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Ministry of Electronics & Information Technology
Government of India

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Head, CSE

Preamble (Electronics & ICT Academy)

Government of India had announced a National Policy on Skill Development, which has set a target of skilling 500 million people by 2022 in the domain of Electronics & IT. Under the plan scheme of “Digital India Manpower Development”. MeitY has set up seven (07) Electronics and ICT Academies as a unit in 03 IITs, 03 NITs and 01 IIIT with an objective of faculty/mentor development/up gradation in the areas related to Electronics & ICT leading ultimately to improved employability of graduates/diploma holders. MNIT Jaipur has set up such an academy for providing specialized training to faculty and industry persons in the states/UTs of Rajasthan, Gujarat, Daman & Diu, Dadra Nagar Haveli.

(A) Issues-

1. IT Hardware and Electronics Manufacturing industry- availability of properly trained, skilled and qualified manpower
2. Number of quality PhDs generated in IT / Computer Science is very low
3. In E & ICT domain- there is a very high degree of obsolescence of existing technologies and faster emergence of newer technologies

(B) Approach-

1. A focused faculty training/updation programme for IT, Electronics and related sectors
2. Spreading up and continuous updation regarding Emerging Technology
3. Training and consultancy services for Industry
4. Design, Develop and Deliver specialized modules for specific research areas and Industry
5. Providing advice and support for technical incubation and entrepreneurial activities

This course is designed to provide an exposure to the fundamentals of Robotics and Artificial Intelligence. Participants will learn kinematics and dynamics of industrial manipulators, kinematics of mobile robots, trajectory planning, path planning and control and how to embed intelligence in robotic tasks. Hands-on training and practice sessions will help participants gain confidence on robotic concepts, their simulation and implementation including sessions on intelligent agents. The course will be useful for faculty of engineering and sciences who are interested in the learning robotics and intelligent systems. This training program shall cover expert lectures as well as intensive hands-on demonstrations. The experts from NIT / IIT / IIIT / Industry & prestigious foreign universities would be conducting the sessions.

Experts/Speakers-

- 1) Prof. Ashish Dutta, Professor, IIT Kanpur
- 2) Prof. Aparajita Ojha, Professor, PDPM IIITDM Jabalpur
- 3) Prof. Domineco Prattichizzo, University of Siena, Italy
- 4) Dr. Madan Mohan Dabbeeru, Rakuten India
- 5) Prof. T. Matsumaru, Waseda University, Japan
- 6) Prof. Tomohiro Shibata, Kyushu University, Japan
- 7) Prof. Vijay Kumar Gupta, Professor, PDPM IIITDM Jabalpur
- 8) Prof. V.M. Gadre, Professor, IIT Bombay
- 9) Dr. Shantha Kumar Mohan, IIT Palakkad

Course Content:

Module 1: Introduction to Robotics
Module 2: Robot Kinematics
Module 3: Wheeled Mobile Robots
Module 4: Artificial Intelligence and Machine Learning
Module 5: Deep Learning for Computer Vision
Module 6: Path and Trajectory Planning
Module 7: Reinforcement Learning
Module 8: Robots in healthcare
Module 9: Robot Control and Design
Module 10: Rehabilitation Robotics

Programme Coordinators:

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Registration:

Registration is open to graduate, postgraduate and doctoral students, faculty and industry persons. Participants will be admitted on first-come first-served basis.

Details of the programme- http://www.mnit.ac.in/eict/acad_training_prg.php

Register online at- <http://online.mnit.ac.in/eict>

Registration Fee:

Academic (student/faculty): 500/-, Industry/Others: 1000/-

(A) Fee once paid will not be refunded back; it may only be adjusted in future courses upon prior request.

(B) The fee covers online participation in the programme, comprehensive tutorials, practice notes & certification charges.

(C) The organizers should receive the fee through online payment gateway provided at the registration portal.

→For any other query, email us at [academy\[AT\]mnit.ac.in](mailto:academy[AT]mnit.ac.in)