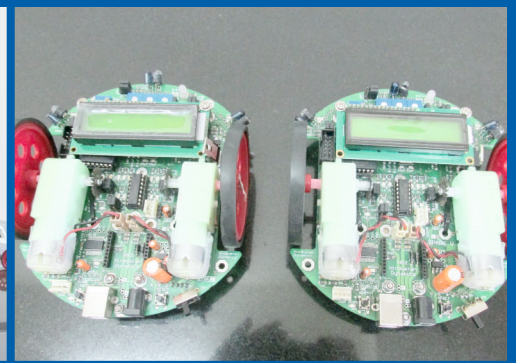
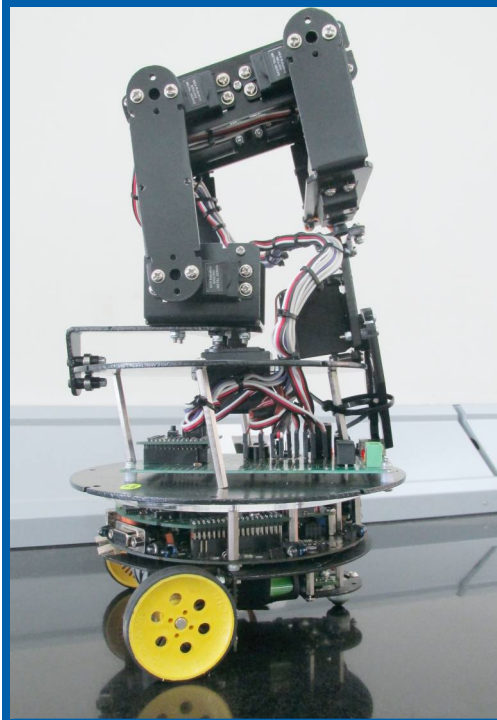


Institute of Infrastructure, Technology, Research And Management



Embedded Systems & Robotics Lab



Supported by e-Yantra Lab
Setup Initiative (eLSI) - IIT Bombay

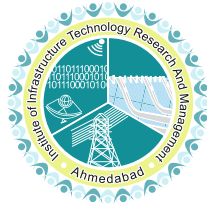
Funded by MHRD under
National Mission on Education
through ICT (NMEICT)



The skill development has been a key focus area of Government of Gujarat. It has been felt that Gujarat would need skilled manpower in huge number to sustain the industrial growth. The emphasis is on developing skills through the in hand exposure of different real time hardware module so that the skill development program becomes more industry relevant, self-sustainable and creating employment opportunities for youth.

Institute of Infrastructure, Technology, Research and Management (IITRAM) is established by Government of Gujarat as an Autonomous University and it is instrumental in bringing about a profound change in Engineering Education with specialization in Infrastructure and Management of Infrastructure to create center of excellence, to organize advanced studies and to promote research in Infrastructure and Management of Infrastructure.

e-Yantra is a flagship project of MHRD through the National Mission on Education through ICT (NMEICT) to spread Embedded systems and Robotics education in colleges across India. e-Yantra Lab Setup Initiative (eLSI) is a holistic approach to (i) impart theoretical and programming knowledge to teachers through workshops, (ii) provide hands on experience to teachers through an online Task Based Training (TBT) and (iii) help institute to set up their own Robotics labs. Government of India has assigned this project to be implemented in India to IIT, Bombay and further IIT, Bombay has designated IITRAM as a coordinating center of this Project in the State of Gujarat.



Institute of Infrastructure, Technology, Research And Management

Near Khokhra Circle, Maninagar (East), Ahmedabad-380 026. (Gujarat State)

Two Day Workshop on Introduction to Robotics and Embedded Systems (November 18-19, 2016)

: Schedule :

Day 1 (Date: 18/11/2016, Friday)	
09:00 AM to 09:30 AM	Registration + Tea
09:30 AM to 10:30 AM	Introduction of Institute and Overview of e-Yantra
10:30 AM to 11:30 AM	Introduction to Fire Bird V robot
11:30 AM to 01:00 PM	Introduction to AVR Micro-controller and Programming environment
01:00 PM to 02:00 PM	Lunch Break
Hands on Session	
02:00 PM to 03:30 PM	Simple Motion Control using I/O ports
03:30 PM to 03:45 PM	Tea break
03:45 PM to 05:15 PM	Robot velocity control using pulse width modulation
Day 2 (Date: 19/11/2016, Saturday)	
Hands on Session	
09:30 AM to 10:45 AM	Introduction to LCD interfacing
10:45 AM to 11:00 AM	Tea Break
11:00 AM to 01:00 PM	Analog sensor interfacing using Analog to Digital conversion *Interfacing with white line sensors *Interfacing with Infrared range finder sensor
01:00 PM to 02:00 PM	Lunch Break
02:00 PM to 03:30 PM	Interrupt programming *Closed loop position control of robot using position encoders
03:30 PM to 03:45 PM	Tea break
03:45 PM to 04:15 PM	Robot programming for white line following
Feedback Session	
04:15 PM to 05:00 PM	Quiz and feedback
05:00 PM to 05.30 PM	Concluding session and Visit of CoE Labs

Please note: Schedule, subject to change depending on the material we cover.



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