



Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Approved by AICTE, New Delhi, DTE, Government of Maharashtra, Affiliated to University of Mumbai
At- Shirgaon, Post-Virar (E.), Tal-Vasai, Dist-Palghar – 401 305.

Tel.: 777 000 2544 • Website : www.viva-technology.org

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Department of Electronics and Telecommunication Engineering

Course Name:	Bridge course on Basics of Image and Signal Processing
Name of the Faculty:	Mrs. Madhura Ranade
Designation:	Assistant Professor
Organization/Institution:	Viva Institute of Technology
Duration:	10 th July to 15 th April 2023
Time:	30 hours
Number of Students:	18

Programme Summary:

Electronics & Telecommunication Engineering Department of VIVA Institute of Technology organized a 30 hours' Bridge course on Basics of Image and Signal Processing during 10th July to 15th April 2023 conducted by Mrs. Madhura Ranade.

The objective of the Basics of Image and Signal Processing for EXTC Engineering training program is to learn advanced MATLAB tools in signal and image processing that will help to implement new ideas and solve difficult problems. Learning of signal and Image processing will help to apply research to interesting and challenging real-world problems. This course has provided comprehensive coverage of concepts in Signal and Image processing and its applications while providing opportunities for self-paced practical's.

The purpose of this course was have discussions on various ways in which these software tools can be used to carry out research.

Topics Covered in Bridge course on Basics of Image and Signal Processing

- MATLAB Desktop and Editor
- Commands
- Vectors and Matrices
- Array Indexing
- Array Calculations
- Request Multiple Outputs in Function Calls
- Use MATLAB Documentation
- Project - Stellar Motion
- Project - Compare Stellar Spectra
- Introduction to Image Processing



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- Images in MATLAB
- Image Segmentation
- Preprocessing and Post Processing Techniques
- Classification and Batch Processing
- Batch Processing with Image Data stores

As new developments are introducing in industry day by day demanding expertise in these software, it was felt necessary that the student also become competent in the said field.