छोटुभाई गोपालभाई पटेल प्रौद्योगिकी संस्थान, बारडोली
Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli

Uka Tarsadia University

Department of Mechanical, Automobile, and Mechatronics Engineering, C G Patel Institute of Technology

Two-day workshop

on

"Welding Engineering and NDT Practices"

Date	14th and 15th March 2024
Venue	H-205, CGPIT and CGPIT workshop
Time	8:30 am to 3:30 pm
Total Number of Participants	31
Name of Expert	**Expert 1:** Mr. Harshit Desai Inspection specialist Owner of Linq Engineering Services,Surat **Expert 2:** Meet Patel Certifications: 1. Certified Welding Inspector (AWS-CWI) (Certificate No.: 24011211) 2. ASNT Level-II UT, RT, MPT, LPT, VT (More than 5 Years of Experience) 3. BARC Level-I Present Work: Partner at M/s. UltraSparc Engineers Technical Manager at M/s. Ultratech Engineers **Expert 3:** Prof. Keyur Tandel Assistant Professor, Mechanical Engineering Department Government Engineering College, Dahod

Event Coordinator	**1)** Mrs. Palak H. Desai Assistant Professor, Mechanical/Mechatronics/Automobile Engineering Department, CGPIT, UTU **2)** Mr. Jayeshkumar R. Parekh Assistant Professor, Mechanical/Mechatronics/Automobile Engineering Department, CGPIT, UTU
Program Objective	To make students aware of industrial welding and NDT practices.
Program Outline	The workshop was categorized into two sessions for both days. The first session focused on the theory part, and the post-lunch session was a hands-on session. On the first day, students got hands-on knowledge of various NDT practices, and on the second day, they were made aware of SMAW, GTAW, and GMAW welding techniques.
Program Outcome	The workshop aimed to make students aware of industrial welding and NDT practices. The program was successful in providing students with hands-on knowledge of various NDT practices and welding techniques. The workshop helped in enhancing the students' practical knowledge and skills for their future careers.

Schedule of Event:

Day 1: 14/3/2024

TIME	CONTENT
8:30 to 9:30	Registration
9:30 to 10:00	Inauguration
10:00 to 12:30	**Lecture-I**: **Speaker**: Mr. Harshit Desai Inspection specialist Owner of Linq Engineering Services

12:30 to 1:30	**Lunch Break**
1:30 to 3:30	Hands-on practice on NDT(MPT, Radiography, UT) methods

Day 2: 15/3/2024

TIME	CONTENT
9:00 to 11:00	**Lecture-I**: **Speaker**: Meet Patel Partner at M/s. UltraSparc Engineers Technical Manager at M/s. Ultratech Engineers
11:00 to 1:00	**Lecture-II:** **Speaker:** Prof. Keyur Tandel Assistant Professor, Mechanical Engineering Department Government Engineering College, Dahod
1:00 to 2:00	**Lunch Break**
2:00 to 3:30	Hand-on practice on SMAW, GTAW and GMAW

List of Participants:

Sr. No.	Enrollment No.	Name	Branch
1	202003103510006	Smitkumar Arvindbhai Prajapati	Mechanical Engineering
2	202003103510021	Meetkumar Rakeshbhai Patel	Mechanical Engineering
3	202003103510040	Kaushal Navneetbhai Chhatraliya	Mechanical Engineering
4	202003103510044	Dhruv Mahendrabhai Tatkare	Mechanical Engineering
5	202003103510045	Aman Vijay Prajapati	Mechanical Engineering
6	202003103510050	Havi Kunal Shah	Mechanical Engineering
7	202003103510061	RAJ RAMESHCHANDRA TANDEL	Mechanical Engineering
8	202003103510219	Snehashis Ashish Saha	Mechanical Engineering
9	202103103520006	HARSHALKUMAR JITENDRABHAI PRAJAPATI	Mechanical Engineering

10	202103103520051	BHAVINKUMAR KIRITBHAI MISTRY	Mechanical Engineering
11	202103103520053	Dhir Sanjaybhai Desai	Mechanical Engineering
12	202103103520055	A Chaudhari Anand	Mechanical Engineering
13	202103103520060	Tarpan Rameshbhai Modi	Mechanical Engineering
14	202103103520061	Nishil Nishil Shah Shah	Mechanical Engineering
15	202103103520107	Sahil Devangbhai Jogi	Mechanical Engineering
16	202103103520109	ADITYA KALPESH PAREKH	Mechanical Engineering
17	202103103510144	Aryan Patel	Mechanical Engineering
18	202103103510261	Shashank Rohit	Mechanical Engineering
19	202203103520006	Mistry Cherag	Mechanical Engineering
20	202203103520007	MEET TANK	Mechanical Engineering
21	202203103520013	Tigar Bhanupratap Dhananjay Rai	Mechanical Engineering
22	202203103520020	NISHITH VIMALKUMAR GANDHI	Mechanical Engineering
23	202203103520026	Viraj Amar Desai	Mechanical Engineering
24	202203103520063	Kunal Rajesh Salunae	Mechanical Engineering
25	202203103520067	PENTAKOTA LEELA SAI RAM ANIL	Mechanical Engineering
26	202203103520075	PUROHIT LALIT BHAGVATILAL	Mechanical Engineering
27	202203103520098	Bhatia Brijesh Atulkumar	Mechanical Engineering
28	202203103520119	Khush Wadia	Mechanical Engineering
29	202203103520138	PATEL BRIJESH PRAKASHBHAI	Mechanical Engineering
30	202203103520143	Mihir Modi	Mechanical Engineering
31	202203103510459	Harsh Chhatraliya	Mechanical Engineering

Introduction:

The Department of Mechanical, Automobile, and Mechatronics Engineering organized a two-day workshop on Welding Engineering and NDT Practices for B. Tech Mechanical Engineering students. The workshop was designed to provide participants with an in-depth understanding of welding engineering principles and techniques, as well as an understanding of non-destructive testing methods that are necessary for ensuring the quality and integrity of welds.

Objective and Significance:

This workshop aimed to:

- Provide participants with a solid understanding of welding processes and metallurgy.
- Introduce participants to various Non-Destructive Testing methods, including visual inspection, ultrasonic testing, radiography, and magnetic particle testing, enabling them to assess weld quality effectively.
- Offer participants hands-on experience through practical demonstrations and exercises, allowing them to apply welding techniques and NDT methods under the guidance of experienced instructors.
- Provide a platform for networking and knowledge sharing among participants, industry experts, and academician, fostering collaboration and exchange of best practices in welding engineering and NDT.

The workshop strives to boost the proficiency and skill set of individuals engaged in welding engineering and non-destructive testing practices.

Key Highlights:

- Students acquired knowledge of welding engineering concepts and techniques.
- They developed familiarity with diverse welding procedures and their practical uses.
- They got proficiency in utilizing NDT techniques for evaluating weld quality.
- Also, got capable to accurately interpret NDT outcomes and prepare comprehensive reports.
- And, got opportunities to connect with industry specialists and fellow attendees.

Summary of Discussions:

The two-day workshop on Welding Engineering and NDT Practices fostered insightful discussions and knowledge exchange among participants, industry experts, and academician. Key topics covered during the workshop included welding engineering principles, various

welding processes, Non-Destructive Testing (NDT) methods, and their significance in ensuring weld quality and integrity.

Overall Success and Impact:

The workshop also provided valuable insights, practical skills, and networking opportunities for participants to enhance their proficiency in welding engineering and NDT practices. The discussions underscored the importance of continuous learning and collaboration in ensuring the quality, safety, and competitiveness of industries reliant on welded components.

Pictures:

Session 1 on NDT by Harshit Desai

Hands-on session on NDT

Session 2 on welding processes by Meet Patel

Session 3 on welding metallurgy by Prof. Keyur Tandel

Hands-on session on welding practices

Valedictory session

Conclusion:

The two-day workshop on Welding Engineering and NDT Practices served as a comprehensive platform for participants to deepen their understanding of welding processes, metallurgy, and Non-Destructive Testing methodologies. The workshop fostered an environment conducive to interactive learning, where participants engaged in discussions, practical demonstrations, and hands-on exercises.

Report Prepared by: Palak H. Desai **Signature of Head of Department**

Date: 27th March 2024