



**JAYPEE UNIVERSITY OF INFORMATION
TECHNOLOGY**
WAKNAGHAT, P.O. – WAKNAGHAT,
TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.)
PIN – 173234 (INDIA) Phone Number- +91-1792-257999
(Established by H.P. State Legislature vide Act No. 14 of 2002)



Industrial Visit Report: Sunni Dam Hydroelectric Project, Shimla, H.P.



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Date of Visit: May 8th, 2025

Location: Sunni Dam Hydroelectric Project, Sunni, Shimla district, Himachal Pradesh

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

Batch: B-Tech CE (All Semesters) & M-Tech CE

Faculty Coordinators: Dr. Kaushal Kumar and Dr. Amardeep (CED)

Purpose of Visit: The industrial visit to the Sunni Dam Hydroelectric Project, operated by SJVN Ltd., was organized as part of the academic curriculum for students of the Civil Engineering Department at Jaypee University of Information Technology. The primary objective was to provide students with practical exposure to the advanced construction methodologies, design principles, and civil engineering applications involved in a large-scale hydroelectric project. The visit aimed to bridge theoretical knowledge with on-ground practices, focusing on renewable energy infrastructure and sustainable development.

Overview: The Sunni Dam Hydroelectric Project is a significant power generation facility located in Sunni, Shimla district, Himachal Pradesh. Developed and operated by SJVN Limited, it harnesses the hydrologic potential of the Satluj River. The project

features a concrete gravity dam, a powerhouse with modern turbines and generators, and extensive associated infrastructure, showcasing cutting-edge engineering in hydropower generation.

Activities and Observations:

1. **Project Briefing and Safety Induction:** The visit commenced with a comprehensive safety induction session conducted by SJVN officials, emphasizing the critical importance of safety protocols in a high-risk construction and operational environment. This was followed by an overview presentation on the project's specifications, capacity, and its role in the regional power grid.



2. **Dam Site Inspection:** Students were taken on a guided tour of the dam site. SJVN engineers explained the design and construction of the concrete gravity dam, including the considerations for withstanding immense hydraulic pressure, foundation treatment, and the intricacies of spillway design for flood management. The scale of the construction and the quality control measures were key highlights.



3. **Powerhouse and Turbine Hall:** The group then proceeded to the powerhouse section which was under construction.





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4. **Discussion on Construction Challenges:** A dedicated interactive session was held where project managers discussed the significant civil engineering challenges encountered during the project's execution, such as difficult terrain, tunneling, and ensuring structural integrity. This provided invaluable insights into real-world problem-solving in civil engineering projects.

Key Learnings:

- Gained firsthand knowledge of the design and construction techniques of a large concrete gravity dam.
- Understood the complete workflow of hydroelectric power generation, from water intake to grid synchronization.
- Appreciated the critical role of interdisciplinary coordination between civil, mechanical, and electrical engineering in a mega project.
- Recognized the importance of rigorous safety management and quality assurance on an industrial scale.
- Observed the application of theoretical concepts of fluid mechanics, structural analysis, and geotechnical engineering in a live project.

Conclusion: The industrial visit to the Sunni Dam Hydroelectric Project was an immensely educational and enriching experience for both students and faculty. It successfully provided a deep, practical understanding of the complexities involved in developing modern hydropower infrastructure. The exposure to SJVN's professional project management and engineering excellence has greatly inspired the students and augmented their academic learning.

Acknowledgment: We extend our profound gratitude to the management and staff of SJVN Limited, especially the team at the Sunni Dam Hydroelectric Project, for their gracious hospitality, meticulous arrangements, and the wealth of knowledge they shared. Special thanks to Shree Dinesh Ji for facilitating the tour and ensuring an insightful learning experience for our students.



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Glimpses of the Visit:





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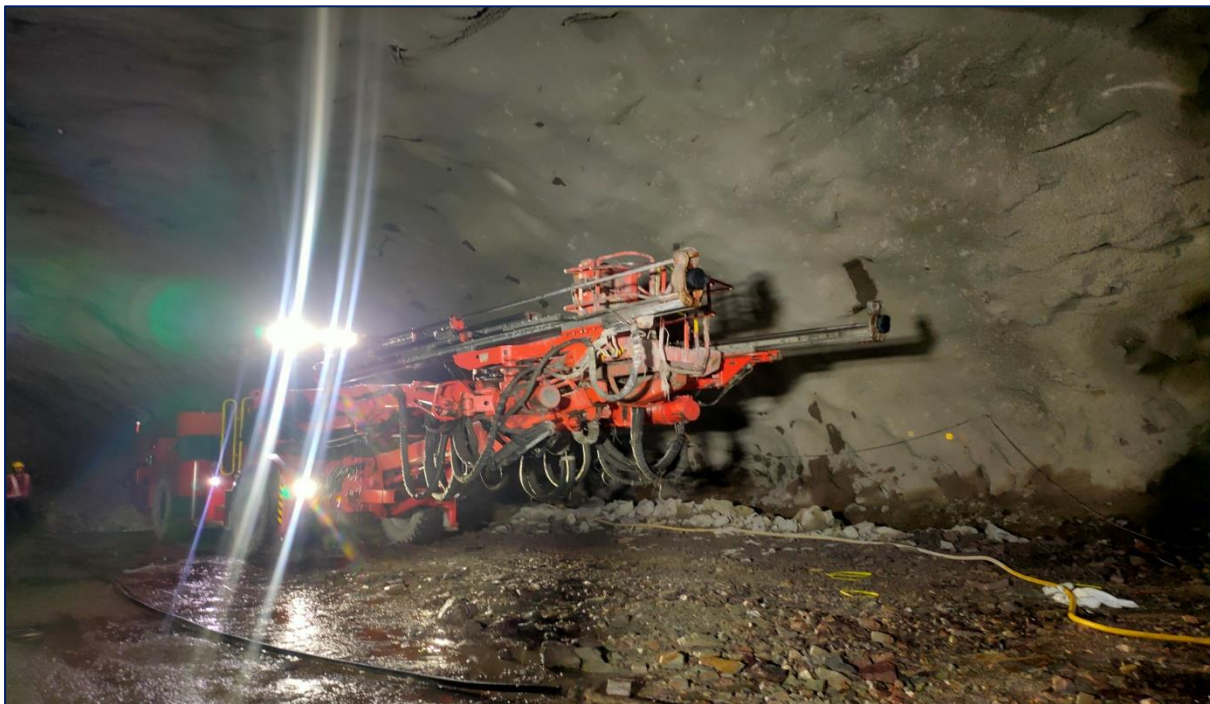
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List of Students of CE Department for Sunni Dam Site, Shimla

Sno.	Name	Roll No	Year
1	Devang Bonsera	241020002	1st
2	prajanya sen	241020004	1st
3	Daksh Bharara	241020009	1st
4	Prajval Thakur	241021001	1st
5	Jatin Singh	241020003	1st
6	Manik Tyagi	241021002	1st
7	Abhinav Chandel	231020001	2nd
8	PUNEET KAPOOR	231020006	2nd
9	Anmol Rana	231020007	2nd
10	Shaurya Singh	221021002	3rd
11	Hridyesh Sharma	221020005	3rd
15	Lalkapthang Lhouvum	221021001	3rd
13	Aryan Verma	221020002	3rd
114	Akhil Sharma	221031016	3rd
15	AARYAMAN KATOCH	221020001	3rd
16	Manav kaplan	221020003	3rd
17	Aryan Thakur	211621	4th
18	Karan Negi	211614	4th
19	Piyush Gautam	211616	4th
20	Rajat Sheetal	211620	4th
21	Sarthak Chauhan	211604	4th
22	Aditya Sharma	245024001	M.tech
23	Sushant Sharma	245022001	M.tech
24	Piyush Chauhan	245024003	M.tech
25	Ashutosh Vohra	245023001	M.tech
26	ANSHUL SHARMA	245024002	M.tech