



Avinashilingam Institute for Home Science and Higher Education for Women  
Coimbatore - 641 043  
School of Engineering

Department of Science and Humanities

**Report of the Seminar-cum-Skill Training on 'Robots for Daily Life'**

**19.12.2019**

The Department of Science and Humanities, School of Engineering conducted a Seminar cum Skill Training on "Robots for Daily Life" for I BE students on 19.12.2019. The Resource persons were Mr. Shanmuga Prabhu and Mr. Deepak Chandran, Research Engineers from CADD Technologies, Coimbatore.

The inaugural function commenced with an invocation to the almighty. K.G. Priyadarshini from I BE 'B' section invoked the blessings of the almighty. The Sangamithra from I BE 'C' section welcomed the gathering. Next Dr. S. Malarvizhi, Head of the Department, Science and Humanities delivered the inaugural address. She traced the origin of the word 'robot' and the significant role robots play in daily life these days. She also highlighted the importance of this emerging field and emphasized how students should be equipped with the technical knowledge related to Artificial Intelligence, Machine Learning, IoT and Deep Learning to meet the requirements of industries in future.



**Dr.S.Malarvizhi delivering the inaugural address**

The keynote address was given by Mr. Shanmuga Prabhu, Manager, CADD Technologies who sketched briefly the different sessions that will be handled by the resource persons during the workshop. He pointed out how students will be given hands-on training to stimulate their interest in robotics and how they can carry it forward by exploring further after acquiring basic skills during the workshop.



**Keynote address by Mr. Shanmuga Prabhu, manager, CADD Technologies**

Dr.S.Malarvizhi presented the mementos to the resource persons and the programme ended with a proposal of vote of thanks by Priyanka I BE 'B' section.

**Session 1( 9.30 a.m. – 11.00 a.m.)**

Mr. Deepak Chandran started his session with an arresting video showing how all our daily life can be operated by robots and how dependent our life is on automation. He pointed out the early stages of development in field of robotics and how it evolved during the last several decades. He demonstrated the various components required for assembling an automated equipment. Mr. Chandran also made the session interactive by asking questions and triggering interest in robots among students. He stressed on the importance of coding and software and hardware aspects to be kept in mind while learning artificial intelligence.

Then there was a brief break for tea.

## **Session II (11.10 a.m. – 12.15 p.m.)**

In this session the students were given theoretical knowledge about the various softwares that can be used for building a robot. LabView is the most user friendly software for this purpose. In addition other software like Myrio can also be used. The myRIO Student Embedded Device provides reconfigurable I/O that allows the trainer to teach and implement multiple design concepts with one device.

The participants learnt about Arduino kits, Raspberry Pie and Banana Pie kits.



### **Mr.Chandran teaching coding to students**

Students were shown a demonstration of the features of Labview and how to use those features to reach your objective. The coding and programming part was also briefly explained. The participants had some questions regarding how to download LabView in their laptops and how much it will cost to get a licensed version. MyRio is an advanced version of LabVIEW. MyRIO is a real-time embedded evaluation board made by National Instruments. It is used to develop applications that utilize its onboard FPGA and microprocessor. It's geared towards students and basic applications.

### Session III (1.00 p.m. – 4.30 p.m.)

Parallel sessions were conducted in Language Laboratory and in Classroom W204 by Mr. Deepak Chandran and Mr. Shanmuga Prabhu. Students worked in the computer and using the Arduino kits and assembling units wrote simple programmes and learnt how to switch on and off the LED lights. Students were taught how to give voice recognition commands to operate their kits. There was a demonstration of the various student projects. Mr. Chandran helped the students to address the problems they faced in implementing and operating their projects. Participants learnt how to solder their units and connect their device with the right batteries. They were trained in trouble shooting if something goes wrong.



Mr. Chandran trouble shooting and making the model work

Mr. Shanmuga Prabhu in addition to technical training gave some tips to students how to remain happy and empathise with others. He taught how to remain stress free by practising yoga and meditation and contributing back to society.



Mr. Shanmuga Prabhu teaching life skills

The follow-up session was carried over on 20.12.2019 by Mr. Chandran with the students between 10.00 am to 12.00 noon. The students projects were evaluated by Mr. Deepak Chandran.

### Prize winners

S.No.	Name of the Students	Topic of Project	Prize
1.	R.Priyadarshini (I BE 'B')	Line follower Robot	I Prize
2.	T.Aishwarya (I BE' A') R.Harini (I BE' A') D.Ishwarya (I BE' A') Deepthi Mariam (I BE' A') D.Hariprasadhini (I BE' A')	Obstacle Avoidance Robot	II Prize
3.	S.Heena (I BE' A') S.Anudharshini (I BE' A') Sindhuja P (I BE' C')	Ultrasonic Door Opening	III Prize
4.	Rahman Beevi M.S. (I BE' B')	Clockwise Rotating Robot	III Prize



**R.Priyadharshini I BE 'B' Section working on her project 'Line Follower Robot'**



**Students working on their projects**



**Resource persons with some of the participants**

On the whole the whole workshop was highly informative and educative to students and they benefitted immensely.