

REGISTRATION FORM
Motilal Nehru National Institute of Technology,
Allahabad

A STTP ON
ROBOTICS AND AUTOMATION
JUNE 08 - 12, 2015

Name:
Designation:
Department:
Institution/Organization:
Years of Experience:
Address:

E-mail:
Telephone No. : Fax No. :
Mob.No.
Qualification (Highest Degree):
Area of Research Interest:

Payment Details

Demand Draft no. dated
Amount in Rs. drawn at
Transaction ID (in case of online transfer):
Date of Transaction:
(Please enclose transaction slip)

Signature of the applicant

ORGANIZING COMMITTEE

PATRON:
Prof. P. Chakrabarti,
Director, MNNIT Allahabad.

CHAIR PERSON:
Prof. R. K. Srivastava
Head, Mechanical Engineering Department,
MNNIT Allahabad.

CONVENER:
Prof. K. N. Pandey,
Professor, Mechanical Engineering Department,
MNNIT Allahabad.

COORDINATOR:
Dr. J. C. Mohanta,
Asst. Professor, Mechanical Engineering Department,
MNNIT Allahabad.

IMPORTANT DATES:

- Receipts of application: May. 25, 2015
- Intimation about selection: May 26, 2015
- Confirmation from the participants: May 30, 2015

Send the completed registration form/DD to:

Dr. K. N. Pandey
Mechanical Engineering Department,
Motilal Nehru National Institute of Technology
Allahabad, Allahabad - 211004

Phone: (0532) 2271527 (O), 2271961 (R),
9415014464(Mo)

Fax: 0532-2545341, 2545677

Email: knpandey@mnnit.ac.in, knpandey123@gmail.com

Dr. J. C. Mohanta,
Mechanical Engineering Department,
Motilal Nehru National Institute of Technology
Allahabad, Allahabad - 211004

Phone: 08795372930, 0532-2271527

Fax: 0532-2545341, 2545677

Email: jcmohanta@mnnit.ac.in

SHORT TERM TRAINING
PROGRAMME

ON

ROBOTICS AND AUTOMATION

For

Faculty members of Engineering Colleges,
Research scholars, students, Practicing
Engineers and Scientists

June 08-12, 2015

A self financed course

CONVENER

PROF. K. N. PANDEY

COORDINATOR

DR. J. C. MOHANTA



Organized by

Mechanical Engineering Department
Motilal Nehru National Institute of Technology Allahabad
Allahabad - 211004
INDIA

INTRODUCTION

An exhaustive course on ROBOTICS AND AUTOMATION is offered from June 08-12, 2015 at Motilal Nehru National Institute of Technology, Allahabad under self Finance category. The course is designed to cater the needs of teachers from engineering colleges, scientists, practicing engineers from industries, UG, PG and Ph. D. Students from academia. This programme will be beneficial for persons to augment the knowledge of industrial applications specifically on the broad area of Robotics Technology and Automations. The beauty behind this short term course is focused to cover the basic fundamentals as well as to grasp the knowledge to make a real robot for various practical applications.

OBJECTIVES

The overall objective of the short term course is to bring together the scientists and engineers in academia and industry in fields related to Robotics and Automation. The short term course covers industrial engineering applications of the above topics including theoretical and simulation methods, computer programming and experimental analysis. The objective of the short term course is to promote the interaction between National scientists and engineers from a large number of disciplines, who are involved in research related to the broad area of Robotics. This is a project based course supported by state-of-the-art laboratory facilities.

COURSE CONTENTS

- Basic of Robotics Technology
- Industrial robot
- Industrial robot and its evolution
- Types, components, accuracy, programming and applications of robots
- Robot sensors

- Concept of Artificial Intelligence and how it relates to industrial machines
- General classifications of robots
- Basic principle of a teach pendant
- Differentiate between a Robot and a manipulator
- Degree of Freedom for a multiaxis robot
- Differentiate between pitch, yaw, and roll
- Work envelope, Basic coordinate systems
- Payload, repeatability, and accuracy
- Functions performed by vision and touch sensors
- Applications for industrial robots
- Define artificial intelligence
- Fundamental to build a simple Robot
- Electronics and Mechanical Fundamentals
- Programming of Robot
- Final Testing of the Robot
- Application of DC motor in Robotics
- Hardware and software interface of DC Motor
Demonstration of DC Motor on Robotic kit
- Application of Stepper Motor
- Hardware and software interface of Stepper Motor
- Demonstration of Stepper Motor on Robotic kit
- Theory of Servo Motor
- Demonstration of Servo Motor on Robotic kit
- Theory of various Sensors
- Hardware and software interface of touch & light Sensors etc.

In addition to the lectures, the program shall also have following activities:

*MNNIT Labs visit *Group Discussion, *Industry visit etc.

FACULTY

The faculty will be drawn from MNNIT, other premier institutions and industries to deliver expert lectures.

SELECTION AND COURSE FEE

(a) For Faculties and Students

The faculties and B. Tech, M. Tech. Students and Research Scholars from Mechanical, Electrical,

Electronics and Computer Science domain are welcome to participate in this course.

Course fee for Faculty members : Rs.1500.00

Course fee for students : Rs.1200.00.

(b) For Participants From Industries / R&D Labs

Private and public sector industries and other organizations are welcome to depute their executives, managers and engineers to participate in the course.

The sponsoring organizations are required to pay a course fee of Rs.3000/- per participant (excluding boarding and lodging).

The applications should reach the course coordinator latest by May 25, 2015, giving the information as shown in the Proforma.

ACCOMMODATION

Participants are required to pay Rs.1500/- for boarding and lodging in the Institute Guest House on twin sharing basis. Application on a separate sheet giving the information shown in the proforma should reach the Convener/ Course Coordinator latest by May 25, 2015.

All payments should be made through bank draft payable at Allahabad and drawn in favour of "STTP on Robotics & Automation".

Fee may also be paid through online transfer. Details of the account are:

Name of the account: STTP on Robotics & Automation

Bank: Vijaya Bank, MNNIT Allahabad

Account No. 718400301000170

IFS Code: VIJB0007184

Candidates will be informed about selection by E.mail.

The list of the selected candidates will also be displayed on the MNNIT website.