



**Sandip Foundation's**  
**Sandip Institute of Engineering and Management,**  
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**Department of Mechanical Engineering**

**A.Y. 2023-24 SEM-II**

**SE & TE Industrial Visit Report at**

**VSP TESTING & CALIBRATION LABORATORY**

1. **Event Title-**SE & TE Industrial Visit Report at VSP Testing & Calibration Laboratory
2. **Event Date:** 19 April 2024
3. **Event Conduction Duration:** 11 Am To 3:00 Pm (4 Hours)
4. **Event Venue:** H-112 / 9, Shree Ashtavinayak Industrial Premises Co-Op.Society, MIDC Ambad, Nashik, Maharashtra 422010
5. **Event Resource Person /Guest Details:** -Mr. S.V.PATIL Proprieter & Quality Manager
6. **Name of Event Coordinator:** Prof. S. J. Chede
7. **Expected Audience:** Second and Third year Mechanical Engineering Students
8. **Number of Participants:** 31
9. **Company Profile**

**VSP Testing & Calibration Laboratory** is a leading Metallurgical Testing Laboratory in Chemical & Mechanical Testing in Nashik Region. The Laboratory is established in 2008. It provides all Metallurgical services under one roof. Chemical and Mechanical testing services is accredited by NABL, department of Science & Technology, Government of India, New Delhi as per ISO/IEC 17025.2017 via their Certificate No.TC- 6205 The Laboratory is run by qualified and well experienced professionals.

The proprietor & Quality Manager **Mr. S.V.PATIL**, B Sc DBM ,MMS ,DME, Lead Auditor & Lead Consultant Qualified for Implementation of Following International System Standards Lead Auditor ISO-9001-Quality Management System Lead Auditor,ISO 14001-Environmental Management System Lead Auditor-,OHSAS 45001-Occupational Health & Safety Management System Lead Auditor – HACCP & ISO 22000-Hazardous Analysis Critical Control Point –Food Safety

Management System Internal Auditor for NABL- ISO / IEC 17025:2017 Auditor For- Global GAP(Good Agricultural Practices) & Organic Farming Total Experience - 28 Years in different organizations.

## 10. Event Objectives & Outcomes:

### Event Objective

#### 1. Material Classification and Chemical Testing:

Objective: Exposure to **Chemical Testing And Its Analysis of Metals**

VSP Testing Lab is well equipped with Hitachi High Tech Analytical Foundry Master Expert with Optical Emission Spectrometer (OES) from Germany which is giving fast and accurate results for analysis of Ferrous (Fe) and Non-Ferrous base (Cu, Ni, Al) with using certified reference materials.

#### **Ferrous Metals**

- ◆ Carbon Steel ◆ Low Alloy Steel ◆ Stainless Steel ◆ Free Cutting Steel ◆ Tool Steel ◆ Cast Iron Steel
- ◆ Unknown Alloy / Material Identification

#### **Non Ferrous Metal**

- ◆ Nickel Alloys (Monel, Hastelloy, Inconel & Pure Nickel)
- ◆ Copper Alloy (Brass, AL-Bronze, P-Bronze, PB-Bronze, CU/NI Alloys, Gun Metal & Pure Copper)
- ◆ Aluminum & Aluminum Alloys ◆ Unknown Alloy / Material Identification

Outcome: Enhanced understanding of practical applications in the field of mechanical engineering.

#### 2. Various Destructive Testing:

Objective: Mechanical Laboratory Testing

- ◆Tensile Test- Ultimate Tensile Strength - Yield Strength - (0.2% & 1% Proof Stress) – Elongation - Reduction Area
- ◆ Flattening Test ◆ Flaring Test ◆ Fracture Test on Fillet Weld ◆ Concrete Fracture Test ◆ Bend Test ◆ Reband Test ◆ Reverse Bend Test ◆ Proof Load Test on Fasteners ◆ Compression Test on Spring ◆



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Load Test ♦ Macro & Weld Penetration Test ♦ Welder Qualfication as Per Asme SEC.IX ♦ Preparation of WPS/PQR ♦ IMPACT test as per IS & ASTM ♦ Hardness Test ( Rockwell, Superficial, Brinell, Vickers)

Outcome: Understanding of Mechanical Testing, applicable standards, Specimen Preparation , conducting tests and analysis based on the results.

### **3. Non Destructive Testing:**

Objective: Ultrasonic Testing, Weld Testing, Dye Penetrant Testing, X Ray(RT), Corrosion Testing, ..

Outcome: Exposure with respect to various Non Destructive tests conducted on components and materials. Detailed procedure to conduct the tests was discussed and sample testing done for the students, Interpretation of the results was an Important insight given to the students.

### **11. Purpose of visit**

The purpose of the industrial visit to VSP Testing & Calibration Laboratory was to make students aware about the measurements and testing on various materials used in Mechanical Engineering Industries. Any material will find its application only after understanding the metallographic analysis and that the properties should be measurable, only then we can explore the potential of materials.

### **10. Photos**



**Mr. S.V. Patil and Team members with students at Salt Spray Test setup**



**Classification of materials with Periodic Table**



**Students observe Salt spray test**



**Mechanical Testing of metals on UTM explained**



**Group Photo at VSP Testing & Calibration Laboratory**

**12. Attendance**

Sandip Foundation's Sandip Institute of Engineering & Management Department of Mechanical Engineering		
A.Y.2023-24		Date: 19.04.24
Class: TE		
Industrial Visit to VSP Labs MIDC Ambad, Nashik 422012		
Roll No.	Name of Student	Signature
1 ✓	AHIR JAGAN MITTHUYADAV	
2 ✓	BADAKH SOHAM HARIBHAU	
3	BHADANE DEVEN SUNIL	
4	BIDGAR YUVRAJ BABASAHEB	
5 ✓	DESHMUKH VAIBHAV SANDIP	
6 ✓	GAYKE OM UMESH	
7	GONDALE SHUBHAM BHAGWAN	
8	JADHAV MANISHA ARUN	
9 ✓	KAKLIJ SHUBHAM DHANRAJ	
10	KATE YASH SANJAY	
11 ✓	KURHADE VAIBHAV PRADIP	
12	LONARE DHIRAJ SHANTARAM	
13 ✓	MAHALE NAKUL ATMARAM	
14 ✓	MAHALE VIRAJ GANESH	
15 ✓	MALI RITESH UMESH	
16	MORE BHAVESH RAVINDRA	
17	PAGARE RUSHIKESH SANJAY	
18	PATIL ANKUSH VISHNU	
19	PAWAR AADITYA SANJAY	
20 ✓	PHATANGARE SAHIL RAVINDRA	
21 ✓	PODDAR AKSHAY VINODPRASAD	
22 ✓	SHEET AAKASH SUNIL	
23	SHELKE SACHIN DNYANESHWAR	
24 ✓	SHINDE GAURAV LAXMAN	
25	SHIRKE SMITA SANJAY	
26	SONAWANE ANUSH RAVINDRA	
27 ✓	THAKARE ANIRUDDHA ASHOK	
28 ✓	THAKARE HEMANT NAMDEO	
29	THAKUR BHAVESH DNYANESHWAR	
30	VHANDE DNYANESHWAR NAMDEV	

16 + 3 = 19.

19  
12  
31

s.s.chode

Sandip Foundation's Sandip Institute of Engineering & Management		
Department of Mechanical Engineering		
A.Y.2023-24	Class: TE	Date:
Industrial Visit to VSP Labs MIDC Ambad, Nashik 422012		
Roll No.	Name of Student	Signature
31 ✓	WANKHEDE SAHIL MAHENDRA	<i>Sahil</i>
32 ✓	WAVARE DARSHAN SANJAY	<i>Darshan</i>
33	NITIN DEVIDAS CHOHE	
34 ✓	HADAL AKASH BALKRISHNA	<i>Ashalya</i>
35	DESHMUKH SAGAR GAJANAN	
36	MAYUR SUNIL PATIL	

Sandip Foundation's Sandip Institute of Engineering & Management		
Department of Mechanical Engineering		
A.Y.2023-24	Class: SE	Date: 19.04.24
Industrial Visit to VSP Labs MIDC Ambad, Nashik 422012		
Roll No.	Name of Student	Signature
1	BACHHAV LAVANYA HEMANT	
2	BADADE NAYAN BHALCHANDRA	
3	BODKE PRADNYA BAPU	
4	SHIRSATH ROSHNI DIGAMBAR	
5	SOMVANSHI VAISHNAVI DEEPAK	
6	AROTE SAGAR DNYANESHWAR	<i>Sagar</i>
7	BANKAR CHETAN SURYAKANT	<i>Chetan</i>
8	BARHATE ATUL ANIL	
9 ✓	BIDAVE VRUSHAL SOMANTH	<i>Vrushal</i>
10	DESHMUKH RUSHIKESH LAXMANRAO	
11	KAPADNIS SUJIT MILIND	
12	KASHTI RUSHIKESH DAYAL	
13	KOKATE NILESH SHIVNATH	<i>Nilesh</i>
14	MAHAJAN TANISH VIVEK	
15	NIKAM SHIVAM DHANRAJ	<i>Shivam</i>
16	PANGAVHANE VAIBHAV LAHANU	
17	PATIL ROHAN SANJAY	
18	PAWADE SIDDHESH POPAT	
19	SONAWANE AMOL KRISHNA	
20 ✓	SURYAWANSHI ROHAN SANTOSH	<i>Rohan</i>
21	WAGH SWAMI SAHEBRAO	
22	ASHISH AJAY WAKCHAURE	
23 ✓	Bhushan Bapu Lonari	<i>Bhushan</i>
24 ✓	HIMANSHU REVEN NIKAM	<i>Himanshu</i>
25	MANTHAN NITIN WARHADE	
26 ✓	Mayur Somnath Shelke	<i>Mayur</i>
27	OM DEVIDAS PATIL	<i>Om</i>
28	PRASHANT PANDHARINATH DESHMUKH	
29 ✓	Prathamesh Sunil Borade	<i>Prathamesh</i>
30	RAHUL MADHUKAR RAKH	
31	SHRUTI LALIT BENDALE	
32	Siddharth Raju Mokal	
33	TUKARAM VALU BENDKOLI	
34	Yuvraj Manohar Jadhav	

*S. J. Chede* 12

*S. Dube*  
Dr. A. S. Dube

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*D. P. Patil*  
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