

VPM's MAHARSHI PARSHURAM COLLEGE OF ENGINEERING, VELNESHWAR,
TAL-GUHAGAR, DIST-RATNAGIRI

INDUSTRIAL VISIT REPORT

Industrial Visit (IV) to "Giant Metrewave Radio Telescope (GMRT)", P.B. No.6, Narayangaon, Tal-Junnar, Dist.-Pune, and State Maharashtra was organized by Electronics and Telecommunication department (EXTC) of VPM's MAHARSHI PARSHURAM COLLEGE OF ENGINEERING on 28th FEB and 1st March 2018. Total 27 EXTC students (SE, TE and BE) along with 7 faculty members i.e. Mr. Prashant Mahajan, Mr. GajananKhapre, Mr. Deepak Dange, Mr.SushilSirsat, Mr. SufiyanMukadam, Mr. VinodSalunkhe, and Ms. Bhakti Gangan

About GMRT

NCRA has set up a unique facility for radio astronomical research using the metrewavelengths range of the radio spectrum, known as the Giant Metrewave Radio Telescope (GMRT), it is located at a site about 80 km north of Pune. GMRT consists of 30 fully steerable gigantic parabolic dishes of 45m diameter each spread over distances of up to 25 km. GMRT is one of the most challenging experimental programmes in basic sciences undertaken by Indian scientists and engineers.

The metre wavelength part of the radio spectrum has been particularly chosen for study with GMRT because man-made radio interference is considerably lower in this part of the spectrum in India. Although there are many outstanding astrophysics problems which are best studied at metre wavelengths, there has, so far, been no large facility anywhere in the world to exploit this part of the spectrum for astrophysical research.

GMRT is an indigenous project. The construction of 30 large dishes at a relatively small cost has been possible due to an important technological breakthrough achieved by Indian Scientists and Engineers in the design of light-weight, low-cost dishes. The design is based on what is being called the '**SMART**' concept - for **Stretch Mesh Attached to Rope Trusses**.

Students were very eager to visit GMRT and shown keen interest to interact with the engineers at GMRT.

In the afternoon at 12:00 PM we visited GMRT. Since it was the “Science Day” and GMRT was open to all, it had become a crowded place. We gathered under the giant parabolic antenna and was guided by Mr. Nalavade (GMRT, Technical Assistant). The technical Assistant not only explained purpose of GMRT but also elaborated the working of giant antennas. The session was very informative. The working of the giant antenna was divided into many blocks and engineers were assigned to explain each block. Our students asked many doubts regarding working of antenna and were satisfactorily entertained by engineers at GMRT. The session was concluded at 4:30PM.

The next day again we visited GMRT between 11:00 AM to 1:00 PM. various projects from nearby colleges were displayed On “Science Day” at GMRT. After looking at projects at GMRT, our students are motivated with new ideas, especially the SE and TE students.

We express our sincere thanks to the Technical Assistant and all the Engineers at GMRT for their support. We also thank our Principal Dr. A. M. Chincholkar and HOD of EXTC Mr. Sandeep Dwivedi who motivate us to arrange such an informative program.

The industrial visit to GMRT was informative, interesting and successful.





Mr. Prashant Mahajan
IV Co-ordinator.