

TWO DAYS WORKSHOP  
ON  
AVR (ATMEGA-16) FOR  
ROBOTIC APPLICATION Sept'17

REGISTRATION FORM

NAME: \_\_\_\_\_  
DEGREE/ BRANCH: \_\_\_\_\_  
INSTITUTION : \_\_\_\_\_

ADDRESS FOR COMMUNICATION

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MOBILE: \_\_\_\_\_  
EMAIL ID: \_\_\_\_\_  
S DEMAND DRAFT DETAILS  
DD No: \_\_\_\_\_  
BANK : \_\_\_\_\_  
AMOUNT : \_\_\_\_\_  
DATE : \_\_\_\_\_

Date

SIGNATURE OF APPLICANT

REGISTRATION FEE

Academics : Rs. 6000/- per team  
(3 Members per team)  
Includes Robo-kit, Course material, Lunch and tea  
(\* Registration will be accepted only by DD  
drawn in favor of 'TAPE' payable at Chennai)

IMPORTANT DATES

Registration starts from: 12th August 2017  
Last Date for registration: 12th Sept 2017

VENUE

Department of Production Technology  
Anna University, MIT Campus  
Chromepet, Chennai 44  
Near Chromepet Railway station

CONTACTS

Department of Production Technology  
Anna University, MIT Campus

Any queries kindly mail to  
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Ashwin +91 9566119076  
mobile: Nishanth +91 9940509514  
Praveen +91 8608098961

Kindly bring your College ID card without fail.

FIRST COME FIRST SERVE  
REGISTER SOON

Madras Institute of Technology



ANNA UNIVERSITY  
CHROMEPET  
CHENNAI 44



TWO DAYS WORKSHOP  
ON

AVR (ATMEGA-16) FOR  
ROBOTIC APPLICATION

16<sup>th</sup> and 17<sup>th</sup> SEPTEMBER 2017

Organised by

**TAPE**  
MECHATRONICS  
AND  
MANUFACTURING  
ENGINEERING

Department of Production Technology

**ANNA UNIVERSITY**

MIT Campus, Chennai 600044

## INTRODUCTION

In recent times, robots are finding place in almost all applications and this has led to an increased desire among students to learn and build robots. Just like humans, each robot has a brain and senses, the Microcontroller acts as the brain and sensors provide the information for it to take decisions. Therefore, it is mandatory for engineers to understand and learn how to incorporate various sensors to develop a complete robot.

This workshop aim at educating the students about the AVR microcontroller and also to connect, test and communicate with various sensors like keypad and lcd displays, motor drivers, encoders etc. There will be theoretical as well as hand on practical training provided to the participants on the different sensors used and also on debugging common errors encountered while interfacing it to the microcontroller. Upon completion, the students shall receive a certificate of participation.

## COURSE CONTENT

1. Introduction to Microcontrollers, AVR controller and concept of Embedded Programming, serial communication, LED, LCD display, proximity sensors, ultrasonic sensor, optical encoders, DC motors and stepper motors etc.
2. Hands on Session:
  - a. Interfacing of LED, LCD, DC motor, Stepper motor, sensors with AVR Controller.
  - b. Obstacle avoidance and Line follower robot
  - c. Controlling of robot using serial communication.
3. Robo Kit assembly and programming.

## ABOUT US

Anna University was established on 4th September, 1978 as a unitary type of University. This University was named after Late Dr.C.N.Annadurai, former Chief Minister of Tamil Nadu. It offers higher education in Engineering, Technology, Architecture and Applied Sciences relevant to the current and projected needs of the society. Besides promoting research and disseminating knowledge gained therefrom, it fosters cooperation between the academic and industrial communities.

### Madras Institute of Technology

In 1949, Shri.C.Rajam, gave the newly independent India-Madras Institute of Technology, so that MIT could establish the strong technical base it needed to take its place in the world. It was the rare genius and daring of its founder that made MIT offer courses like Aeronautical Engineering, Automobile Engineering, Electronics Engineering and Instrument Technology for the first time in our country. Now it also provides technical education in other engineering fields such as Rubber and Plastic Technology & Production Technology. It was merged with Anna University in the year 1978. Sixty years hence, while it continues to be a pioneer in courses that it gave birth to, it is already renowned for producing the crème de la crème of the scientific community in more nascent courses such as Computer Science and Information Technology MIT has produced great scientist like Dr.A.P.J.Abdul Kalam, versatile genius like Sujatha and many more. The Madras Institute of Technology has developed into an important centre of engineering education and earned an excellent reputation both in India and abroad. MIT had received many awards which includes an award for the Best Overall Performance, awarded by Indian Society of Technical Education (ISTE) during the year 1999.

## Mechatronics

Mechatronics is the synergistic integration of Mechanical Engineering with Electronics and intelligent computer control in the design and manufacture of products and processes & it has futuristic application in the cutting edge technology. Mechatronics system engineering has gained global interest in the past decade from the educational and industrial sectors. This unique inter disciplinary programme is launched for the first time in India at MIT campus in the year 1998. Mechatronics is essential in the design of intelligent products; it allows engineers to transform their concepts into reality. Within the next few decades, the trade of intelligent products with improved flexibility, performance, reliability and maintenance will be crucial for the economic vitality of any country.

Mechatronics has wide range of applications especially in robotics, industrial & home automation, home appliances, inline assembly of automobiles, engine management system, aerospace, nuclear & marine Engineering.

## ELIGIBILITY CRITERIA

The program is open to all UG and PG students of engineering college/universities of all disciplines.  
( Participants are limited to 30 teams)

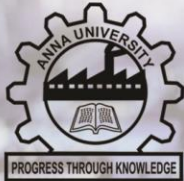
## PRE-REQUISITES

Participants are requested to bring their fully charged laptops to the venue.

Kindly bring your college ID card without fail.



# MADRAS INSTITUTE OF TECHNOLOGY



ANNA UNIVERSITY  
CHROMEPET, CHENNAI 44

**Department of Production Technology**

**The Association of Production Engineers(TAPE)**



**Mechatronics and Manufacturing Engineering  
presents**

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**ON**

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**16<sup>th</sup> and 17<sup>th</sup> SEPTEMBER 2017**

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