Late Shri Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Shirgaon, Virar (East), Tal: Vasai, Dist: Palghar-401305, Maharashtra.
Website: www.viva-technology.org

Department of Electronics and Telecommunication Engineering

Report on ISTE Approved One Week Short Term Training Program on

"Emerging Areas in Antenna and Meta material Technology"

Organized by Electronics and Telecommunication Department

Designing antenna and its feeding network is a challenging problem but it has now become more complicated than before due to increasing demand for more compact and efficient wireless devices. With increasing demands for high data rate and seamless coverage, ultra wideband, multiband, reconfigurable/wearable and high frequency antennas are required to develop both commercial and defence applications. The purpose of this STTP is to bring together researchers & PG students from academia and Engineers & Scientists from industry and R&D institutes to have discussions on the recent advances in the field of antenna. This program also deals with the basic understanding, designing and simulation of the Microstrip and Horn Antenna Using IE3D software which will provide practical exposure to the participants The STTP aims at equipping teachers with skills and knowledge in order to create a better society by guiding, training and motivating the students to take up research projects.

Topics Covered in STTP on "Emerging Areas in Antenna and Meta material Technology"

- Meta material and DGS based Microstrip Patch antenna
- Design of Microstrip and Horn antenna in using IE3D software
- Feeding mechanism and Reconfigurable antenna
- Antenna and optical fibre
- Microstrip patch antenna array using defective ground structure for wireless communication

At the end of STTP participants are able to

- ✓ To get familiarized with antenna feeding methods.
- ✓ To learn about recent trends of research in field on antenna.
- ✓ After the completion of this course the participants will be able to design, simulate Microstrip and Horn antenna using IE3D software
- ✓ Develop innovative design for practical applications in various fields
- ✓ Enhance the basic knowledge of reconfigurable antenna and Analyze application in various areas

The University of Mumbai introduced revised curriculum which includes, RF modelling and antenna as compulsory subject for the third year students in SEM V

Late Shri Vishnu Waman Thakur Charitable Trust's
VIVA Institute of Technology
Shirgaon, Virar (East), Tal: Vasai, Dist: Palghar-401305, Maharashtra.
Website: www.viva-technology.org

Department of Electronics and Telecommunication Engineering

As new developments are introducing in industry day by day demanding compact size and high bandwidth , it was felt necessary that the teaching faculty also become competent in the said technology. With keeping this as an intension the ISTE approved STTP was conducted from 3rd January to 7th January, 2017 in VIVA Institute of Technology, Electronics and Telecommunication Engineering Department.

Details of the speakers is as under

SN.	**Name of the Guest Speaker**	**Details of the Speaker**	**Topics Addressed**	Date
1	Mrs. Rashmi Pandhare	Assistant Professor, Datta Meghe Institute of Engineering Technology and Research , Wardha	Microstrip patch antenna array using defective ground structure for wireless communication	03/01/2017
2	Dr. Uday Pandit	Assistant Professor, SFIT, Borivali, Mumbai.	Basic antenna developments. Tunability and Reconfigurability of antenna Need of Metamaterial in antenna design. Need of DGS structures in antenna design. Smart antenna design.	04/01/2017
3	Mr. Ameya Kadam	Associate Professor, DJSCE, Mumbai.	Design of microstrip and horn antenna.	05/01/2017
4	Mr. Shailendra Shastri	Assistant Professor, TCET, Knadivali,Mumbai(Pursuing Ph.D. from IIT Bombay)	Feeding methods for balanced and unbalanced antenna. AdvantagesandDisadvantages. What is reconfigurable antenna? Different aspects under reconfigurable antenna. Applications of Reconfigurable antennas. Different components used to reconfigure antenna their advantages and disadvantages.	06/01/2017

Participants were the teaching faculty of Engg. College. Total of 17 faculty members participated in the One week Short Term Training Program conducted.

In valedictory function institute had received the feedbacks from the participants that they have learned and enhanced their knowledge in this STTP and they would always want to attend this kind of STTP in this institute once again. The overall feedback of the Training Program was encouraging and was highly rated by the participants