DEPARTMENT OF MECHATRONICS ENGINEERING

Annual Report 2018-19

Sl. No	Activity
1	Technical Talk on Problem Identification and Solution
2	Industrial Visit
3	Technical Workshop on Industrial Automation
4	Technical Talk on Importance of Mechatronics in Robotics
5	Workshop on Project based learning using MATLAB SIMULINK.
6	Technical Talk on Career Guidance- an Overview
7	Technical Talk on MEMS, an Overview

MECHATRONICS & AUTOMATION CLUB FOR XPLORATION- (MAC-X)

Mechatronics and Automation Club for Xploration (MACX) is a Technical and cultural Association run by and for the students of Mechatronic Engineering, MITE Moodbidri, under the guidance of a faculty coordinator. It is headed by the President, Vice President, Secretary, Treasurer, Sports Coordinator and Cultural Coordinator who are nominated and elected by the students of the department.

Since its inception in 2014, MACX has been actively organizing various activities to instill passion, vigor and enthusiasm amongst the students. It has consistently been the pioneer in subduing difficulties of the various aspects of technical fields through guest lectures, workshops, seminars, tech-talks and alumni interactions. The prime motive of the association has been to encourage students to display their hidden talents and to provide a platform to showcase their competence and nourish interpersonal skills which would help them in realizing their dreams.

The association also focuses on keeping up with the present trends by actively organizing workshops on current technologies and guiding students for higher education by various interactive sessions. Students are also mentored and encouraged to participate in social impact programmes such as blood donation camps, Swachh Bharat Campaigns, Visits to Orphanages and old age homes and providing selfless service to rural areas to aid in overall development.

MTR01: Technical Talk on Problem Identification and Solution

The talk was held on 28th August 2018. 120 students of Mechatronics Engineering attended this tech talk. Mr. Shahid Memon, Technical Director of Venora Robots was the resource person. He spoke about few products that are designed and fabricated by Venora Robots. He specifically spoke about the Rubber Tapping Machine. He explained how the problems were identified, what constraints were taken into consideration and how the problem was solved. He ended his talk by giving insights into various technologies and inspiring the students to innovate and think differently.

MTR02: Industrial Visit

This Industrial Visit was organised by the Mechatronics and Automation Club for Exploration (MACx) on Saturday, 08/09/2018 to the **Bhoruka hydro power plant**. 35 students of 7thsemester Mechatronics Engineering were accompanied by **2** faculty members. This plant is near the famous religious place Dharmasthala across the Neria river. The plant has an installed capacity of 9MW with 2 Horizontal S-type Kaplan turbines and 2 synchronous type generators

MTR03: Technical Workshop on Industrial Automation

. This Workshop was conducted for 3 days from 26 October 2018 to 28 October 2018. Mr. Akhil K- Branch Manager of Bangalore Station-2 SMEC Labs. Mr. Kompala Veera Karthik, Senior Technical Support SMEC Labs and Mr. Akhil Kishore, Service Engineer, SMEC Labs were the resource persons. 125 students of Mechatronics Engineering attended this workshop. On the first day the resource persons gave introduction, Architecture & Features of PLC along with Basic Programming, Simulation and Communication with PLC. On the second day they covered the topics on Introduction to SCADA, SCADA Designing and Interfacing with PLC and Applications. The last day they provided hands-on training to interface with PLC and SCADA.

MTR04: Technical Talk on Importance of Mechatronics in Robotics

The talk was held on 28th August 2018. Mr. Krishnan Nambiar, Chief Executive Officer of Venora Robots was the resource person. 130 students of Mechatronics Engineering had attended this tech talk. Mr. Krishnan Nambiar spoke about the importance of multidisciplinary technologies and gave ideas for the students about how they can use this multidisciplinary knowledge and skill sets to innovate and think out of the box. He spoke about how he integrated his knowledge of robotics and architecture to come up with new ideas and become a successful entrepreneur.

MTR05: Workshop on Project based learning using MATLAB SIMULINK.

This was a two-day workshop organized by ISTE and MACX, Mechatronics Department on 5th and 6th March 2019. A total of 35 students from mechatronics department participated in the workshop. Vijay Kumar Yadav was the resource person from Technoclog. He briefed the students about MATLAB, its scope, toolboxes, importance of MATLAB & about working with the command window. Students had hands-on sessions on MATLAB software which included matrix operations, arrays, working with M-file, built in functions and many more mathematical operations.

MTR06: Technical Talk on Career Guidance - an Overview

This tech talk was held on 16th Feb 2019 with Mr Ajay Shenoy, Mechatronics engineer and Mr. Rajaram Pai, Mechanical engineer as the resource person. The talk from the alumni of MITE, had 120 Students of Mechatronics Engineering attending it. Both the resource persons motivated the students to always dream bigger and strive towards achieving their goals. They also discussed about career opportunities in field of automation both in India and abroad.

MTR07: Technical Talk on MEMS, an Overview

This talk was held on 1st September 2018 and around 95 students of Mechatronics attended this tech talk. Dr. Satyabodh M Kulkarni, professor, department of mechanical engineering at NITK Surathkal was the resources person. He gave an in depth talk about MEMS. He briefed the students introducing the MEMS technology, and explaining about the various components, design parameters & design considerations. The students were introduced to the field of sensors and actuators technologies that are incorporated in MEMS systems nowadays. Dr. Kulkarni explained the wide range of applications for MEMS systems and scope of MEMS systems in the future.