

**ALVA'S INSTITUTE OF ENGINEERING AND  
TECHNOLOGY**

**Dept. of Electronics and Communication  
Engineering**

*Certification Course  
On*

**"Introduction to Robotics"**

To,

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**Dept. of Electronics and Communication  
Engineering**

We cordially invite you to the  
Certification Course  
On

**"Introduction to Robotics"**

By  
**Mr.Santhosh S  
Asst.Professor  
Dept. of ECE, AIET**

Venue: Internet Lab

Date: 26/02/2018 to 02/03/2018

**Mr. Santhosh S  
Staff Coordinators**

**Dr. D V Manjunatha  
HOD**



### About the Institution

Alva's Institute of Engineering & Technology (AIET) is a premier Engineering Institute of Alva's Education Foundation established in the year 2008.

AIET is recognized by All India Council for Technical Education (AICTE), New Delhi and affiliated to Visvesvaraya Technological University (VTU), Belgaum, approved by Govt. of Karnataka. Ranked as one of the best Technical Institute in Dakshina Kannada region. AIET has established Multi-Disciplinary Research Centers viz Center for Robotics, EMS, CAD Center, Linux Lab.

### About the Department

Department of Electronics & Communication was started in the year 2008-09. ECE branch is concerned with the design, development, manufacture and application of electronic devices, circuits and systems. It plays great emphasis on deep understanding of fundamental principles and state of the art knowledge about Electronic Devices and Circuits, Computer Architecture and Microprocessors, VLSI and Embedded systems, Electromagnetic Field Theory,

Analog and Digital Communication, Digital Signal Processing, Microwave and Broadband Communications, MEMS Research and Development Lab.

### Scope of the Course

The Introduction to Robotics Specialization introduces you to the concepts of robot flight and movement, how robots perceive their environment, and how they adjust their movements to avoid obstacles, navigate difficult terrains and accomplish complex tasks such as construction and disaster recovery. This course will involve students in the development, building and programming of line follower robot.

### Course Content

1. Introduction to Embedded system and Fire Bird V robot.
2. Introduction to AVR Microcontroller and Programming Environment.
3. IO Buzzer Programming.
4. Motion Control using I/O ports.
5. Robot velocity control using PWM.
6. Sensor switching in the robot and its Programming.

### RESOURCE PERSON

Mr.Santhosh S

Asst.Professor

Dept. of ECE, AIET.

### PROGRAM SCHEDULE

#### 26 February, 2018

Introduction:	09:00 am to 10:30 am
Tea Break:	10:30 am to 10:45 am
Session 1:	10:45 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 2:	02:00 pm to 05:00 pm

#### 27 February

Session 3:	09.30 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 3:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 4:	02:00 pm to 05:00 pm

#### 28 February

Session 5:	09.30 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 5:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 6:	02:00 pm to 05:00 pm

#### 1 March, 2018

Session 7:	09.30 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 7:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 8:	02:00 pm to 05:00 pm

#### 2 March

Session 9:	09.30 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 9:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 10:	02:00 pm to 04:00 pm
Valedictory:	04:00 pm to 05:00 pm