Industrial Visit to ISRO –Master Control Facility

Department of Electronics and Communication Engineering had arranged a one day industrial Visit to ISRO-Master Control Facility, Hassan on 11th February 2020, 35 students of Third year and Final year along with two faculties had taken part.

About MCF

Master Control Facility (MCF) at Hassan in Karnataka and Bhopal in Madhya Pradesh monitors and controls all the Geostationary/Geosynchronous satellites of ISRO, namely, INSAT, GSAT, Kalpana and IRNSS series of satellites.MCF has three internal division; the space craft control centre, Mission control centre and the Earth station MCF is responsible for Orbit Raising of satellites, In-orbit payload testing and On-orbit operations all through the life of these satellites. MCF activities include round-the-clock Tracking, Telemetry & Commanding (TT&C) operations, and special operations like Eclipse management, Station-keeping maneuvers and recovery actions in case of contingencies. MCF interacts with User Agencies for effective utilization of the satellite payloads and to minimize the service disturbances during special operations.

About Industrial Visit

Around 35 students from our department participated in the industrial visit. We left the college at 6.00 am and reached the destination by 11.00 am .Students was guided by a senior person of the company. In MCF, Hassan students were given a brief introduction on India's space program and the role of MCF in monitoring the satellites. Later an elaborated video was shown explaining various work done at the MCF and also on the progress achieved by ISRO.

Students got the opportunity to learn about the various types of satellites present in the orbit ranging from 400kms upto 40000kms and beyond. Also they have learnt about the history of astronomy and India journey in this field from Aryabatta to IRNSS. Students got the opportunity to know about the different stages of GSLV rocket starting from booster, liquid core stage, cryogenic stage and payload released in the space. They learnt how the Geostationary and Geosynchronous satellites are launched in the orbit and are controlled from ground station located at Hassan and

Bhopal. Students viewed 11-13m antennas spread over the vast area of MCF. These antennas can be tune to 360 degree and elevation angle of 0 to 90 degree. The senior scientist explained why ISRO selected Hassan as the location for monitoring and controlling the satellites. Finally, students came to know why ISRO is recruiting meritorious candidates of different streams of Engineering. The visit to this research place was a learning and knowledge gaining experience.