

Industrial Visit Report: Sawara Kuddu Hydroelectric Project, Hatkoti, Shimla, H.P. 4th May 2024



Date of Visit: May 4th, 2024

Location: Sawara Kuddu Hydroelectric Project, Hatkoti, Shimla district, Himachal Pradesh

Organizing Institution: Department of Civil Engineering, Jaypee University of Information Technology, Wagnaghat

Batch: B-Tech CE 4th, 6th and 8th Semester

Faculty Coordinator: Mr. Kaushal Kumar and Mr. Akash Bhardwaj (CED)

Purpose of Visit: The industrial visit to the Sawara Kuddu Hydroelectric Project was organized as part of the academic curriculum for students of [Department/Program Name] at Jaypee University of Information Technology. The primary objective of the visit was to provide students with practical exposure to the functioning and operations of a hydroelectric dam and powerhouse. Additionally, the visit aimed to enhance students' understanding of renewable energy sources and their role in sustainable development.

Overview: The Sawara Kuddu Hydroelectric Project is located in the picturesque region of Hatkoti, Shimla district, Himachal Pradesh. It harnesses the water resources of the Pabbar River to generate electricity through hydropower. The project comprises a dam, a powerhouse, and associated infrastructure designed to efficiently convert the potential energy of water into electrical energy.

Activities and Observations:

1. **Guided Tour:** The visit commenced with a guided tour of the dam site, led by experienced personnel from the hydroelectric project. Students were provided with insights into the construction, design, and functioning of the dam, including its role in regulating water flow and ensuring efficient energy generation.

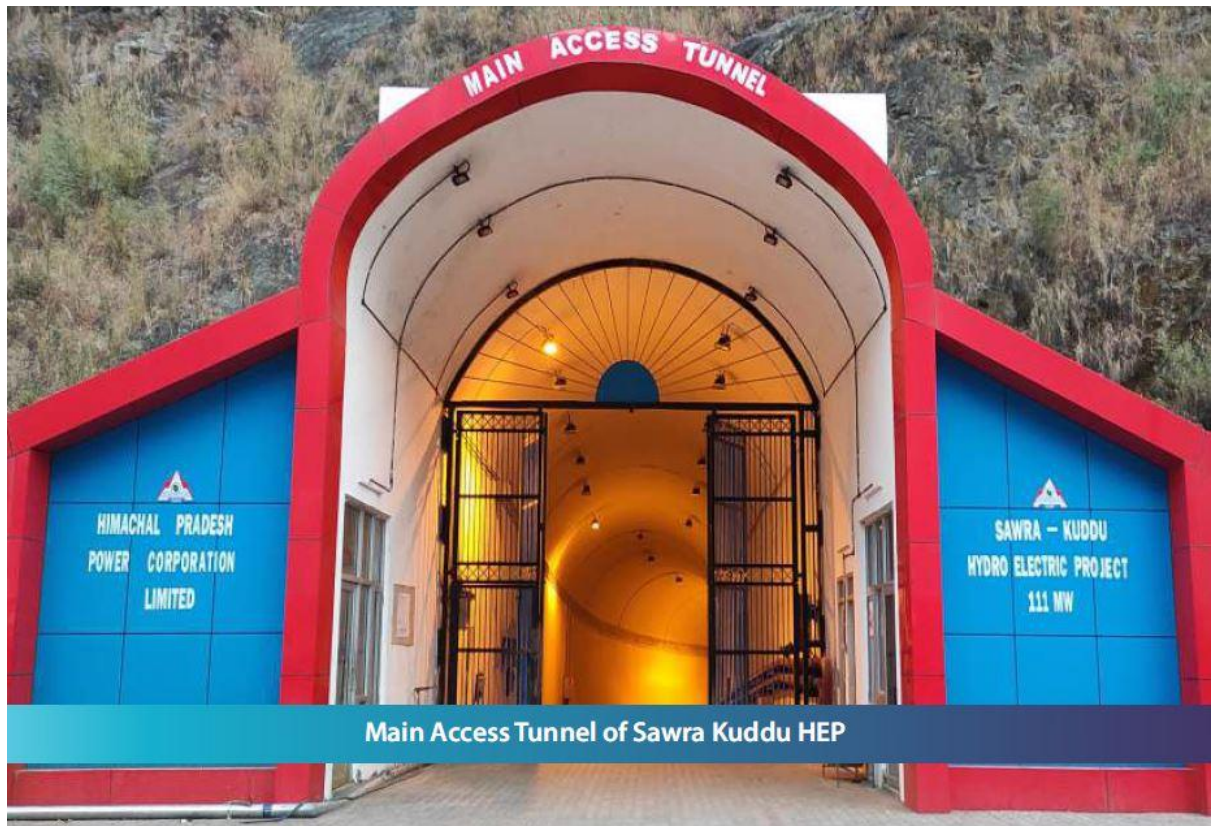


Akshay Bhardwaj, Assistant Engineer, HPPCL (JUIT Alumnus, Batch 2015-19, B.Tech, CE) explaining the working of Dam and control structures



2. **Powerhouse Visit:** Following the tour of the dam, students were escorted to the powerhouse, where electricity generation takes place. They had the opportunity to witness the various components of the powerhouse, including turbines, generators, and control systems. Interactive sessions were conducted to explain the process of

electricity generation from water flow and the role of different equipment in the conversion process.



3. **Environmental Impact:** A discussion was held on the environmental impact of hydroelectric projects, focusing on both positive aspects such as clean energy generation and challenges such as habitat disruption and sedimentation. Students gained an understanding of the importance of balancing energy needs with environmental conservation.
4. **Safety Measures:** Throughout the visit, emphasis was placed on safety measures and protocols implemented at the hydroelectric project. Students were briefed on safety procedures to be followed in industrial settings, including the importance of adherence to designated pathways and safety barriers.

Key Learnings:

- Understanding the principles of hydroelectric power generation.
- Appreciating the significance of renewable energy sources in addressing global energy needs.
- Recognizing the environmental and socio-economic implications of hydroelectric projects.
- Gaining insights into the technical and operational aspects of a hydroelectric plant.

Conclusion: The industrial visit to the Sawara Kuddu Hydroelectric Project provided students with a comprehensive understanding of hydroelectric power generation and its relevance in the context of sustainable development. The firsthand exposure to the operational aspects of a hydroelectric plant enhanced students' theoretical knowledge and prepared them for future endeavors in the field of renewable energy.

Acknowledgment: We extend our sincere gratitude to the management and staff of the Sawara Kuddu Hydroelectric Project for their hospitality and valuable insights shared during the visit. Special thanks to [Sh. Akshay Bhardwaj] for facilitating the tour and enriching the learning experience for our students.

Glimpses of the Visit:











List of Students of CE Department for Swara Kuddu Hydroelectric Plant visit on 04-05-2024

Sno.	Roll No	Name	Year	Contact No.
	527	Kaushal Kumar	Faculty	8894172078
	585	Akash Bhardwaj	Faculty	9336657400
1	201629	Avishya Jaswal	4th	
2	201603	Karma Yoezer	4th	
3	201604	Phurpa Dorji	4th	
4	201605	Dechen Wangmo	4th	
5	201619	Jatin Gupta	4th	
6	201628	Ankit Ravi	4th	
7	201602	Piyush Chauhan	4th	
8	201612	Jitendra	4th	
9	201614	Shashwat Nsharma	4th	
10	201620	Saurabh Kharyal	4th	
11	201625	Arushi	4th	
12	201626	Prateek Sharma	4th	
13	201627	Pranjal Srivastava	4th	
14	201642	Mohit Thakur	4th	
15	201632	Utkarsh Singh	4th	
16	201615	Neeyati Gupta	4th	
17	211601	Nishant Beniwal	3rd	
18	211604	Sarthak Chauhan	3rd	
19	211608	Ritik Baliyan	3rd	
20	211609	Mayank Thakur	3rd	
21	211613	Anirudh	3rd	
22	211614	Karan Negi	3rd	
23	211616	Piyush Gautam	3rd	
24	211617	Ayush Gupta	3rd	
25	211619	Ashish Kumar	3rd	
26	211620	Rajat Sheetal	3rd	
27	211621	Aryan Thakur	3rd	
28	211622	Ayush Goyal	3rd	
29	221020001	Aryaman Chander Katoch	2nd	
30	221020003	Manav Kaplan	2nd	
31	221020005	Hridyesh Sharma	2nd	
32	221020006	Harsh Kumar	2nd	
33	221021002	Shaurya Singh	2nd	
34	221031016	Akhil Sharma	2nd	

Kaushal Kumar
Asst. Professor, CED



Report of Industrial Visit organized by ECE department of JUIT to 'SCL Mohali' on 26 April 2024

The department of Electronics & Communication Engineering (ECE), JUIT Waknaghat organized an industrial visit to Semiconductors Limited (SCL) Laboratory situated at Mohali (Punjab) for UG/PG/Phd students of ECE discipline on 26-04-2024. This activity has been coordinated by Prof. Rajiv Kumar (HoD, ECE), and Dr. Pardeep Garg (Assistant Professor, ECE). 30 students studying in UG/PG/Phd programmes of ECE department got the opportunity for this industrial visit accompanied by the faculty members: Dr. Harsh Sohal (Associate Professor, ECE), Dr. Vikas Baghel (Assistant Professor, ECE), Dr. Nishant Jain (Assistant Professor, ECE), Dr. Alok Kumar (Assistant Professor, ECE), and Mr. Munish Sood (Assistant Professor, ECE). Also, Mr. Kamlesh Srivastava (Lab staff member of ECE department) became the part of this useful industrial visit.

The visit was started by the SCL officials with welcoming of the JUIT team and showcasing a presentation of SCL in their auditorium in which they discussed the whole functioning of SCL, the plant layout etc. Also, they told that SCL is an autonomous society under the Ministry of Electronics and Information Technology (MeitY) with more than 40 years of experience as a semiconductor Integrated Device Manufacturer (IDM). SCL currently operates 2 wafer fabrication lines – 8” CMOS at 180 nm node and 6” MEMS with a combined capacity of approximate 750 Wafer Starts per Month (WSPM). Over 200 of types of CMOS devices can be made by SCL's wafer fabrication facilities. SCL undertakes activities pertaining to design, fabrication, assembly & packaging, testing and quality assurance of silicon CMOS and MEMS devices for various applications. In addition, it also has a compound semiconductor research facility. SCL also houses design capabilities spanning across Analog, Logic, Power Management, Opto-Electronics, Data Converters, Sensors, Radiation Hardening and other devices. It also has a fully functioning ceramic line Testing, Assembly & Packaging unit, adhering to MIL standards, and includes capabilities such as multi-chip packaging, MEMS packaging and fine pitch bonding. SCL is India's only integrated device manufacturing facility. It makes products for ISRO, DRDO, BAL etc.

Then, SCL officials took JUIT team to the plant visit and showed the functioning of Dicing unit, Testing unit, and Fabrication unit for VLSI chips & MEMS devices. The JUIT team discussed the probable Internships, placement opportunity for their ECE students. This visit gave a wonderful exposure to JUIT team in the emerging area of Semiconductors/VLSI field. The JUIT team thanked the company officials, their HR Manager for the visit.

A few glimpses of the visit are as follows:



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The list of students who attended this industrial visit is as follows:

S. No.	Enrolment Number	Name of the Student	Degree	Stream
1	201006	Himanshi Sood	UG	ECE
2	201010	Rishita Kumari	UG	ECE
3	201012	Arsh Aryan Tiwari	UG	ECE
4	201017	Manas Jain	UG	ECE
5	211001	Navya Sharma	UG	ECE
6	211003	Utkarsh Sharma	UG	ECE
7	211005	Ayush Khachi	UG	ECE
8	211007	Ayush Gupta	UG	ECE
9	211010	Aneesh Tiku	UG	ECE
10	211011	Abhishek Kumar	UG	ECE
11	211061	Bhoomika Kandpal	UG	ECM
12	211067	Sukant	UG	ECM
13	211069	Adrita kar	UG	ECM
14	211070	Harshita	UG	ECM
15	211074	Arpan	UG	ECM
16	211079	Siddharth	UG	ECM
17	211080	Deepanshu	UG	ECM
18	221040001	Sambhav Thakur	UG	ECE
19	221040004	Rishabh Thakur	UG	ECE
20	221040005	Parth Gupta	UG	ECE
21	231042001	Prakhar Kulshrestha	UG	ECE
22	231040001	Aaryan Sharma	UG	ECE
23	235042001	Tanishk Thakur	PG	ECE
24	235042002	Naresh Rana	PG	ECE
25	235042003	Rishika Goel	PG	ECE
26	225042001	Shubham	PG	ECE
27	225042002	Amit Roy	PG	ECE
28	236001	Shalini Bhickta	PG	ECE
29	236002	Ritika Rattan	PG	ECE
30	216005	Shalini Sharma	PG	ECE

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Report of 'Industrial Visit to TVS Motors and Signum Electro Pvt. Ltd. ' organized by ECE and HSS department on 11 April 2024

The department of Electronics & Communication Engineering (ECE) and Humanities & Social Science (HSS) JUIT Waknaghat, organized an industrial visit to TVS Motors (situated at Nalagarh, District Solan, H.P.) and Signum Electro Pvt. Ltd. (situated at Baddi, District Solan, H.P.) for UG/PG/Phd students of ECE and the UG students of BBA on 11-04-2024. This activity has been coordinated by Prof. Rajiv Kumar (HoD, ECE department), Dr. Amit Srivastava (HoD, HSS department), and Dr. Pardeep Garg (Assistant Professor, ECE department). 22 students corresponding to UG/PG/Phd programmes of ECE department and 4 students from BBA of HSS department got the opportunity for this industrial visit accompanied by the faculty members: Dr. Emjee Puthooran (Associate Professor, ECE), Dr. Salman Raju Talluri (Assistant Professor, ECE department), Mr. Munish Sood (Assistant Professor, ECE department), and Ms. Triambca Gautam (Assistant Professor, HSS department). Also, Mr. Dharendra Kumar Singh and Mr. Kamlesh Shrivastava (Lab staff members of ECE department) became the part of this useful industrial visit.

The visit was started by visiting 'TVS Motors'. This is the 3rd plant of TVS Motors company at Nalagarh which manufactures the entire automobile (Motorbike, Scooty, Moped, Auto-Rickshaw etc.) variants. The plant officials started the visit by giving a demonstration of the company followed by a tour to whole plant. During the tour to the various units of the plant, the officials very well explained the working of each unit. The faculty members and the students discussed various opportunities in terms of Internships/placement etc. related to their domain. This visit gave a good exposure to all the JUIT participants in terms of Automation and business perspectives. The company offered lunch to all the JUIT team.

After giving thanks to the TVS Motor company officials, JUIT team started for the next visit to company 'Signum Electro Pvt. Ltd.' situated at Baddi. This company is a WorldClass PCB manufacturer. The company manufactures PCB for various customers such as Automobile Industry, Philips, Water Purifier Dealer (Kent), and many others. The company officials took the JUIT team to show all the steps in PCB manufacturing starting from Raw Material handing stage to Final Quality Assurance stage leading to PCB ready for the customer. This visit gave a wonderful exposure to JUIT team in the emerging area of Semiconductors. The JUIT team thanked the company officials after the visit.

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A few glimpses of the visit are as follows:



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