

DON BOSCO INSTITUTE OF TECHNOLOGY, MUMBAI
DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

ROBOTICS CLUB & SCHOOL OF AUTOMATION (RCSA)



Report On

Event Name: L1-Robotics-Robosoccer

Academic year: 2018-2019

Semester: Odd

Date: 14th ,15th ,17th and 22nd September, 2018

Time: 9:00 AM - 5:00 PM

WORKSHOP CONDUCTED UNDER SKILL DEVELOPMENT PROGRAM
2018-2019

EVENT REPORT

Name of the Event:	L1-Robotics-Robosoccer
Venue:	Don Bosco Institute of Technology, Simulation lab, Second Floor, B-Wing
Date:	14 th ,15 th ,17 th and 22 nd September, 2018
Time:	9:00 AM - 5:00 PM
Faculty In-charge:	Mrs. Lakshmi Iyer (EXTC Faculty, Skill Development Program Co-ordinator) Mr. Yogesh Gholap (EXTC Faculty, RCSA Co-ordinator)
Workshop Conducted by:	<ul style="list-style-type: none"> • Mr. Kishore Badgujar (EXTC staff) • Vedant Shrungarpawar (BE-EXTC) • Amey More (BE-EXTC) • Sanjana Patil (BE-EXTC) • Tanuja Mehra (BE-EXTC) • Rachita Nair (BE-EXTC) • Jenny Nadar (BE-EXTC) • Raveen Radhakrishnan (BE-EXTC) • Rahul Jagdale (BE-EXTC) • Rahul Panchal (BE-EXTC) • Shreya Nair (BE-EXTC) • Mrinali Parida (BE-EXTC)
Target Students:	FE
Number of participants:	23 students
Workshop Objectives:	<ul style="list-style-type: none"> • To learn to simulate various circuits using simulator software and design the layout using design software and print it on PCB. • To give students a hands-on experience in robotics which will help them to pursue projects in the related field.
Workshop Outcome:	<p>Participants will be able-</p> <ul style="list-style-type: none"> • To simulate various circuits using simulator software. • To design the layout, print and build the PCB. • To build and assemble mechanical chassis for the robot. • To test the various circuitries in robot and debug any errors.
Contents covered in the workshop:	<p><u>DAY 1:</u></p> <ul style="list-style-type: none"> • Installation of circuit simulator and design software. • Explanation of various options and tools available in the simulator software. • Explanation of finding and placing the components in the workspace and connecting it with the wires. • Simulation of simple ac and dc circuits and observation of output. • Simulation of main controlling circuit for remote control of wired bot.

	<ul style="list-style-type: none"> • Explanation of basics options available in design software. • Introduction of schematic and board in the design software. • Building schematic of remote-control circuit. <p><u>DAY 2:</u></p> <ul style="list-style-type: none"> • Designing the board layout of remote-control circuit. • Printing the layout on photo paper. • Printing of the designed layout on the copper clad PCB using ironing. • Etching of the PCB. <p><u>DAY 3:</u></p> <ul style="list-style-type: none"> • PCB drilling, components mounting and soldering. • PCB testing and assembly of remote control. • Introduction to Manual Robotics. • Brief explanation of all components to be used in building the bot. • Chassis assembly and testing of the wired bot. <p><u>DAY 4:</u></p> <ul style="list-style-type: none"> • Competition and Doubt solving session.
<p>Event Flow:</p>	<p>Day 1: 14th September,2018</p> <ul style="list-style-type: none"> • The workshop started at 9:00 am and a short welcome address was delivered by Amey More, followed by Introduction to Robotics Club & School of Automation (RCSA). • The teaching began with Introduction to Simulation software and functions of various tools and features of the software, followed by explanation about how to simulate any dc and ac circuits using a simulator software was done by Sanjana Patil and Raveen Radhakrishnan. • After this, the participants were explained the switch - motor connection required for the remote-control bot by Shreya Nair and then this circuit was simulated on simulator software which was explained by Rachita Nair. • Then, the design software by introduced by Amey More along with explanation of various options and tools available in the software. • The part of finding and placing the components in the workspace and connecting it with the wires (net) for the remote-control circuit was explained by Jenny Nadar. <p>Day 2: 15th September,2018</p> <ul style="list-style-type: none"> • On the second day of the workshop, the layout for the remote-control circuit was designed using the design software which was done by Vedant Shrungarpawar and Tanuja Mehra. • Then, the explanation regarding exporting the image of designed layout and details about printing the layout was shared by Mrinali Parida. • Then, the video of PCB printing, etching and drilling was shown to the participants and explanation regarding the same was given by Mr. Kishore Badgular. • The demonstration for printing the layout designed on the software on the copper clad board using heat transfer technique was given by Mr. Kishore Badgular. • The participants were asked to print their designed circuit on PCB, followed by PCB etching.

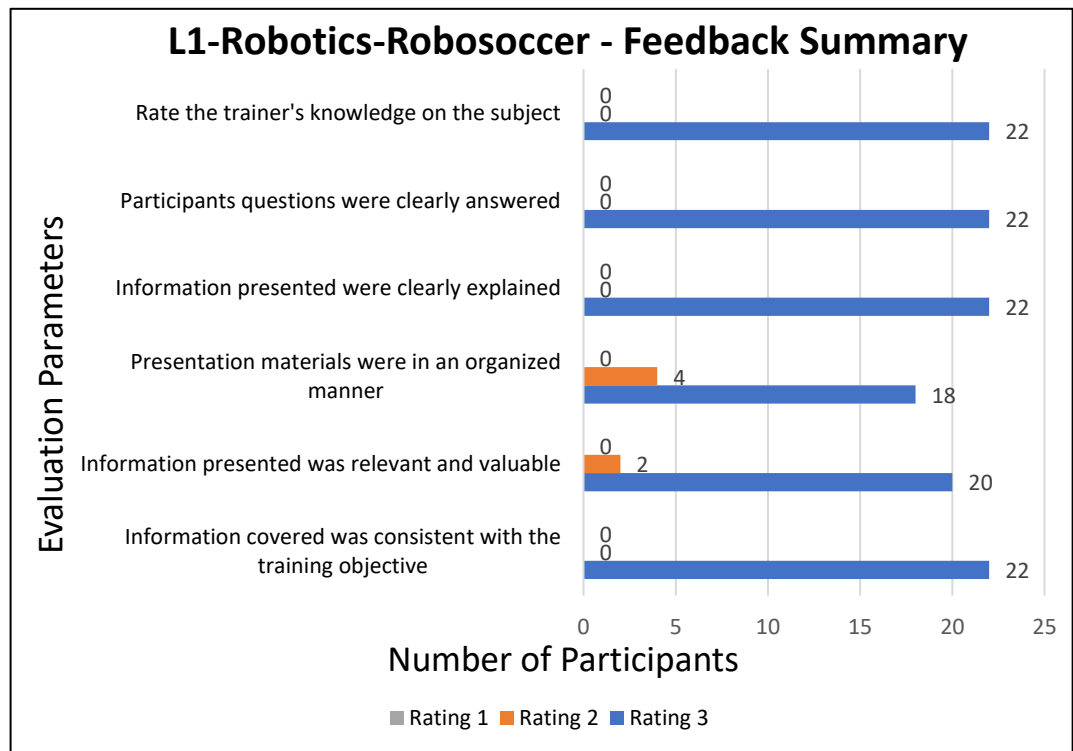
Day 3: 17th September,2018

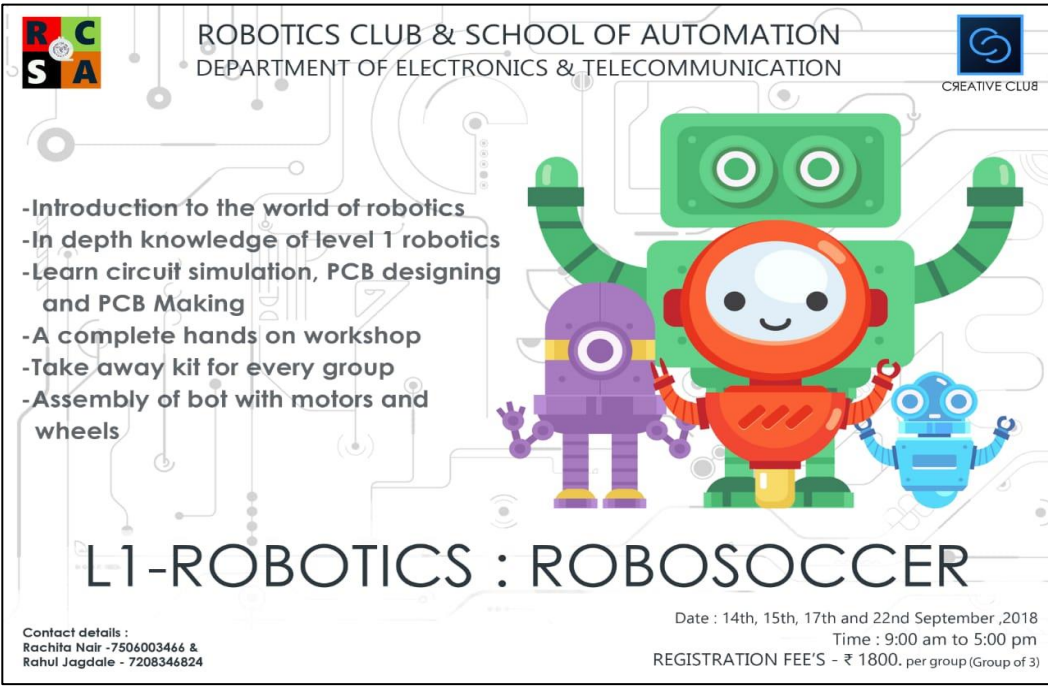

- The third day of the workshop started with distribution of robot kit and components. Then, the participants drilled their PCB and then demonstration of soldering was given by Mr. Kishore Badgujar.
- Then, the component mounting and soldering was done by the participants followed by testing of the remote-control circuit by doing the continuity test.
- After this, the chassis assembly and the switch and motor connections were explained by Rahul Panchal and Rahul Jagdale.
- After building the robot, the participants tested their bot.

Day 4: 22nd September,2018

- On fourth day of the workshop, at 9:00 am, arrangements were done for the competition by the volunteers.
- Groups came up with their bot and competition was begun.
- Judgement was done according to the number of goals done by the bot during the match time.
- **Winners of competition 'ROBOSOCER'**
 - **1st Prize**
 - Sahil Naresh Yelgonda
 - Gavin Sandip Koli
 - Devesh Mahesh Mishra
 - **2nd Prize**
 - Varun Vivekanand Gokarn
 - Kaustubh Kiran Deshmukh
 - Rameshwar Ravi Chavan

**Event Feedback
(Extract from the complete feedback)**



<p>Event Publicity Poster:</p>	 <p>ROBOTICS CLUB & SCHOOL OF AUTOMATION DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION</p> <p>L1-ROBOTICS : ROBOSOCCER</p> <p>Date : 14th, 15th, 17th and 22nd September ,2018 Time : 9:00 am to 5:00 pm REGISTRATION FEE'S - ₹ 1800. per group (Group of 3)</p> <p>Contact details : Rachita Nair -7506003466 & Rahul Jagdale - 7208346824</p>
<p>Event Winner:</p>	
<p>Report Prepared by:</p>	<p>Mrinali Parida (BE-EXTC)</p>
<p>Report Approved by:</p>	<p>Mr. Yogesh Gholap (EXTC Faculty, RCSA Co-ordinator)</p>
<p>Date:</p>	<p>09-10-2018</p>