



BMS

INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Avalahalli, Doddaballapur Main Road, Bengaluru – 560064

DEPARTMENT OF MECHANICAL ENGINEERING

ROBOTICS CLUB

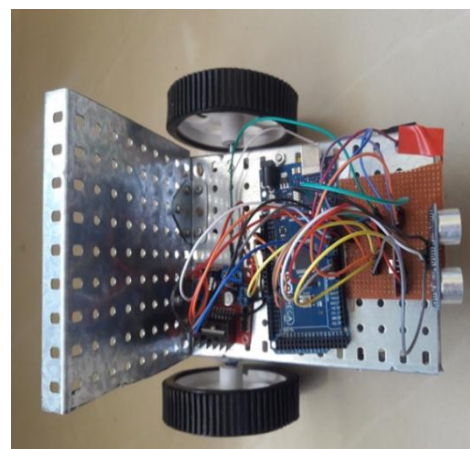
ROBOTICS CLUB

Robotics Club is communities of students who derive pleasure towards the development of platform for robotics for idea development, Preparing for inter and intra level competitions. Students will develop skills in programming their robots to meet specific design challenges.

OBJECTIVES

1. The aim of the Robotics Club will be to support and foster interest in various aspects related to robotics; in particular, mechanical design
2. The club will cater to the interests of hobbyists and beginners in robotics, as well as of seniors who may be involved in troubleshooting, R&D, innovation, and problem-solving
3. The club will also extend support to the participants of robotics-related competitions that are held at all over the India

The students of 4th semester Edwin Easo Mathew, Akash S Nambiar, Abhishek S.A., Kaushik Balasundar, and Aby J Kottoor participated in National Level Technical Paper Presentation Competition held NIE Mysuru for papers presentation, titled "Industrial Environment Monitoring Device" & "Voice controlled wheelchair with hotword detection" and won the 2nd place.

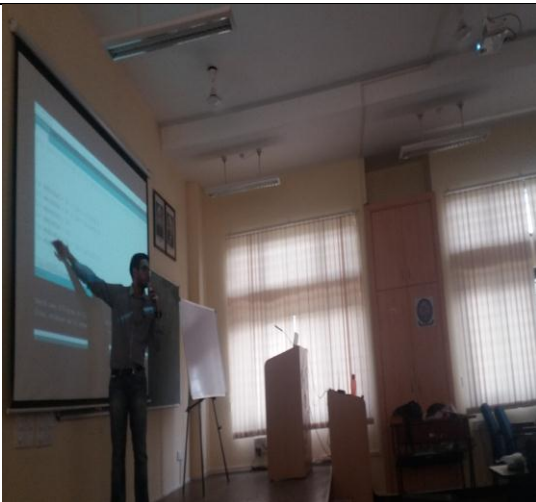


The Robotics club was Introduced and Inaugurated by Mr Shashak, Director of Ezhan Robotics on 31/10/17. He addressed the students of Mechanical Engineering for the need and the advantages of having the need of Robo Club. This initiative enabled the students to understand the development of advancement in the Technologies.



MR SHASHANK INTERACTING WITH THE STUDENTS

A One day basic workshop on Schedule for Beginners Guide To Arduino Based Robotics was organised On 23/3/18. The workshop was focussed on basics on Arduino programming, hands on Training using a robotic Kit . At the end of the course an expert Mr Arvind Nadig, CEO of Li2 innovations, was invited to deliver a lecture on advancement in robotics and the world towards entrepreneurship. The workshop also was extended vin demonstrating 3D printer and EEG brain sensor.



Mr Kaushik organising the workshop



Mr Arvind Nadig,
CEO of Li2 innovations delivering a Talk
on Robotics



Students building the model

Mrs S.Nithya Poornima organized a workshop on Industry 4.0 On 26th October 2018. This workshop enabled to bridge the gap in understanding the latest trends pertaining to automation. Through this workshop we were able to understand that the real machines need a medium to communicate to the virtual world Via IOT. This workshop gave a detail working process and hands on smart IOT sensor that is XDK. This sensor is sufficient to retrofit in measuring data and evaluating productivity



Mr Santhosh delivering a lecture on Industry 4.0

B.M.S. Institute of Technology and Management has initiated an e-Yantra ROBOTICS & IOT CLUB to familiarize students with Internet of Things (IOT) and Robotics technology on 31th May 2019. e-Yantra project is an initiative by IIT Bombay that aims to create the next generation of embedded systems engineers with a practical outlook to help provide practical solutions to some of the real world problems. MHRD funded e-Yantra project- IIT BOMBAY is facilitating setting up of Robotics labs at engineering colleges with the goal of spreading Embedded systems and Robotics education. eLSI - e-Yantra Lab Setup Initiative (eLSI) is a college level program under which colleges are encouraged to setup robotics labs.

e-Yantra Robotics and IOT club objectives :

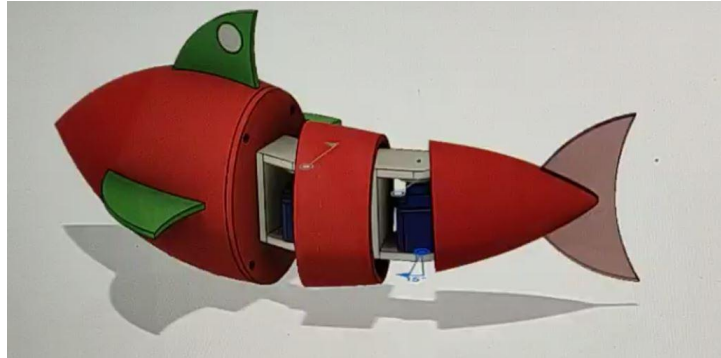
1. We will provide free robotics and IOT training to all interested students.
2. Students will be given hands-on training using Fire-Bird Robot. Fig: Fire Bird Robotic Kit
3. We train the club members to participate in eYRC (e-Yantra Robotics Competition at IIT Bombay)
4. Every month, club members will launch a new IOT / ROBOTICS Project.



E-Yantra Ideas Competition

A team of 4th year students from BMSIT took part in the E-yantra ideas competition. The team consisted of: Kaushik Balasundar – Team Leader (ME),Aby J Kottoor (ME),Akash S Nambiar (ME), Shwetha D (CSE) Under the guidance of Mrs S.Nithya poornima, Assistant Professor.The project they presented was titled – “Hydraulically Actuated Autonomous Nurse (HYAAN)”. They first took part in a MOOC about entrepreneurship which gave them an insight on product ideation, customer requirements, etc. Through the months of October – February, they worked on developing a full-scale model of the project. The aim of the project was to help hospital nurses lift and turn sedated and unconscious patients amid the increasing shortage in skilled nursing staff across the world. They believe that this project will prevent nurses from physical stress and improve efficiency by automating the arduous process of lifting and turning a patient. The full-scale prototype was completed by January and they submitted a video for evaluation which was shortlisted for the Regional Finale that took place at PSG Institute of Technology and Applied Research, Coimbatore, where their efforts were highly appreciated by the judging panel. Their project was then selected for the National Finale, conducted by IIT Bombay, and was commended by the judging panel of acclaimed IIT Bombay professors and Angel Investors. Their project finished in the top 5% of the competition.

A team of 4th year students from BMSIT took part in the E-yantra Theme competition. The team consisted of: Kaushik Balasundar – Team Leader (ME),Aby J Kottoor (ME),Akash S Nambiar (ME), Shwetha D (CSE) Under the guidance of Mrs S.Nithya poornima, Assistant Professor The team first took part in an aptitude round which they cleared to secure a spot in the competition, which was held in two stages. The theme assigned to the team was called "Patrol Fish", where the aim was to design a biomimetic fish for underwater pollutant inspection in the Ganges river. In the first stage, the design of the fish and the PCB was completed. After qualifying to the second stage, the fabrication was completed and a set of tasks assigned were performed. The team then qualified for the National Finals conducted by IIT Bombay, and finished in the top 5% of the competition.



"Patrol Fish