All India Council For Technical Education (AICTE) Sponsored Workshop on Robotics: Theory, Concepts and Implementation

Dates: 24-28 May 2019

Venue: Prabha Bhawan, MNIT Jaipur

Coordinators: **Prof. Rajesh Kumar & Dr. Satyanarayana Neeli**
Department of Electrical Engineering, MNIT Jaipur, India.

AICTE Training & Learning Academy (ATAL)

All India Council for Technical Education will establish country's first AICTE Training and Learning (ATAL) Academy in Jaipur, capital of Rajasthan. These academies will provide upgraded teaching methods and modules to make technical education more effective and accountable. The objective of the academy is to train Faculties, students and research scholars in recent technological developments. In addition, the training will be mandatory for new teachers from 2019 and it will be necessary for existing teachers and assistant teachers while applying for promotions. AICTE is statutory body established in November 1945. It comes under aegis of Department of Higher Education, Ministry of Human Resources Development. It is national-level council for technical education responsible for planning and coordination of technical education management of education system in the country. It is headquartered in New Delhi.

About MNIT Jaipur

The college was established in 1963 with the name as Malaviya Regional Engineering College (MREC), Jaipur as a joint venture of the Government of India and the Government of Rajasthan, Subsequently; Later in the year 2002 the college has been given the status of National Institute of Technology (NIT) and on 15 August 2007, Proclaimed Institute of National Importance through Act of Parliament. The Institute, Malaviya National Institute of Technology (MNIT) Jaipur is fully funded by Ministry of Human Resource Development (MHRD), Government of India. MNIT campus spreading into an area of over 317 acres of lush greenery, the campus of the Institute is imaginatively laid-out with a picturesque landscape. The institute offers various UG, PG (M.Tech/MSc/., & PhD) courses in almost all fields of Engineering, technology, management and sciences in addition to research, consultancy, and development.

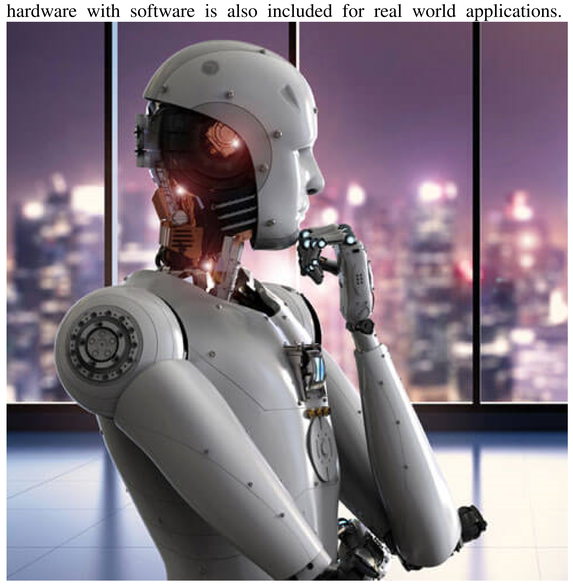
Department of Electrical Engineering

The Electrical Engineering Department is one of the oldest departments at MNIT Jaipur. Currently, the department offers undergraduate courses in Electrical Engineering along with postgraduate courses in Power Systems, Power Electronics and Power System Management. The research domains of the department span over various areas of power systems, Control systems, Power electronics, Robotics and Artificial Intelligence, Energy, 3D Design and Electrical Machines. Faculties actively involved in collaboration work with academia, industry and consultancy.

Introduction to Course

The Robotics and Autonomous systems is an interdisciplinary field which interacts and combines with various engineering branches of electrical, mechanical and computer science/information technology. Fueled by recent advances in computer vision, sensing, digitization, fabrication and understanding the dynamics of physical systems, may open for new technological advances in Robotics. Robotics may find applications range from machine tools, autonomous vehicles, medical, process industry for automation, military. Some applications are already mature and new ones emerge every day.

The main objective of the course is to give the participants introduction to the dynamics of robotic systems, multibody dynamics, dynamic Balancing and optimization of mechanisms including Robotic Systems and then hands on computer-aided design. This course provides basic understanding of mathematical methods for modeling and control of robot manipulators. Machine learning and artificial intelligence is an integral part in understanding of robotics, will be discussed. A practical session on integration of hardware with software is also included for real world applications.



Focused areas to be covered

Manipulator Kinematics includes coordinate transformations, rigid body motion, forward and inverse kinematics, mathematical modeling, multibody dynamics, dynamic Balancing and optimization of mechanisms including Robotic Systems, computer-aided design, machine learning and AI and real world applications.

Who can attend

Teachers, Scholars, UG, PG students and professionals, working in the field of Electrical, Electronics & Communication, Instrumentation and Control, Mechatronics and Robotics are eligible. Seats are limited and confirmed on first come first basis.

Reaching MNIT Jaipur

Jaipur is well connected by road, rail and air services. MNIT is situated on Jawaharlal Nehru (JLN) Marg. It is about 9 km away from the main railway station/central bus stand (Sindhi Camp) and 6 km away from the airport.

Details of Course Registration

(a) Registration link `https://docs.google.com/forms/d/1XG0SdeSNhfGXkjFZkqY8Euojh4L3PeZkMly-AvjHhVI/edit?ts=5c8899a5`

(b) No registration fee. Limited number of seats area available.

Resource Personal

Several resource personal from academic institutes include, IITs/NITs, and Research & Development labs will deliver their lectures during the course.

Accommodation & last date for registration

Limited accommodation will be available, on payment basis and **last date for the registration is 20 May 2019.**

Organizing committee

Patron

Prof. Udaykumar R Yaragatti, Director, MNIT Jaipur.

Coordinators

Prof. Rajesh Kumar, Professor & Head, Department of Electrical Engineering, MNIT Jaipur.
Dr. Neeli Satyanarayana, Assistant Professor, Department of Electrical Engineering, MNIT Jaipur.

Organized by

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Malaviya National Institute of Technology Jaipur,
(Under MHRD, Govt. of India)
J.L.N. Marg, Jaipur-302017, Rajasthan.

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Registration form

Malaviya National Institute of Technology Jaipur
Department of Electrical Engineering
AICTE sponsored workshop on
Robotics: Theory, Concepts and Implementation

Name: _____

Gender: _____

Designation: _____

Organization: _____

Department: _____

Qualification: _____

Specialization: _____

Mailing address: _____

_____

Phone No: _____

email: _____

Accommodation needed? : _____

Date: _____

Signature: _____