

#### Late Shri. 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 : <u>www.viva-technology.org</u> E-mail: <u>contact@viva-technology.org</u> / <u>principalvit@vivacollege.org</u>

### **Department of Mechanical Engineering**

Topic Name: Bridge Course on Ultrasonic Non-Destructive Testing

Name of the Guest Speaker: Faculty, Department of Mechanical Engineering

**Designation:** Assistant Professor

Organization/Institution: Viva Institute of Technology

Date: January 2nd to January 6th, 2018

## **Programme Summary/Details:**

VIVA Institute of Technology's Department of Mechanical Engineering conducted a bridge course on Ultrasonic Non-Destructive Testing (UT) Method from January 2nd to January 6th, 2018. The course was specifically designed for final-year students of mechanical engineering, aiming to provide them with a comprehensive introduction to UT as a powerful tool for non-destructive testing in various industries.

The course syllabus covered essential topics related to UT methodology. Students were introduced to the basic principles and working mechanisms of ultrasonic testing. They gained insights into different types of ultrasonic waves, wave propagation, and interaction with materials. Additionally, the course included practical aspects such as equipment operation, probe selection, calibration procedures, and data interpretation.

Throughout the course, students actively engaged in hands-on training, acquiring skills in conducting UT inspections on different materials and components. They learned how to interpret ultrasonic waveforms, identify discontinuities, and assess material integrity. Moreover, the course emphasized the importance of proper inspection techniques, safety precautions, and quality assurance. By the end of the course, the students were equipped with fundamental knowledge and practical skills in UT methodology. They developed the proficiency to apply UT techniques in real-world scenarios, ensuring the quality and reliability of materials and components in industries that rely on non-destructive testing.

In conclusion, the bridge course on Ultrasonic Non-Destructive Testing (UT) Method provided final-year mechanical engineering students at VIVA Institute of Technology with a comprehensive understanding of UT principles, practical skills in equipment operation, and the ability to interpret ultrasonic waveforms. The course served as a valuable platform for enhancing



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their knowledge and competence in non-destructive testing, preparing them for future endeavors in the mechanical engineering field.