

Report on the NDT Training Visit at Ultra Tech NDT Training, Evaluation, and Consultant

- **Date of Visit:** 05-04-2025; **Time:** 11:00 AM Onwards
- **Organized by:** Metallurgy Engineering Department, Government Engineering College, Gandhinagar
- **Location:** Ultra Tech NDT Training, No. 411, 4th Floor, Devraj Mall, India Colony Road, Opposite Haveli Mandir, Bapunagar, Ahmedabad-382350, Gujarat, India.
- **No. of Beneficiaries:** 17 Students of (4th and 6th Sem Metallurgy) along with Dr. H. H. Jadav and Dr. D. V. Mahant

Introduction

On 5th April 2025, a group of 17 students from the 4th and 6th semesters of the Metallurgy Engineering Department at Government Engineering College, Gandhinagar, visited Ultra Tech NDT Training, Evaluation, and Consultant in Bapunagar, Ahmedabad. The visit aimed to provide students with valuable insights into the Non-Destructive Testing (NDT) methods, which are vital in various industries, especially in materials engineering. The primary focus of the visit was to introduce and demonstrate four key NDT methods: Liquid Penetrant Testing (LPT), Magnetic Particle Testing (MPT), Ultrasonic Testing (UT), and Radiographic Testing (RT).



**GOVERNMENT ENGINEERING COLLEGE
SEC 28, GANDHINAGAR**



Metallurgy Department

ORGANIZE

**Visit for Demonstration of NDT
to
ULTRATECH, AHMEDABAD**

MR. YATIN RAVAL



Date: APRIL 05, 2025 (SATURDAY)



Time: 11:00 AM Onwards

**For students of
HONORS/MINOR PROGRAM IN
Industrial Based Non Destructive Testing and
Practices
offered by Metallurgy Department**

**Convener
Dr. I B Dave
Prof. & Head
Metallurgy Department
GEC, Gandhinagar**

**Patron
Dr. S P Dave
Principal
GEC, Gandhinagar**

**Coordinators
Dr. H.H.Jadav
Dr. D.V.Mahant
GEC, Gandhinagar**

Visit Overview

The session began with an introductory lecture on Non-Destructive Testing (NDT), where Mr. Yatin D. Raval, the owner of Ultra Tech, provided a comprehensive overview of the principles, importance, and applications of NDT in industrial settings. The students were then introduced to the four primary NDT techniques:

Liquid Penetrant Testing (LPT): The method for detecting surface-breaking defects in non-porous materials.

Magnetic Particle Testing (MPT): Used for detecting surface and slightly subsurface defects in ferromagnetic materials.

Ultrasonic Testing (UT): A technique for measuring the thickness of materials and detecting internal defects using high-frequency sound waves.

Radiographic Testing (RT): Involving the use of X-rays or gamma rays to examine the internal structure of materials and detect defects.

Each method was demonstrated practically, and students had the opportunity to observe and engage with the equipment used in these techniques. This hands-on experience helped solidify their theoretical understanding of NDT methods and their applications in real-world engineering practices.

Participants and Benefits

The visit involved 17 participants, comprising students from the 4th and 6th semesters of the Metallurgy Engineering Department at GEC Gandhinagar. The students greatly benefited from the session, gaining practical insights into the operation and application of advanced NDT technologies. The exposure to these techniques is essential for their future careers, as NDT plays a critical role in ensuring the quality and integrity of materials in industries such as aerospace, automotive, construction, and manufacturing.

Conclusion and Future Collaboration

The visit to Ultra Tech NDT Training, Evaluation, and Consultant was an enriching experience for the students, providing them with a deeper understanding of NDT and its various methods. We would like to express our sincere gratitude to Mr. Yatin D. Raval and the team at Ultra Tech for their warm hospitality and insightful demonstrations. We look forward to further collaboration between Ultra Tech and the Metallurgy Engineering Department at GEC Gandhinagar to enhance the learning experiences of our students and provide them with more such valuable opportunities in the future.

Acknowledgment

We would like to thank Ultra Tech NDT Training, Evaluation, and Consultant for their support in making this visit possible, and we are hopeful that this collaboration will continue to benefit both institutions in the future.





સરકારી ઈજનેરી કોલેજ

(ગુજરાત સરકાર)

પશુ જૈવિકની બાજુમાં, સેક્ટર-૨૮, ગાંધીનગર - ૩૮૨૦૨૮

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No. GECG/MET/Industrial Visit/2025/

Date : 07-04-25

To,

Mr. Yatin D. Raval

Owner, Ultra Tech

NDT Training, Evaluation, and Consultant

Bapunagar, Ahmedabad - 382350, Gujarat, India.

Dear Sir,

We would like to express our sincere gratitude for taking the time to demonstrate the Non-Destructive Testing (NDT) facilities at your esteemed premises. The in-depth explanation and hands-on demonstration of various NDT methods, such as LPT, MPT, UT, and RT, have truly inspired our students. Your expertise and insights have provided them with a deeper understanding of these techniques.

We are optimistic about the future and look forward to fostering a continued collaboration between Ultra Tech and the Metallurgy Department, Government Engineering College, Gandhinagar. Such interactions will undoubtedly be beneficial for both institutions.

We eagerly anticipate your continued support in the future.

Thanking you once again,

With warm regards,

Dr H. H. Jadav

Asst. Prof. Metallurgy Dept.

Dr. I B Dave

HOD, Metallurgy Dept.