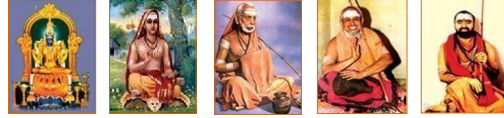


With the blessings of Their Holinesses



**SRI CHANDRASEKHARENDRA SARASWATHI
VISWA MAHAVIDYALAYA
SCSVMV**

(Deemed to be University U/S 3 of UGC Act 1956)
Accredited with “A” Grade by NAAC

**DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION ENGINEERING**



**INDUSTRIAL VISIT REPORT
Stahl India Private Limited**

Visit

On

13.03.2024



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EIE Department Industrial Visit Report –Stahl India Private Limited

Sub: Detailed Report – Industrial Visit

On March 13, 2024, students from Mechatronics Engineering, and Mathematics of Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya (SCSVMV) embarked on an industrial visit to Stahl India Pvt located in Neervallur. The visit provided students with valuable insights into the operations and processes involved in Chemical Manufacturing Industry. Mr. Viswanathan, a representative from Stahl India Pvt, commenced the visit with an introductory speech, elaborating on the plant's operations.

Introduction

Stahl is world leader in specialty coating and treatment for flexibility substrates. The products manufactured add functionality, durability and comfort to many different materials we use in our everyday life. The company focuses on continuous improving the different environmental footprint. The Senior Manager of production Mr. K. Viswanathan gave the briefings about the company and shows the plant.

Functions and Operations

1.Storage And Maintenance

There are a very wide variety of chemicals (more than 400 different types) used in the factory. The infrastructure is systematically segregated in categories such as finished goods storage and Raw materials storage.

2. Safety Measures and Precautions

The chemicals are securely preserved yet highly ventilated. And for areas for which highly toxic chemicals are present the workers use specialized protective gear which covers their whole body from head to toe.

3. Machinery

The machines used in the plant are mainly

i. AIR COMPRESSORS

The air compressors are used to supply the compressed air to all the pneumatically operated control valves.

ii. CHILLERS

Chillers are categorized into two- Cooling water and Chilled water. The difference was that cooling water was maintained in the Temperature of 15 to 25°C whereas chilled water is



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maintained at $<10^{\circ}\text{C}$. Chillers are used to utilize the power of outside air and water to maintain the target temperature at constant level; therefore it can be used to heat or cool. It is used to control the exothermic reaction produced and cool the system at the surface.

iii. COOLING TOWERS

They explained that cooling towers are heat rejection devices used to transfer waste heat to atmosphere through the cooling of water stream. Cooling towers are mostly employed for cooling the circulating water used in the power plant.

iv. BOILERS

Boilers are used to produce steam or hot water for space and process heating and for the generation of mechanical power and electricity. Boilers are sub categories into two types. **Furnace Boilers:** These are type of boilers which use furnace oil which is a petroleum refinery. They are cost efficient. **Briquette Boilers:** These are biomass heating systems that use compressed blocks of biomass call briquettes, as fuel. They offer renewable energy lower emissions cost effectiveness waste reduction and fuel versatility.

4. CONTROL SYSTEMS (SEMI AUTOMATIC) AND MONITORING:

All the controls of the valve shafts are connected to various computer systems using Programmable Logic Controller (PLC's) consisting of glass line reactors. PLCs used here are "YOKOGAWA" Rack type and "CENTUM 3000". The operators are assigned to take readings of temperature, weight, current and monitor the smooth running of the plant. The staff manages HR Production, maintenance and quality control and R&D Logistics.

TECHNOLOGICAL INSIGHTS

Students were given the opportunity to explore the process and maintenance for colors of leather and understand various applications regarding air compressors, boilers, and PLCs.

.CONCLUSION:

The industrial visit to Stahl India Pvt, was an enriching experience for the students of SCSVMV. It provided them with firsthand knowledge of chemical manufacturing processes and exposed them to industry-leading sustainability initiatives and technological advancements. The visit would not have been possible without the support and permission granted by the SCSVMV management. Such visits play a crucial role in bridging the gap between theoretical knowledge and practical application, thereby enhancing students' understanding of industrial operations.



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INDUSTRIAL VISIT STAHL INDIA PRIVATE LIMITED PHOTO





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We extend our sincere gratitude to Stahl India Private Limited for hosting us and providing valuable insights into their operations. Special thanks to Mr. K.Viswanathan for his informative introductory speech and guidance throughout the visit. Additionally, we appreciate the support of the SCSVMV management in facilitating this educational opportunity for the students.

Thanking You

Yours faithfully

(Dr. T. Lakshmbai)
HOD/EIE



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INDUSTRIAL VISIT STAHL INDIA PRIVATE Ltd

Staff List

S.No	Name of Faculty	Designation
1	Dr.Janani.R	Assistant Professor
2	Dr.K.Saraswathi	Assistant Professor
3	Dr.K.Sugapriya	Assistant Professor
4	Dr.N.C.A.Boovarahan	Assistant Professor
5	Dr. Radhakrishnan V K	Assistant Professor
6	Mrs.V.Komala	Lab Instructor

Students List

S.No	Register Number	Name of the Student
1	11229H001	N.TIRUMALA HARDIK SRIVATSA
2	11229H002	SUDHAN.G
3	11229H003	KOUSHIK BHARADWAJ VISHNUBHOTLA
4	11219H001	P ANANTHA PADMANABBAN
5	11219H002	CHITTALURI SAI PHANICHANDRA
6	11219H003	DHULLIPALLA DATTA SAI
7	11219H004	SRI SAI SHRAVANI VOLETI
8	11209H001	RAGHUL .V
9	112262001	G. HESODH
10	112262002	B. JANANI
11	112162001	J. AMMU
12	112162004	T. NIVETHA
13	112162005	B. PARTHIBAN
14	112344001	S. JANANI
15	112344003	M. MADHUMITHA
16	112344004	B.S. SHIYAM
17	112344005	R. VIGNESH