



NAME OF THE EVENT	Workshop on Robotics
ORGANISED BY	Department of Electronics and Communication
Coordinator Name	Mr. Raghavendra Havaladar
DATE	24 th & 25 th Janauary,2018
Name & details of Chief Guest/Resource Person	
Mr. Mahesha Y	

Description About event

The main aim of workshop is to give the hands on experience to use the arduino uno board and develop the robot. On January 24-25, 2018 Electronics and Communication Department of A.J College of Engineering is Organized two day workshop on “Robotics”. Workshop was conducted by Resource person Mahesh Y. Around 12 students from 3rd semester ECE and Mechanical branch took part in this workshop. Main focus of the workshop was to do hands on practical with Arduino uno board.

Arduino is an open-source electronics platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button turn it into an output - activating a motor, turning on an LED. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so you use the Arduino programming language (based on Wiring), and the Arduino Software (IDE), based on Processing.

Arduino is an open source development board used by developers and hobbyist for creating projects and prototypes. Arduino has vast collection of supporting libraries developed by open source users across the world. Learning this platform might help students in rapid prototype development their project. Keeping these facts in mind content of workshop was designed and delivered.

On 24th January 2018, the workshop on “Robotics” was inaugurated. Mr.Raghavendra Havaladar, Assistant Professor, Dept of ECE gave the welcome

speech, welcoming Mr. Mahesh Y who was the key resource person. Associate Professor & Head, Dept. of ECE Mr.Prakash Shetty was also present on the dais.

The first session involved in familiarization of the various types of development boards in Arduino and also learning about the development environment for Arduino. Students were taught how to work with Arduino I/O pin, after which students were able to run small practical cases such as blinking LED.

The next session was the continuation with learning the use of analog pins. Students learnt how to perform analog to digital conversion and set the brightness of LED accordingly. The Pulse Width Modulation feature was also explained. The concept of fading of LED and speed control of motor was demonstrated by Mr. Mahesh and the students implemented the same using Arduino.

On 25th January 2018, second day of the workshop the working of motor with H-bridge for forward and reverse direction was explained for varying speeds. The principle of IR sensor was explained so as to understand how it detects the difference between black and white color and distance of the object. The working principle of a line following robot was explained and students built their own line following robots with the guidance provided.

The workshop was concluded by inspirational words from the Principal Dr.Shantharama Rai C and a few tips from Mr. Mahesh followed by Vote of Thanks by Mr. Manjukiran B., Assistant Professor, Dept. of ECE.

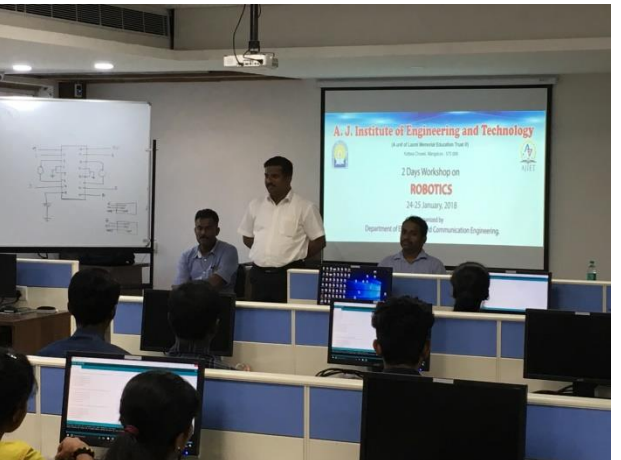
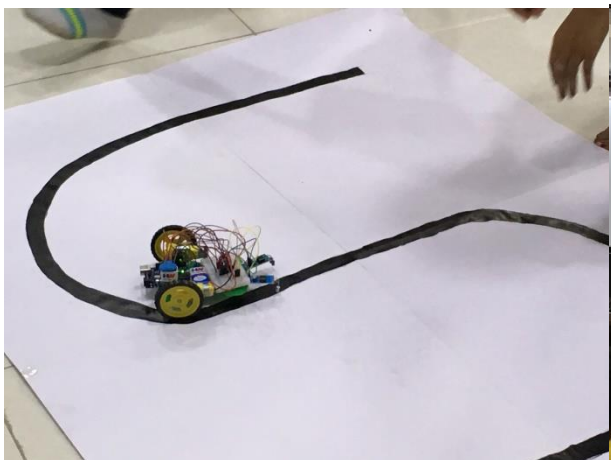
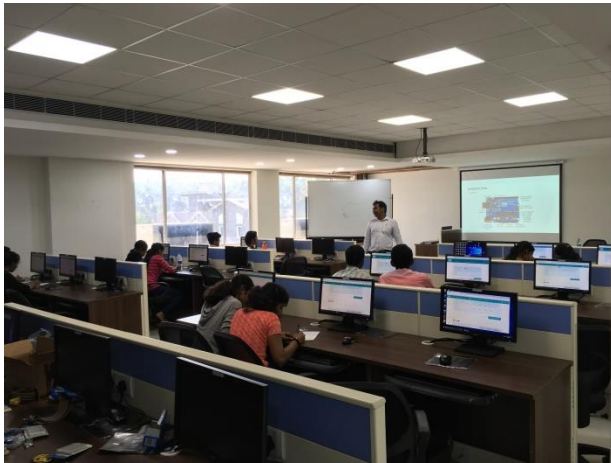
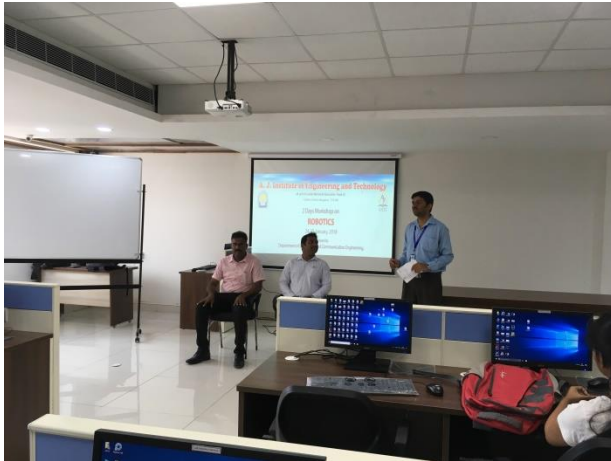
Overall the students learnt to build their own Line following Robot and learnt the basics of working with Arduino and gained basic knowledge of various Arduino development boards; Programming environment; onboard features of Arduino Uno: I/O, Analog, PWM; Arduino shields.

Students' feedback was collected and it suggested that they welcomed this initiative, also they are motivated to explore more in this platform and they are willing to use this board in their projects in future.

Students Attended	12
Faculty Attended	Mr. Manjukiran B Mrs. Thrapthi Shetty Mrs. Arpitha K.Shetty

Mrs. Vandana Akshath Raj
Mr. Terrence M.Fernandes
Mrs.Savitha

Photos of Workshop





(Coordinator)

(Principal)