

## Department of Electronics & Communication Engineering

23.09.2019

Submitted,

**Sub: Report on Hands-on Training Program on “Robotics” during 18<sup>th</sup> - 20<sup>th</sup>Sep 2019 for ECE Students – Reg.**

With respect to the above subject, We Department of Electronics & Communication Engineering organized 3 Days Hands-on **Training Program on “Robotics”** for students of 2<sup>nd</sup> – 4<sup>th</sup> year from 18<sup>th</sup> - 20<sup>th</sup>Sep 2019 in the campus. The Hands – on training provided an interactive atmosphere between the resource persons and the participants. The objective of the Program is to enhance the programming skills in the embedded system design for the students to expose their knowledge to do prototype innovative projects with "Arduino" Technology. Arduino is a special controller to build a Robot to perform the tasks.

The Hands- on training program inaugurated on 18<sup>th</sup> Sep 2019 with invocation song by student Ms. Sharatha and with the lighting of lamp by all dignitaries, our beloved Principal Dr. B. Shadaksharappa, Dynamic Management Representative Dr. R. Arunkumar, Head of the department, Prof. C. Sivaprakash and the Chief of Guest Sri.K UdayBhargav and the guest of Honour Sri. Surya Rao.

### **Chief Guest**

Sri. K UdayBhargav, General Director, GenEd Group of Technologies, Bangalore was honoured with Bouquet and memento by beloved Principal Dr. B. Shadaksharappa, SSCE and the Guest of Honour Sri. Surya Rao was honoured with Bouquet and momento by the Management Representative Dr. R. Arunkumar and the Trainers Mr. Azeezur Rahman Sharieff and Mr. Ajay V. of GenEd Group of Technologies, was honoured by Dr. B .Srilatha.

Our beloved Principal, Dr. B. Shadaksharappa delivered the presidential address, in his address he motivated the students to enhance the Robotic skills. Dynamic Management Representative Dr. R. Arunkumar congratulated the team for organising the Hands- on training program for the welfare of the Students. Chief Guest Sri. K UdayBhargav briefed about the current technology and the importance of 3days workshop. The inaugural session ends up with vote of thanks by Prof. P. Venugopal, ECE, SSCE. Hands- on 3days Training program started at 11.00am at Sri. Leo Muthu Innovation Center –Embedded Domain.

## Department of Electronics & Communication Engineering

### Day 1:

The session was about the introduction to Arduino, micro – controllers and embedded systems. Before interfacing the Arduino with the sensors, Participants were made familiar with the basic coding and the functions related to the microcontroller. Once Participants were familiar with the commands of Arduino, they were trained to write a code in C language of Arduino.

On the first day, the participants understood about the basic coding of Arduino and were able to analyse and implement small tasks related to LED interface and Buzzer interface along with the combination of the two from our guidance.

### Day 2:

On the Day 2, the session was started by a small revision and moved on to a project which was based on “Control of Traffic Intensity”. The students were proved more productive and efficient in doing this. The session then moved to interface of 16x2 LCD display with Arduino. Before interfacing the LCD display, trainers explained about the configurations of the LCD display, how to display a character, how to set a character to next line and also explained about the internal structure of the LCD display, and also how to print a custom character in a LCD display. Then the session moved to interfacing of temperature sensor LM35. This session gave idea how to interface the devices and to write the program for LCD and LM35.

### Day 3:

The session was about, assembling of Line follower Robot along with Obstacle Detector Robot with code and explanation.

Participants had to build a mini project from what they learnt from the day 1. The time had given to complete the project was 2 hours. Most of Participants completed the project in 1hours and 30 minutes, which was a good opportunity for them to explore in Arduino. And at the end of 2 hours we were able to build a mini project with the things that Participants learnt from day 1. All 3 day sessions were so interactive and student’s doubts were clarified in that occasion. Participants exhibited their talents by doing projects and it is displayed in the sri Leo Muthu Innovation Center – Embedded Domain.

## Department of Electronics & Communication Engineering

The **valedictory function** was held at Sri Leo Muthu Innovation Center – Embedded Domain on 20<sup>th</sup> September 2019 between 3.30 pm to 4.00 pm. The function was presided over by Management Representative Dr. R.Arun Kumar and Prof. C.Sivaprakash, Head of Department ECE and Resource person Sri. K UdayBhargav, General Director, GenEd Group of Technologies, Bangalore. Students have given the feedback about the 3days Hands- on Training followed by the trainer’s feedback. Prof. K. P. Linija Shylin given vote of thanks and valedictory function ends with National Anthem.

Coordinator

Head of the Department



Sri  
**SAIRAM**  
COLLEGE OF ENGINEERING  
Anekal, Bengaluru

ISO 9001:2015 certified Institution  
Approved by AICTE, New Delhi  
Affiliated to Visvesvaraya Technological University  
[www.sairamce.edu.in](http://www.sairamce.edu.in)

## Department of Electronics & Communication Engineering

