



Opportunity runs deep™

MARINE TECHNOLOGY SOCIETY QUARTERLY REPORT ON IITD MTS STUDENT CHAPTER



Agenda

To motivate the researchers and students to work in the field of marine technology, opportunities and challenges in the field of marine technology. To spread awareness about the recent work going in the field of marine technology, about the MTS, scholarship, knowledge and carrier opportunities in the field of marine technology.

MTS STUDENTS CHAPTER

QUARTERLY REPORT OF MTS STUDENT CHAPTER

The “**Inauguration of MTS STUDENT CHAPTER**” was organized on **7th June, 2019** in IIT Delhi campus. In the ceremony, **Dr. R.Venkatesan, Chairman, MTS India Section** handed over the official approval of the MTS student section to **Prof. Monika Aggarwal, Faculty Advisor of the MTS-IITD Student Chapter**. He briefly explained about the various opportunities and mentorship activities for the student section. A lecture on “**Communication Technology in Marine Sector**” was presented by **Mr. K.Nandakumar CEO, ELEKTRONIK LAB**. This was followed by a series of motivational talks by **Prof. Rajendra Bahl, Prof A.D. Rao, Prof S.D. Joshi** and other dignitaries present in the ceremony. **Farheen Fauziya**, the chairperson of the Student Chapter, listed out the future plans on MTS Student Chapter and introduced office bearers **Bipin Kumar (Vice-chairperson), Payal Gupta (Treasurer) and Gunjan Matta (Secretary)**. The ceremony was concluded by Vote of Thanks given by Prof. Monika Aggarwal.

In this past quarter, **Prof. Monika Aggarwal** called meeting with the students four times for the discussion of upcoming activities. She assigned responsibility to all the members so that events can go on smoothly. We maintained the minutes of each meetings

The student section has organized distinguish lectures on different topics. On **4th September, 2019**, the first lecture was conducted by **Dr Saakshi Dhanekar** on “**Nano-Sensor- Development and applications**” in our own campus. Dr. Saakshi Dhanekar is working as a Research Scientist at Centre for Biomedical Engineering, Indian Institute of Technology Delhi. She works in the area of fabrication to prototype development of gas- and biosensors. Her talk was primarily focussed on the development of the nano-sensors and their usefulness to the common man. An in-house fabrication from chip to the prototype of alcohol breath analysers was presented. Few other works related to diabetes sensors, MEMS, micro-fluidics and bio-sensors were discussed.



The second lecture was conducted by **Prof. Vimlesh Pant** on **6th September, 2019** in our own campus. The lecture was based on “**Oceanic response to tropical cyclones in the Bay of Bengal**”. Dr. Vimlesh Pant is an Associate Professor at Centre for Atmospheric Sciences, IIT Delhi. He carried out research on Marine Aerosols over the Indian Ocean and at Antarctica at IITM Pune. Tropical cyclones (TCs) which are one of the major natural disasters that can produce devastating damages to the property and loss of life in coastal areas. In his talk, he discussed the role of TCs in changing the upper-ocean characteristics based on numerical models, OMNI buoy (NIOT) measurements, Argo profiles, and wave-rider buoy. The mixing generated due to near-inertial oscillations under cyclonic conditions was also discussed. Advantage of using a coupled atmosphere-ocean model over the uncoupled model for a better simulation of track and intensity of TCs was highlighted.



On **23rd September, 2019**, third distinguished lecture was conducted by **Prof. Ranjan. K. Mallik** on “**Non-coherent Reception for Multiple Antenna Systems**”. The venue was our very own campus. Ranjan K Mallik is an Institute Chair Professor in the Department of Electrical Engineering, Indian Institute of Technology (IIT) Delhi. He is a member of Eta Kappa Nu, and a fellow of IEEE, the Indian National Academies INAE, INSA, NASI, and IASC, TWAS, IET (U.K.), IETE (India), and The Institution of Engineers (India). He served as an Area Editor and an Editor for the IEEE Transactions on Wireless Communications, and as an Editor for the IEEE Transactions on Communications. In his lecture, he discussed non coherent reception for SIMO and MIMO antenna system.





Lab Visit in Centre for Applied Reseach in Electronics in IIT Delhi



Lamp lighting ceremony by the Dignitaries



Chief Guest and Guest of Honor addressing the Gathering



Chief Guest handed over MTS Student Chapter Certificate and Memento