark lists. Last year no student was recommended under this provision. However we encourage our students to participate at all levels of competitions.

36. *Student achievements and awards*

1) Department of Mechanical Engineering

Students participated in BAJA ASIA ATV(All Terrain Vehicles) competition held at NATRIP, Indore & won the first prize of Rs.60000 for low cost design.

Filed an application for patent on 'Regenerative Braking Using Super Capacitor' P. No. 843/MOM/2011.

Two students presented Technical papers in Conferences.

Organized mega workshop on SAE India for students from western section in Pune.

2) Department of Computer Engineering

Five students won positions in three different inter college technical competitions. A large number of students participated in 23 different technical, cultural curricular and extracurricular activities.

3) Department of Information Technology

Students took part in various programs like Group Discussion, C Contest, Debate, Poster Presentation, Paper Présentations, Quizzing, and Network Treasure Hunt.

4) Department of Electronics and Telecommunication Engineering17 Students took part in 33 various intercollege activities some of them winning first, second and third positions. 19 students took part in paper presentations, various workshops and industrial training.

37. *Activities of the Guidance and Counseling unit*

i) All classes are divided as per their practical batches (15-20 students per batch).

ii) One faculty member is appointed as 'batch counselor', with one senior faculty member as 'overall in-charge' for this activity.

iii) The counselors counsel the concerned students once in a month and keep the record of this interaction in counseling register kept with them.

iv) Academic as well as non-academic issues related with the students are discussed. Guidance is provided to them whenever required.

v) This forms a personal bonding between students and their counselor. In case of various types of problems, corrective action can be taken more easily with the help of counselor.

38. *Placement services provided to students (2010-2011)*

The placement cell is in existence with a full time highly experienced placement officer assisted by a personal secretary and a peon.

The total number of placement offers this year were 315, including Indian Army. Total percentage of placements achieved was 96.4% with pay packages ranging from 2 – 7 lakhs.

39. *Development programs for non-teaching staff*

Training programme on PRO-E Wildfire Software for staff & students was arranged.

Faculty members informally impart training to non-teaching staff regarding MS OFFICE, AUTOCAD, PRO-E WILDFIRE, ANSYS, CNC Programming etc.

40. *Good practices of the institution*

The institution provides quality education and encourages all round development of students by way of providing avenues in the form of various activities and competitions. Various clubs are in existence. Monthly attendance of students is monitored and communicated to parents. Similarly the attendance is also displayed on notice board and website. Mid-semester exam is conducted for each subject and result displayed on notice boards and communicated to parents.

Selected students from each department are permitted to attend internships with industries so that they get more exposure of industrial environment.

Eminent personalities from various industries are invited as guest lecturers so that students are exposed to current scenario in industries.

41. *Linkages developed with National/ International, academic/research bodies*

There has been an increase in interactions with the industry. Students went on industrial visits. Industry also interacted with students, staff and management by visiting the institute and delivering lectures. Our faculty and students visited NIITS, IIT's, IISER's, IUCAA and other important academic and research institutes for projects, paper presentations, discussions seminars or visits.

An M.O.U with Shri Rayeshwar Institute of Engineering and Information Technology (RIT), Shiroda, Goa was signed.

42. *Action Taken Report on the AQAR of the previous year*

Our institute was re-accredited last year and steps are being taken to overcome some of the weaknesses pointed out in the Peer team report.

Two senior PhD qualified Professors have joined the institute in the last year.

Sufficient budget has been provided for library.

Efforts are being made to obtain consultancy and further improve industry-institute interaction.

Few students from each department were sent on internships during the semester break.

43. *Any other relevant information the institution wishes to add*.

There has been increase in intake in the E&TC branch by sixty students.

Few faculty members published textbooks covering subjects under Pune University syllabus.

The college brings out its own magazine "Srijna".

AIT has various clubs functioning. These clubs provide an informal atmosphere wherein they learn and share and indulge in various hobbies. The Tech Akriti event is an inter branch competition which brings out the best in the technical spectrum. PACE is an inter college sports event managed by the students. These competitions in addition hone their technical and managerial and organizational skills.

Students go on educational tours and participate in various inter college cultural festivals.

Students celebrate various festivals and organize community feasts.

Section C

Outcomes achieved by the end of the year

Academic performance of passing out students 2011 batch

	Mechanical	Computer	E&TC	IT
Total Appeared	55	59	56	57
Distinctions	30	9	19	8
First Class	14	32	26	27
Passing %	89	88	96	74

Placement : The total number of offers were 315, including Indian Army. Total percentage of placements achieved in the last year was 96.4% with pay packages ranging from 2 – 7 lakhs.

Above Outcomes conform well with our Goals and Objectives and are in line with the requirements of our stakeholders.

Section D

Plans of the HEI for the next year

(a) We plan to start some value-addition programmes for students after regular college hours to enhance their employability potential.

(b) Institute plans to increase Industry- Institution interaction with the objective of improving research and consultancy, increasing the number of sponsored projects, student internships and quality placements.

(c) It is planned to establish a Centre of Excellence in collaboration with

 (a) Eaton Mfg. Co Ltd.

(b) Hyperworks

(c) Technophilia Systems Pvt. Ltd. along with iCarnegie Inc.

(d) We are in the process of applying for permanent affiliation with Pune University.