# **Army Institute of Technology**

### Criteria 6.5.3 Quality assurance initiatives of the institution

List of Collaborative quality initiatives with other institution(s)

Year	ear Collaborative quality initiatives with other institution(s)				
	(Provide name of the institution and activity)				
	Seminar on "career strategy-creating your own personal brand by Ms.Snehal Sarkar, Master Life coach and corporate Trainer, Mind Mantras	2-5			
2019-20	"VLSI Chip design Hands on using open sourc EDA "in collaboration with IIT Guwahati and MNIT Jaipur	6-13			
	"ICT tools for Teaching Learning Process and Institutes" in collaboration with IIT Guwahati , MNIT Jaipur, NIT Patna, NIT Warangal	14-22			



## Army Institute of Technology

Dighi Hills, Alandi Road, Pune-411015

# Seminar on **Career Strategy-Creating your own Personal** Brand

### **Resource Persons**



Ms. Snehal Sarkar Master Life Coach & Corporate Trainer





Mon, 23rd Sep 2019



fb.com/aitpune

## **Snehal Sarkar**



She is a Certified Master Life Coach from the American University of NLP and a Corporate Trainer with close to 15 years of management experience in hospitality and training with, leading global brands like ITC Ltd., Accor Hotels and Bharat Forge Ltd. in India and Canada.

As the Founder of Mind Mantras, an organizational development venture, she offers group workshops and one-on-one sessions and has initiated a transformation in more than 7000 professionals and students across industries in the last three years. She has led multiple Business Communication sessions for Cognizant Technologies, Sunguard Availability Services and Reserve Bank of India and is a Corporate Etiquette Coach for Senior Managers of Bharat Forge and its subsidiaries. She is a Job Search Strategy Coach and enables students and young professionals to create a Career Strategy. She is also a visiting faculty for the M.E and B.E students at the Army Institute of Technology (AIT), MIT, PCCOE and other colleges affiliated to Pune University. She is associated with the Department of Management Studies, (PUMBA) for the last 4 years as a faculty for Business Communication as well as Campus Recruitment Training. As a member of MCCIA she got the exposure to partner with organisations on various NSDC skills development projects for the youth in rural Maharashtra.

Having completed her **Post Graduation in HR** from Pune, she specialized in Training and Development from Toronto. She was awarded the **Prime Minister's scholarship** for **All India First Rank in Business Communication** in the National Council for Hotel Management, Ministry of Tourism. She has been associated with several elite VIP visits such as former president, **Bill Clinton and PM Shri Atal Bihari Vajpayee, Mr. Bill Gates**, Mr. Naresh Goyal, Mr. Azim Premji among many other C level Executives, dignitaries and celebrities which honed her management and communication skills.

She enjoys creative writing and was selected as the winner of the Voice of HR contest in Times of India, Ascent in Mar 2014 and has recently Co-Authored an **E-book** for Children.

**Some Esteemed Clients:** Cognizant Technologies, CIBIL, Sunguard Availability Services, Bharat Forge Ltd., Chavan Group of Companies, Sancheti Hospital, Ruby Hall Clinic, The Potter's Earth, Pune University, Army Institute of Technology, RIMT Islampur.

**Training Forte:** Effective Business Communication, Corporate Etiquette, Cultural Sensitivity, Customer Service Excellence, Stress and Time Management.

**Student Centric Programs:** Designing a Job Search Strategy, Business Communication, Group Discussion Techniques, Interview Preparation, Presentation Skills, Campus to Corporate.

### **Clients Testimonials:**

"My one on one session guided me in identifying my strengths, I was made to feel comfortable yet I was pushed to stay on track towards my goals. It was my help desk when it came to brainstorming career decisions."

- Associate Project Director, TNS Global
- "The workshop was a wake -up call for us since we thought we had mastered some of these skills. Training was interactive and coherent, with real life examples and activities that kept us involved."
- Business Analyst, Cognizant Technologies Ltd.
- "Highly interactive session. Very useful as it brought to our attention the small nuances we were missing out. Liked the explanation of the subject with practical role plays"
- Senior Management, Bharat Forge Ltd.
- "Snehal with her detailed discussion on minutest of sections helped us in enhancing our readiness for a launch pad to our corporate career. Mock sessions have been very insightful and helpful."
- Student, Dept. Of Management Studies, Pune University (PUMBA)

FOR MORE DETAILS: Visit our website, http://mindmantras.net/
Receive updates on our facebook page: https://www.facebook.com/MindMantras

### MINUTE SHEET

18-9-2019

Case No: AIT/IT/1357/Guest Lecture

Sheet No: 01

### Please refer a note-

- 1. It is proposed to conduct a Guest Lecture by Ms. Snehal Sarkar, Certified Master Life Coach & Corporate Soft Skills Trainer. The details are as follows,
  - Guest Speaker Ms. Snehal Sarkar

    Certified Master Life Coach & Corporate Soft Skills

    Trainer
  - Title of Talk "Career Strategy Creating your own Personal Brand"
     Day and Time Monday, 23rd September 2019, by 2:30 pm to 04.00 pm
  - Audience
     Venue
     SE & TE of IT department
     BCJ Hall
- 2. It is requested to kindly issue a cheque of Rs.2000/- in favour of SNEHAL MAZAGAONKAR, against the remuneration of Guest Lecture.
- 3. Profile of the speaker is placed opposite.
- 4. For the same the generator backup is required in case of power failure from 2.00 pm to 04.15 pm on 23rd September 2019.
- 5. Put up for your kind perusal and approval please.

(Dr.Mrs.Sangeeta Jadhav)

HOD IT

# Department of Electronics and Telecommunication

- 1. E&ICT academy IITDM Jabalpur is one of the 7 IITs from a group of institutes set up by Ministry of Electronics and Information Technology (MeitY), Govt. of India for conducting winter courses in core areas of Electronics and Information Technology.
- 2. The FDP titled "VLSI Chip Design Hands on using Open Source EDA" is scheduled from 16th Dec 2019 to 20th Dec 2019. The details of FDP are attached at FLAG 'A'.

3. Department of Electronics and Telecommunication has agreed to host the same at Army

4. The FDP is free and minimum participation required to conduct the same is 30.

5. The total cost of FDP is approx. Rs. 45000/- which includes breakfast, tea, lunch and stationary. The amount along with overhead charges will be reimbursed by IITDM.

6. IITDM will also give remuneration to the institute, coordinators, and technical staff involved in the FDP. The details of the same will be provided later by IITDM.

7. Details of requirements to conduct the FDP are placed at FLAG 'B'.

8. Put up for perusal and approval pl.

Dr. Surekha KS (191 Prof. Avinash patil Coordinators

Army Institute of Technology Dighi Hillis, Pune - 411015

	(	MAIN OFFICE
S :	? ;	4139
Dt		6/12
Sig	n	DH

Principal Office Dt





Ministry of Electronics & Information Technology



Government of India Initiative for Employability Enhancement

Passionate Academicians for Future Generation

Faculty Training
Training and Consultancy
Services for Industry
Technical Incubation and Entrepreneurally
Continuing Education for Students & Professionals

IIT Guwahati

















India is fast emerging as a world power in Information, Communications Technology and Electronics (ICTE) sectors. To complement its growth and further development, there is an ever-increasing need for trained professionals with specialization in this space. This includes training of professionals not only in existing and changing technologies but also in the fields of R&D and electronics manufacturing. This will specifically be aimed at the ICTE sector to create a substantial resource pool of talent and generate ample opportunities for entrepreneurs. Ministry of Electronics & Information Technology (MeitY) has approved a scheme and setup Electronics and ICT Academies at 07 (seven) Institutions viz. IIT Guwahati, IIT Kanpur, NIT Warangal, NIT Patna and IIITDM Jabalpur (all five under Category-A); and IIT Roorkee, MNIT Jaipur (both under Category B). The Ministry had earlier setup two ICT Academies at Tamil Nadu and Kerala respectively. Estimated cost and largets for the Electronics and ICT Academy in the two Categories for a period of four years are as under:

Category	Total Outlay	Internal Revenue Generation	Grants-in-Aid from Central Government	Training Target (Faculty members)
Category-A	Rs. 25 crore	Rs. 7.50 crore	Rs. 17.50 crore	16,000
Category-B	Rs. 10 crore	Rs. 3.00 crore	Rs. 7.00 crore	6,400

These Academies are aimed at faculty/mentor development and upgradation to improve the employability of the graduates, diploma holders in various streams, through collaboration of States/Union Territories. Each Academy is being provided funding support for four years and is expected to generate revenue by charging fee and taking up other activities to meet the recurring cost in a gradual manner and become self-sustainable by the end of fourth year onwards. All these Academies will cater to the requirements of identified neighbouring States and UTs also. Brief information about all the Academies is available at: https://meity.gov.in/esdm/scheme-financial-assistance-setting-electronics-and-ict-academies

### **Activities of the Academies**

- Faculty development for
  - Specialized training with hands-on on basic and advanced level topics for Engineering streams and
  - Domain based training on use of ICT tools and techniques for non-engineering streams
- Training and consultancy services for industry
- Curriculum development for industry
- Continuing Education programme for students / working professionals
- Design, Develop and Deliver specialized modules for specific research areas
- Providing advice and support for technical incubation and entrepreneurial activities

### **About Winter Courses**

Faculty Development Programmes in core areas of Electronics and Information & Communication Technology (ICT) streams have been planned by academies for delivery during Winters (i.e., Dec'19—Jan'20). All these Winter courses will be offered through National Knowledge Network (NKN) based video Conferencing, with lectures delivered by invited experts from IITs, NITs, IIITs and other premier institutes/industries. In addition, local course coordinators at respective academies /identified remote centres will take care of sessions on design orientation/activity linked problems/ assignments/ case studies and quiz test(s). All the participants simultaneously alongwith some select remote centres all over our country, through NKN-VC infrastructure. Candidates could attend the training programme at Academy locations or at identified remote centres as per the convenience. For registration participants need to apply to one of the Academies, however, they can attend the training programme at that Academy or any remote centre attached to that respective Academy, please refer to respective academy websites.

#### How to apply:

- A duly filled in application form in the prescribed form signed by the Head of the Institute to which the candidate belongs (slong with demand draft/CBS-Cheque) should reach by post to the local coordinator of the participating academy.
- Government of India norms will be followed for SQ/ST category participants.
- The application form along with the DD/GBS-Chaque can also be submitted in the online mode to Local Coordinator of the respective academy.

Note: Refer offering Academies websites for complete postal address and other details of Virtue courses.

Principal Army Institute of Technology Dighi Hillis, Pune - 411015

Following are the programmes being offered in this Winters, Dec 2019- Jan 2020, each of 5 days duration.

S.No.	Course Name	Principal Coordinating Academy	Go-Principal Geordinating Academy	Starting date of Programme	Last date of receiving applications
1	Python Programming with Industry perspective	MNIT Jaipur Dr. E. S. Pilli	NIT Patna Dr. Bharat Gupta	2 Dec 2019	25 Nov 2019
2	Deep Learning and Applications	IIITDM Jabalpur Prof. Aparajita Ojha	NITW Prof. R. B. V. Subramanyam	9 Dec 2019	2 Dec 2019
3	VLSI Chip Design Hands on using open source EDA	IIT Guwahati Dr. Gaurav Trivedi	MNIT Jaipur Prof. Vineet Sahula	16 Dec 2019	9 Dec 2019
4	Al & Machine Learning	IIT Roorkee Prof. Sanjeev Manhas	MNIT Jaipur Dr. S. J. Nanda	23 Dec 2019	16 Dec 2019
5	Natural Language Processing (NITP+IIITDMJ/MNITJ)	NIT Patna Dr. J. P. Singh	IIITDM Jabalpur Prof. Atul Gupta	6 Jan 2020	23 Dec 2019
6	ICT Tools for Teaching, Learning process & Institutes	MNIT Jaipur, IIITDM Jaba Guwahati, NIT Warangal (All Academies)	alpur, NIT Patna, IIT	13 Jan 2020	6 Jan 2020

Target Beneficiaries:

Interested Faculty of engineering/technical institutions are eligible to attend these Winter courses.

ability of seats at each offering Academy:

Finy (50) seats are available for each course to be offered at each Academy/Remote Centre. Participants will be selected based on first-cum-first-serve basis by each academy. Selected participants will be communicated through e-mail / notified in E&ICT Academy websites.

Each course is designed as 3 credit equivalent for 40 hours (Theory Lectures, Hands-on/Design orientation/Activity linked problems/Assignments Problem Solving/Case Studies sessions/Quiz Tests)

Accommodation & Travel

Boarding and Lodging at Hostels/Guest House will be provided at free of cost only at Identified E&ICT Academies. For details please refer to respective Academy websites. At identified Remote centres only working lunch and snacks will be provided. No Travel Allowance will be paid to the participants. Registration Fee for each Winter Course:

No Registration fee is charged for attending this programme planned at any designated academies/Remote centres. However, candidate should submit a Demand Draft/ CBS-Cheque of Rs.1000/- along with application form and the same will be handed over to the participant on the last day of the training. Certificate for participation as well as for Satisfactory performance will be given to the participants subject to fulfillment of attending all sessions, submission of assignments and clearing the test(s).

### Mode of Payment:

Academy Name	Payment through DD/CBS-Cheque
IIT Guwahati	Demand Draft in favor of "Registrar, IIT Guwahati" Payable at Guwahati
IIITDM Jabalpur	Demand Draft in favor of "Electronics and ICT Academy, IIITDMJ" payable at Jabalpur
MNIT Jaipur	Demand Draft in favor of "Electronics and ICT Academy, MNIT Jaipur" Payable at Jaipur
Kanpur	Demand Draft in favor of "Director, IIT Kanpur" Payable at Kanpur
NIT Patna	Demand Draft in favor of "Director, NIT Patna" payable at Patna
IIT Roorkee	Demand Draft in favor of "Dean SRIC IIT Roorkee" payable at Roorkee
NIT Warangal	Demand Draft in favor of "Electronics and ICT Academy, NITW" payable at NIT Warangal

- Last Date for Submission of Applications is Monday of earlier week from the start date of respective programme.
- The intimation of Selection for participation will be posted on website on Wednesday of previous week.



# The following are the details of Winter courses being offered during Dec'19 –Jan'2020 1: Python Programming with Industry perspective 2 – 6 Dec 2019

Prospective external Experts- (i) Dr. Mani Madhukar, Program Manager - University Relations, IBM India Pvt. Ltd Experts from host institutes- (ii) Dr. E. S. Pilli,

# Contents of Python Programming with Industry Perspective

S.No	Module Name	
		Topics
1.	Introduction & basics of to Python Programming:	History of Python, Installing Python, Executing Python Programs, Internal Working of Python, Python Implementations. Python Character Set, Token, Python Core Data Type, print() function, Assigning Value to Variable, input() function, eval() function, Formatting Number and Strings, Operators and Expressions
2.	Decision Statements; Loop Control Statements; Functions, Strings	Boolean Type, Boolean Operators, Using Number and Strings with Boolean Operators, Decision Making Statements and Conditional Expressions While loop, range() Function, For Loop, Nested Loops, Break Statement, Continue Statement Syntax and Basics of a Function, Use of a function, Parameters and Arguments, Local and Global Scope Scope of a Variable, return statement and Recursive Functions. str class, Inbuilt functions for String, index[] operator, traversal of String, String operators, String Operations
3.	Lists and Dictionaries; Tuples and Sets; File Handling; Pandas	Creating Lists, Basic list operators, Slicing, Inbuilt functions for Lists, List operator, List Methods, Splitting, Need of Dictionary, Creating a Dictionary, Adding and Replacing Values, Retrieving Values; Deleting Items and Traversing Dictionaries.  Tuples and Sets: Creating Tuples; Tuple () Function, Inbuilt Functions for Tuples, Indexing and Slicing; Operations on Tuples; Traverse Tuples from a List, Set operators; Set class.  Object-Oriented Programming: Classes and objects, methods, Operator Overloading, Inheritance, super () and Method Overriding.  File Handling: Need of File Handling, Reading/Writing Text and Numbers to/from a File; Directories on a disk.  Pandas: Using Pandas, the python data analysis library and data frames
4.	Data Handling and Use Cases	RE Pattern Matching, Parsing Data, Introduction to Regression, Types of Regression, Use Cases, Exploratory data analysis, Correlation Matrix, Visualization using Matplotlib and Implementing linear regression.
5.	Machine Learning	Machine Learning - Algorithm, Algorithms - Random forest, Super vector Machine, Random Forest, Build your own model in python and Comparison between random forest and decision tree.

Principal Coordinator = Academy	Go: Principal Coordinator - Academy	Participating Academies and Local Coordinator Details
Dr. E. S. Pilli espilli.cse@mnit.ac.i n_M: 954 965 8131 MNIT Jaipur	Dr. Bharat Gupta bharat@nitp.ac.in Mobile:93314 06964 NIT Patna	IIITDM Jabalpur- Dr. Atul Gupta, M: 9425152499 Phone:+761-2794223 Email: atul@iiitdmj.ac.in
		MNIT Jaipur - Dr. Dinesh Tyagi & Dr. Yogesh Meena, dktyagi.cse@mnit.ac.in, M: 9549658130, ymeena.cse@mnit.ac.in, M: 9461306647
		NIT Patna- Dr. Mukesh Kumar, & Dr. Somaraju Suvvari, mukesh.kumar@nitp.ac.in M: 8984142557, somaraju@nitp.ac.in , M: 9676430356



# 2: Deep learning & and applications

Prospective external Experts- (i) Industry support from NVidia, MathWorks (MATLAB) (ii) Dr. Anupama Ray, IBM (iii) Dr. Ritu, Experts from host institutes- (iii) ) Prof. Aparajita Ojha, IIITDMJ (iv) Dr. Santosh Vipparthi, MNITJ

# Contents of modules of Deep Learning & Applic

S.No.	Module Name	Learning & Applications
1.	Introduction to Machine Learning & Artificial Neural Networks	Overview of machine learning, Supervised and unsupervised learning, Artificial Propagation algorithms, Regularization and Optimization. Difference between Practice Session: Introduction to Buthers.
2.	Convolutional Neural Networks	Practice Session: Introduction to Python Programming, Tensorflow and Keras.  Making a Neural Network, training and testing. Saving the best weights and mode maps, CNN as a feature extractor, Some Standard CNN architectures like Practice Session: Building a CNN model, CNN for image classification. Using Google Colab for building and training Deep Learning Medical Color Described Practice Session: Building and training Deep Learning Medical CNN Medical CNN model.
3.	Autoencoders and Generative Adversarial Networks	Autoencoders (AEs), Undercomplete and Overcomplete AE, Convolutional AE, Regularization, Sparsely regulated AEs, Denoising and Stacked AE. Generative Practice Session: Using pretrained of GAN.
4.	Recurrent Neural Networks	Brief Introduction to Recurrent Neural Networks, LSTM, GRU and their applications in machine translation, language modelling and sentiment classification.  Practice Session: Building an Alegalization.
5	CNN Application to Classification and Detection problems	from travel\hotel website user feedback data.  Object detection algorithms, R-CNN, Faster R-CNN, YOLO and SSD. Hands on-Object detection.  Practice Session: Installing Darknet framework on your laptop, how to use YOLO for object detection.

Principal Goordinator - Academy	Go-Principal Goordinator - Academy	Participating Academies and Local Coordinator Details
Prof. Aparajita Ojha aojha@iitdmj.ac.in M: 9425800334 IITDM Jabalpur	Prof. R. B. V. Subramanyam eict.nitw@gmail.com M: 091210 16547 NIT Warangal	IIITDM Jabalpur- Dr. Irshad Ansari, Email: irshad@iiitdmj.ac.in M: 9109106995; Phone: +761-2794478;
		MNIT Jaipur - Dr. Santosh Vipparthi & Dr. Ramesh Battula, MNIT Jaipur skvipparthi@mnit.ac.in, M: 954 965 8135 rbbattula.cse@mnit.ac.in, M: 954 9654 395; NIT Patna - Dr. Subodh Srivastava, & Dr. Rajib Ghosh subodh@nitp.ac.in M: 7565036892, rajib.ghosh@nitp.ac.in M: 8084023813 NIT Warangal- Prof. R. B. V. Subramanyam eict.nitw@gmail.com, M: 091210 16547



# ECT Academy, IIITDM, Jabalpur: Winter NKN Course (FDP) (An Initiative of Ministry of Electronics IT, Government of India)

## Participant List

College Name : Army Institute of Technology, Pune

PDP Name with Date: "VLSI CHIP DESIGN HANDS ON USING OPEN SOURSE EDA"

,	Name	Faculty/		OR USING OPEN SOURSE EDA" (16/12/2019 - 20/13			
4		Student/ Others	Male/Female	Category (8C/8T/	Institution		
-	Mr Jagtap D V	Faculty	Male	OBC/URI		Mobile No.	
2	Ms. Dhanashree Patil	Faculty		UR	DYPIET,Ambi, Pune	9527633604	
3	Mr. J B Jawale	Paculty	Female	UR	Army Institute of Technology, Pune	9403565462	
4	Mr Vijaykumar Karra	Faculty	Male	UR	Army Institute of Technology, Pune	9923565542	
5	Mr. Girish Kapse		Male	UR	Army Institute of Technology, Pune	9823256569	
6	Ms. Pragati Rana	Faculty	Male	UR	Army Institute of Technology, Pune	8793394705	
7	Mr D G Auradkar	Faculty	Female	UR	Army Institute of Technology, Pune	8878636261	
8	Mrs. Preeti Warrier	Faculty	Male	UR	Army Institute of Technology, Pune	9422300730	
9	Ms. Snehal Marathe	Faculty	Female	UR	Army Institute of Technology, Pune	9325095944	
		Faculty	Female	UR	Army Institute of Technology, Pune		
10	Dr. Surekha K S	Faculty	Female	UR	Army Institute of Technology, Pune	9604225393	
11	Mr. Avinash Patil	Faculty	Male	UR	Army Institute of Technology, Pune	9422356483	
12	Dr. Rahul Desai	Faculty	Male	UR	Army Institute of Technology, Pune	9823678051	
13	Dr. G R Patil	Faculty	Male	UR	Army Institute of Technology, Pune	9284234918	
14	Mrs. Rajashree Suryawansh	i Faculty	Female	UR		9422510862	
15	Dr. Harjeet Kaur	Faculty		UR	Army Institute of Technology, Pune	9423913847	
16	Dr. P B Karandikar	Faculty		UR	Army Institute of Technology, Pune	7798777110	
17	Ms. P A Bhosale	Faculty			Army Institute of Technology, Pune	9420427741	
18				UR	D Y Patil, IOT, Pimpri, Pune	9960599324	
-		Faculty	<del>                                     </del>	UR	Army Institute of Technology, Pune	9420061004	
19		Faculty	<del></del>	UR	Army Institute of Technology, Pune	9923298051	
20	- Fu. unu	Faculty	Female	UR	Army Institute of Technology, Pune	9975792033	
2	- Joeda , ada	Faculty	Female	UR	Army Institute of Technology, Pune	9158368567	
2	- Suitouc	Faculty	Male	UR	Army Institute of Technology, Pune	9822666427	
2	3 Mr.Kishor Bhangale	Faculty	Male	UR	DYPCOE Akurdi,Pune	7709710711	
2	4 Mr.R B Gurav	Faculty	Male	UR	Army Institute of Technology, Pune	7350057110	
2	5 Dr.Rashmi Mahajan	Faculty	Female	UR	D Y Patil School of Engg.Lohegaon, Pune	9225117803	
2	Mr. Vishal Katekar	Faculty	y Male	UR	Dr DY Patil school of Engg. & Tech, Lohegaon, Pune	8888805756	
2	Mr.Samleti D Sandeep	Facult	y Male	UR	Army Institute of Technology, Pune	8007000879	

Principal Army Institute of Technology Dighi Hillis, Pune - 411015

### College Name : Army Institute of Technology, Pune

FDP Name with Date: "VLSI CHIP DESIGN HANDS ON USING OPEN SOURSE EDA" (16/12/2019 - 20/12/2019)

No	Name	Faculty/ Student/ Others	Male/Female	Category (SC/ST/ OBC/UR)	Institution	Mobile No.
28	Dr. Anil Wanare	Faculty	Male	UR	JSPM B.S institute of Technology and Research, Pune	735000870
29	Mrs.Sushama Shirke	Faculty	Female	UR	Army Institute of Technology, Pune	914604118
30	Mrs.Rushali Patil	Faculty	Female	UR	Army Institute of Technology, Pune	992299803
31	Mr Pratik D.Shah	Faculty	Male	UR	D Y Patil School of Engg, Lohegaon Pune	
32	Mrs. Sujata Kadam	Other	Female	UR	Army Institute of Technology, Pune	
33	Ms. Jyoti Taralkar	Other	Female	UR	Army Institute of Technology, Pune	982252134

PUNE 411015 C Arms on Technology
Log makes une - 411015

160

### Minute Sheet

Sheet No 01

	ment of Right	011001110,01
1.	E&ICT academy IITDM Jabalpur is one of the 7 IITs from a group of winter courses in core areas of Electronics (Meity), Goyt, of	<u>on</u>
	Ministry of Electronics and Information Technology (Meity), Govt. of The FDP titled "ICT Tools of the Tools o	
	winter courses in core areas of Electronics and Information Technology (MeitY), Govt. of The FDP titled "ICT Tools for Teaching Learning Pressure 13th Jan 2020 to 15th Jan 2020	f institutes set up by
2.	The FDP titled "TOTA"	India for conducting
_	from 13th Jan 2020 to 124	
3.	The FDP titled "ICT Tools for Teaching Learning Process and Ins from 13th Jan 2020 to 17th Jan 2020. The details of FDP are attached at	titutes" is scheduled

Institute of Technology. The FDP is useful from the point of view of NBA. onics and Telecommunication has agreed to host the same at Army

4. The FDP is free and minimum participation required to conduct the same is 30. 5. The total cost of FDP is approx. Rs 45000/- which includes breakfast, tea, lunch and stationary. The amount along with overhead charges will be reimbursed by IITDM.

IITDM will also give remuneration to the institute, coordinators, and technical staff involved in the FDP. The details of the same will be provided later by IITDM.

7. Details of requirements to conduct the FDP are placed at FLAG 'B'.

8. Put up for perusal and approval pl.

Dr. Surekha KS (24/12/19)
Prof. Avinash patil
Coordinators

Advired M

201/11/11/2011 Plane evene marimpe aunohola i John . Admirtie 2. This is a vary good module.

Dr Smeline to bout me on 01/1/10.

Princip 2,012/4 Dighi Hillis, Pune - 411015

winc Offi No.

Sign

MAIN OFFICE

4281

26 12

DH

Dt

Sign





Ministry of Electronics & Information Technology



Government of India Initiative for Employability Enhancement

Passionate Academicians for Future Generation



IIT Guwahati

















India is fast emerging as a world power in Information, Communications Technology and Electronics (ICTE) sectors. To complement its growth and further development, there is an ever-increasing need for trained professionals with specialization in this space. This includes training of professionals not only in existing and changing technologies but also in the fields of R&D and electronics manufacturing. This will specifically be aimed at the ICTE sector to create a substantial resource pool of talent and generate ample opportunities for entrepreneurs. Ministry of Electronics & Information Technology (MeitY) has approved a scheme and setup Electronics and ICT Academies at 07 (seven) Institutions viz. IIT Guwahati, IIT Kanpur, NIT Warangal, NIT Patna and IIITDM Jabalpur (all five under Category-A); and IIT Roorkee, MNIT Jaipur (both under Category B). The Ministry had earlier setup two ICT Academies at Tamil Nadu and Kerala respectively. Estimated cost and largets for the Electronics and ICT Academy in the two Categories for a period of four years are as under:

Category	Total Outlay	Internal Revenue Generation	Grants-in-Aid from Central Government	Training Target (Faculty members)
Category-A	Rs. 25 crore	Rs. 7.50 crore	Rs. 17.50 crore	16,000
Category-B	Rs. 10 crore	Rs. 3.00 crore	Rs. 7.00 crore	6,400

These Academies are aimed at faculty/mentor development and upgradation to improve the employability of the graduates, diploma holders in various streams, through collaboration of States/Union Territories. Each Academy is being provided funding support for four years and is expected to generate revenue by charging fee and taking up other activities to meet the recurring cost in a gradual manner and become self-sustainable by the end of fourth year onwards. All these Academies will cater to the requirements of identified neighbouring States and UTs also. Brief information about all the Academies is available at: https://meity.gov.in/esdm/scheme-financial-assistance-setting-electronics-and-ict-academies

### **Activities of the Academies**

- · Faculty development for
  - Specialized training with hands-on on basic and advanced level topics for Engineering streams and
  - Domain based training on use of ICT tools and techniques for non-engineering streams
- Training and consultancy services for industry
- Curriculum development for industry
- Continuing Education programme for students / working professionals
- Design, Develop and Deliver specialized modules for specific research areas
- Providing advice and support for technical incubation and entrepreneurial activities

### **About Winter Courses**

Faculty Development Programmes in core areas of Electronics and Information & Communication Technology (ICT) streams have been planned by academies for delivery during Winters (i.e., Dec'19 - Jan'20). All these Winter courses will be offered through National Knowledge Network (NKN) based video Conferencing, with lectures delivered by invited experts from IITs, NITs, NITs and other premier institutes/Industries. In addition, local course coordinators at respective academies /identified remote centres will take care of sessions on design orientation/activity linked problems/ assignments/ case studies and quiz test(s). All the participants simultaneously alongwith some select remote centres all over our country, through NKN-VC infrastructure. Candidates could attend the training programme at Academy locations or at identified remote centres as per the convenience. For registration participants need to apply to one of the Academies, however, they can attend the training programme at that Academy or any remote centre attached to that respective Academy, please refer to respective academy websites.

#### How to apply:

- A duly filled in application form in the prescribed form signed by the Head of the Institute to which the candidate belongs (along with demand draft/CBS-Cheque) should reach by post to the local coordinator of the participating academy.
- Government of India norms will be followed for SQ/ST category participants.
- The application form along with the DD/GBS-Chaque can also be submitted in the online mode to Local Coordinator of the respective academy.
   Note: Refer offering Academies websites for complete postal address and other details of Winter courses.



Following are the programmes being offered in this Winters. Dec 2019- Jan 2020, each of 5 days duration.

S.No.	Course Name	Principal Coordinating Academy	Go-Principal Goordinating Academy	Starting date of Programme	Last date of receiving applications	
1	Python Programming with Industry perspective	MNIT Jaipur Dr. E. S. Pilli	NIT Patna Dr. Bharat Gupta	2 Dec 2019	25 Nov 2019	
		IIITDM Jabalpur Prof. Aparajita Ojha	NITW Prof. R. B. V. Subramanyam	9 Dec 2019 16 Dec 2019	2 Dec 2019 9 Dec 2019	
3	VLSI Chip Design Hands on using open source EDA					
4	Al & Machine Learning IIT Roorkee Prof. Sanjeev Manha		MNIT Jaipur Dr. S. J. Nanda	23 Dec 2019	16 Dec 2019	
5	Natural Language Processing (NITP+IIITDMJ/MNITJ)  NIT Patna Dr. J. P. Singh		IIITDM Jabalpur Prof. Atul Gupta	6 Jan 2020	23 Dec 2019	
6	ICT Tools for Teaching, Learning process & Institutes MNIT Jaipur, IIITDM Jabalpur, NIT Patna, IIT Guwahati, NIT Warangal (All Academies)			13 Jan 2020	6 Jan 2020	

Target Beneficiaries:

Interested Faculty of engineering/technical institutions are eligible to attend these Winter courses.

ability of seats at each offering Academy:

Firsty (50) seats are available for each course to be offered at each Academy/Remote Centre. Participants will be selected based on first-cum-first-serve basis by each academy. Selected participants will be communicated through e-mail / notified in E&ICT Academy websites.

Course duration:

Each course is designed as 3 credit equivalent for 40 hours (Theory Lectures, Hands-on/Design orientation/Activity linked problems/Assignments Problem Solving/Case Studies sessions/Quiz Tests)

Accommodation & Travel

Boarding and Lodging at Hostels/Guest House will be provided at free of cost only at Identified E&ICT Academies. For details please refer to respective Academy websites. At identified Remote centres only working lunch and snacks will be provided. No Travel Allowance will be paid to the participants. Registration Fee for each Winter Course:

No Registration fee is charged for attending this programme planned at any designated academies/Remote centres. However, candidate should submit a Demand Draft/ CBS-Cheque of Rs.1000/- along with application form and the same will be handed over to the participant on the last day of the training. Certificate for participation as well as for Satisfactory performance will be given to the participants subject to fulfillment of attending all sessions, submission of assignments and clearing the test(s).

### Mode of Payment:

Academy Name	Payment through DD/CBS-Cheque
IIT Guwahati	Demand Draft in favor of "Registrar, IIT Guwahati" Payable at Guwahati
IIITDM Jabalpur	Demand Draft in favor of "Electronics and ICT Academy, IIITDMJ" payable at Jabalpur
MNIT Jaipur	Demand Draft in favor of "Electronics and ICT Academy, MNIT Jaipur" Payable at Jaipur
Kanpur	Demand Draft in favor of "Director, IIT Kanpur" Payable at Kanpur
NIT Patna	Demand Draft in favor of "Director, NIT Patna" payable at Patna
IIT Roorkee	Demand Draft in favor of "Dean SRIC IIT Roorkee" payable at Roorkee
NIT Warangal	Demand Draft in favor of "Electronics and ICT Academy, NITW" payable at NIT Warangal

- Last Date for Submission of Applications is Monday of earlier week from the start date of respective programme.
- The intimation of Selection for participation will be posted on website on Wednesday of previous week.



# The following are the details of Winter courses being offered during Dec'19 –Jan'2020 1: Python Programming with Industry perspective 2 – 6 Dec 2019

Prospective external Experts- (i) Dr. Mani Madhukar, Program Manager - University Relations, IBM India Pvt. Ltd Experts from host institutes- (ii) Dr. E. S. Pilli,

# Contents of Python Programming with Industry Perspective

S.No	Module Name	
		Topics
1.	Introduction & basics of to Python Programming:	History of Python, Installing Python, Executing Python Programs, Internal Working of Python, Python Implementations. Python Character Set, Token, Python Core Data Type, print() function, Assigning Value to Variable, input() function, eval() function, Formatting Number and Strings, Operators and Expressions
2.	Decision Statements; Loop Control Statements; Functions, Strings	Boolean Type, Boolean Operators, Using Number and Strings with Boolean Operators, Decision Making Statements and Conditional Expressions While loop, range() Function, For Loop, Nested Loops, Break Statement, Continue Statement Syntax and Basics of a Function, Use of a function, Parameters and Arguments, Local and Global Scope Scope of a Variable, return statement and Recursive Functions. str class, Inbuilt functions for String, index[] operator, traversal of String, String operators, String Operations
3.	Lists and Dictionaries; Tuples and Sets; File Handling; Pandas	Creating Lists, Basic list operators, Slicing, Inbuilt functions for Lists, List operator, List Methods, Splitting, Need of Dictionary, Creating a Dictionary, Adding and Replacing Values, Retrieving Values; Deleting Items and Traversing Dictionaries.  Tuples and Sets: Creating Tuples; Tuple () Function, Inbuilt Functions for Tuples, Indexing and Slicing; Operations on Tuples; Traverse Tuples from a List, Set operators; Set class.  Object-Oriented Programming: Classes and objects, methods, Operator Overloading, Inheritance, super () and Method Overriding.  File Handling: Need of File Handling, Reading/Writing Text and Numbers to/from a File; Directories on a disk.  Pandas: Using Pandas, the python data analysis library and data frames
4.	Data Handling and Use Cases	RE Pattern Matching, Parsing Data, Introduction to Regression, Types of Regression, Use Cases, Exploratory data analysis, Correlation Matrix, Visualization using Matplotlib and Implementing linear regression.
5.	Machine Learning	Machine Learning - Algorithm, Algorithms - Random forest, Super vector Machine, Random Forest, Build your own model in python and Comparison between random forest and decision tree.

Principal Coordinator - Academy	Go-Principal Coordinator - Academy	Participating Academies and Local Coordinator Details
Dr. E. S. Pilli espilli.cse@mnit.ac.i n_M: 954 965 8131 MNIT Jaipur	Dr. Bharat Gupta_ bharat@nitp.ac.in Mobile:93314 06964 NIT Patna	IIITDM Jabalpur- Dr. Atul Gupta, M: 9425152499 Phone:+761-2794223 Email: atul@iiitdmj.ac.in
		MNIT Jaipur - Dr. Dinesh Tyagi & Dr. Yogesh Meena, dktyagi.cse@mnit.ac.in, M: 9549658130, ymeena.cse@mnit.ac.in, M: 9461306647
		NIT Patna- Dr. Mukesh Kumar, & Dr. Somaraju Suvvari, mukesh.kumar@nitp.ac.in M: 8984142557, somaraju@nitp.ac.in , M: 9676430356



# 2: Deep learning & and applications

Prospective external Experts- (i) Industry support from NVidia, MathWorks (MATLAB) (ii) Dr. Anupama Ray, IBM (iii) Dr. Ritu, Experts from host institutes- (iii) ) Prof. Aparajita Ojha, IIITDMJ (iv) Dr. Santosh Vipparthi, MNITJ

# Contents of modules of Deep Learning & Application

S.No.	Module Name	Learning & Applications
1.	Introduction to Machine Learning & Artificial Neural Networks	Overview of machine learning, Supervised and unsupervised learning, Artificial Neural Networks, Feedforward Neural networks, Gradient Descent and the back typical machine learning and deep learning Practice Session: Introduction to Pather Descent and Session: Introduction to Pather Des
2.	Convolutional Neural Networks	Practice Session: Introduction to Python Programming, Tensorflow and Keras.  Making a Neural Network, training and testing. Saving the best weights and mode maps, CNN as a feature extractor, Some Standard CNN architectures like Practice Session: Building a CNN model, CNN for image classification. Using Googel Colab for building and training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building and Training Deep Learning Medical Color Described Practice Session: Building Action Described Practice Session: Buildin
3.	Autoencoders and Generative Adversarial Networks	Autoencoders (AEs), Undercomplete and Overcomplete AE, Convolutional AE, Regularization, Sparsely regulated AEs, Denoising and Stacked AE. Generative Adversarial Networks (GAN), Variants of GAN.
4.	Recurrent Neural Networks	Brief Introduction to Recurrent Neural Networks, LSTM, GRU and their applications in machine translation, language modelling and sentiment classification.  Practice Session: Building an Alagaritation (
5	CNN Application to Classification and Detection problems	from travel\hotel website user feedback data.  Object detection algorithms, R-CNN, Faster R-CNN, YOLO and SSD. Hands on-Object detection.  Practice Session: Installing Darknet framework on your laptop, how to use YOLO for object detection.

Principal Goordinator - Academy	Go-Principal Goordinator - Academy	Participating Academies and Local Coordinator Details
Prof. Aparajita Ojha aojha@iiitdmj.ac.in M: 9425800334 IIITDM Jabalpur	Prof. R. B. V. Subramanyam eict.nitw@gmail.com M: 091210 16547 NIT Warangal	IIITDM Jabalpur- Dr. Irshad Ansari, Email: <u>irshad@iiitdmj.ac.in</u> <u>M:</u> 9109106995; Phone: +761-2794478;
		MNIT Jaipur - Dr. Santosh Vipparthi & Dr. Ramesh Battula, MNIT Jaipur skvipparthi@mnit.ac.in, M: 954 965 8135 rbbattula.cse@mnit.ac.in, M: 954 9654 395; NIT Patna - Dr. Subodh Srivastava, & Dr. Rajib Ghosh, subodh@nitp.ac.in M: 7565036892, rajib.ghosh@nitp.ac.in M: 8084023813 NIT Warangal- Prof. R. B. V. Subramanyam eict.nitw@gmail.com, M: 091210 16547



# Participant List

College Name : Army Institute of Technology, Pune FEP Name with Date : "ICT Tools & Techniques for To

			des for Teaching				
gje	Kame	Faculty/			E process & Institutes' (13/1/2020 - 17/1/2020)		
	Ms Sushma Patil	Others	Male/Female	(SC/ST/	I nevie		
	Mr Avinash Papil	Faculty	Female	OBC/URI		Mobile No	
	Ms Pranita Bhosale	Faculty	Male		Army Institute of Technology, Pune	9923298051	
3		PhD. Research	Female	UR	Army Institute of Technology, Pune	9823678051	
4	Mr M B Lonare	Faculty	Male	UR	D Y Patil I.O. T. Pimpri	9960599324	
5	Mr P D Hore	Faculty		UR	Army Institute of Technology, Pune	9423166105	
6	Dr P B Karandikar	Faculty	Male	UR	Army Institute of Technology, Pune	9890704429	
7	Mr D G Auradkar	Faculty	Male	UR	Army Institute of Technology, Pune	9420427741	
8	Mr K A Hule		Male	UR	Army Institute of Technology, Pune	9422300730	
9	Mr G P Kapse	Faculty	Male	UR	Army Institute of Technology, Pune	8668277166	
10	Ms V S Ingale	Faculty	Male	UR	Army Institute of Technology, Pune	8793394705	
11	Mr Rushikesh Patil	Faculty	Female	sc	Army Institute of Technology, Pune	9371165218	
_		Faculty	Male	UR	Army Institute of Technology, Pune	9822891234	
12	Dr. Rahul Desai	Faculty	Male	UR	Army Institute of Technology, Pune	9284234918	
13	Dr. G R Patil	Faculty	Male	ŲR	Army Institute of Technology, Pune	9422510862	
14	Dr Ganesh Mundhe	Faculty	Male	UR	Army Institute of Technology, Pune	9579408564	
15	Dr Jayadevan	Faculty	Male	UR	Army Institute of Technology, Pune	9881195915	
16	Mr Yogesh V Patel	Faculty	Male	UR	Army Institute of Technology, Pune	9422356308	
17	Mr Ramshirdmani Verma	Faculty	Male	UR	Army Institute of Technology, Pune	9881752034	
18	Dr Sangeeta Jadhav	Faculty	Female	UR	Army Institute of Technology, Pune	9923911211	
19	Dr N K Bansode	Faculty	Male	UR	Army Institute of Technology, Pune	9822666427	
20	Mr Anup Kadam	Faculty	Male	UR	Army Institute of Technology, Pune	9922996848	
	Dr Sunil Dhore	Faculty	Male	UR	Army Institute of Technology, Pune	9890809251	
	Mr J B Jawale	Faculty	Male	UR	Army Institute of Technology, Pune	9923565542	
		Faculty	Female	UR	Army Institute of Technology, Pune	9637357079	
-	Ms Trupti P Bidave	Faculty	Male	UR	Army Institute of Technology, Pune	9922688290	
	Mr Mahesh B Phatangare		Male	UR	Army Institute of Technology, Pune	9881399777	
25	Dr Sanjiv Sansgiri	Faculty	Female	UR	Army Institute of Technology, Pune	9766201388	
26	Ms Trupti Katte	Faculty			Army Institute of Technology, Pune	9422356483	
27	Dr Surekha K S	Faculty	Female	<u> </u>	al. l		

Principal Army Institute of Technology Dighi Hillis, Pune - 411015

# College Name : Army Institute of Technology, Pune

PDP Name with Date : "ICT Tools & Techniques for Teaching ,Le

		TP.	Faculty/					
	Name			Category (SC/ST/	Institution	Mobile No		
28	Dr A V Kulkarni	Faculty	Female	OBC/UR)				
29	Dr P Malthi		remate	UR	DIT Pimpri , Pune	9850896653		
30	V= 8=+10 ''	Faculty	Female	UR	D Y P COE ,Akurdi	9823152302		
30	Ms Snehal Gaikwad	Faculty	Female	UR	D Y P COE "Akurdi	9920922726		
31	Dr Arti Bang	Faculty	Female					
32	Mr PR Sonawane		remale	UR	VIIT, Pune	9422986012		
34	Int PK Softawarie	Faculty	Male	UR	Army institute of Technology, Pune	9420061004		
33	Dr Shailaja Patil	Faculty	Female	UR	RSCOE, Pune	9890367938		
34	Mrs Preeti Patil	Faculty	Female	UR	Army Institute of Technology, Pune	8888449242		

Principal Army Institute of Technology Dighi Hillis, Pune - 411015



# Army Institute Of Technology (AIT) Dighi Camp, Pune-15

Director: (020) 27157758, Joint Director: (020) 27157977, Principal: (020) 27157741

Exch: (020) 27157612, (020) 27157534 Fax: Extn: (020) 27157534

Website: www.aitpune.com, Email: ait@aitpune.edu.in

Recognised by AICTE and DTE Maharashtra and affiliated to Savitribai Phule Pune University

Dear Sir/Ma ám,

It gives us immense pleasure to invite you for participating in Faculty Development Programme on "ICT Tools for Teaching Learning process & Institutes" under MEITY (Ministy of Electronics & Information Technology), during 13-17<sup>th</sup> Jan 2020 at the Department of Electronics & Telecommunication, Army Institute of Technology, Pune.

MEITY has approved a scheme and setup Electronics and ICT Academies at 07 (seven) institutions viz. IIT Guwahati, IIT Kanpur, NIT Warangal, NIT Patna and IIITDM Jabalpur (all five under Category-A); and IIT Roorkee, MNIT Jaipur (both under Category B).

Faculty Development Programmes in core areas of Electronics and Information & Communication Technology (ICT) streams have been planned by academies for delivery during winters (i.e., 2 Dec'19 –17 Jan'20). All these winter courses will be offered through National Knowledge Network (NKN) based Video Conferencing, with lectures delivered by invited experts from IITs, NITs, IIITs and other premier institutes/industries. In addition, local course coordinators at respective academies /identified remote centers will take care of sessions on design orientation/activity linked problems/ assignments/ case studies and quiz test(s).

Candidates could attend the training programme at Academy locations or at identified remote centers as per the convenience. For registration participants need to apply to one of the Academies, however, they can attend the training programme at that Academy or any remote center attached to that respective Academy, please refer to respective academy websites.

Army Institute of Technology Pune is one of the approved remote centers under IITDM Jabalpur to conduct the FDPs. The details of the FDPs can be found in the attachment. Registrations for the FDP are invited from faculty of Engineering/Technical institutions. There are no registration fees for the FDP. Please feel free to contact the following coordinators regarding the same. The last date of registration is 7th Jan 2020. There is a limited number of seats in FDP.

Kindly refer to the attached brochure for detailed information.

Dr. B P Patil Principal

Dr Surekha K S Professor, Department of E&Tc, Army Institute of Technology Mobile:9422356483 Email:surekhaks@aitpune.edu.in

Prof. Avinash Patil Assistant Professor, Department of E&Tc Army Institute of Technology Mobile:9823678051 Email: apatil@aitpune.edu.in

Principal Army Institute of Technology Dighi Hillis, Pune - 411015