



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 : www.viva-technology.org

E-mail: contact@viva-technology.org / principalvit@vivacollege.org

Department of Mechanical Engineering

Topic Name:	Introduction to Magnetic Particle Non-Destructive Testing
Name of the Guest Speaker:	Faculty, Department of Mechanical Engineering
Designation:	Assistant Professor
Organization/Institution:	Viva Institute of Technology
Date:	December 30th, 2019, to January 4th, 2020

Programme Summary/Details:

From December 30th, 2019, to January 4th, 2020, the Department of Mechanical Engineering at VIVA Institute of Technology organized a distinctive bridge course on the Magnetic Particle Non-Destructive Testing (MT) Method. This enlightening course was tailored specifically for final year students, aiming to provide them with a comprehensive introduction to this specialized testing technique widely used in industries for flaw detection.

Throughout the course, students delved into the fundamental principles and applications of Magnetic Particle Testing. They gained a solid understanding of the magnetic fields and their interaction with ferromagnetic materials, enabling them to detect surface and subsurface defects effectively. The course explored various techniques, including dry powder, wet fluorescent, and wet visible magnetic particle testing, along with the associated equipment and procedures.

Active learning and practical training were emphasized during the course, enabling students to acquire hands-on experience in conducting Magnetic Particle Testing. They engaged in practical exercises to prepare test specimens, apply magnetic particles, and interpret the resulting indications accurately. Safety protocols, equipment calibration, and proper inspection techniques were also emphasized, ensuring students' proficiency in carrying out MT inspections. By the end of the course, students developed a comprehensive understanding of Magnetic Particle Testing and its practical applications. They gained proficiency in applying various techniques, interpreting test results, and adhering to safety guidelines.

Overall, the bridge course on the Magnetic Particle Non-Destructive Testing (MT) Method provided final-year students with a unique opportunity to explore this specialized testing technique. The knowledge and skills acquired during the course will empower them to excel in industries where flaw detection and quality control are critical. With this foundation, the students



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are well-prepared to contribute effectively to the field of mechanical engineering and meet the demands of the industry.