

OUR VISION

This FDP provides a comprehensive view of sustainability engineering by integrating knowledge from civil engineering, environmental sciences, water conservation and renewable energy guided by UN-SDGs. The program aims to empower faculty, scholars and industry professionals with interdisciplinary knowledge and practical exposure.

Eligibility:

Faculties, Scientist, Research Scholars, PG Students, NGO Personnel and Industry Professionals

Assignments & Quizzes:

Certificate upon 80% attendance & Full Participation.

SIX DAYS FDP ON SUSTAINABILITY ENGINEERING CONCEPTS AND APPROACHES

July 14-19 2025



VENUE

Department of Civil Engineering
Central University of Jharkhand
Cheri Manatu, Ranchi-835222, Jharkhand

Join us to explore the engineering solutions to sustainability challenges and build a greener future... *(Limited Seats: 30)*

Register at: <https://atalacademy.aicte.gov.in/login>

NOC and I-card required to upload

Accommodation to few external participants and partial TA provided

Experts from premier academic institutions and accomplished leaders from industries

Key Topics:

- The Pillars of Sustainability
- Sustainable Development and Circular Economy
- Sustainable Energy Technologies and Green Buildings
- Sustainable Agriculture & Transportation
- Sustainability Challenges in the Built Environment
- Integrated Water Resources Management for River Basin
- Sustainability Engineering and Life Cycle Analysis
- Recent Approaches towards Sustainable Transportation
- From Scarcity to Sustainability-The Evolution of Water Policies in India
- Rising Role of Cybersecurity in ESG using GenAI and Red Teaming.
- Hands on Training
- MCQs and Reflection Journal

CHIEF PATRON

Prof. Kshiti Bhusan Das

Vice-Chancellor

Central University of Jharkhand, Ranchi, India

Coordinator: Prof. Ajai Singh, Department of Civil Engineering, Mob.: 90314 50087

Co-Coordinator: Dr. Shikha Chourasiya, Assistant Professor, Department of Civil Engineering.
email: shikha.chourasiya@cuja.ac.in

SIX Days FDP
on
Sustainability Engineering Concepts and
Approaches
(14th-19th July, 2025)

Background

Sustainability Engineering covers the knowledge, skills, and values necessary for environmental conservation, water conservation, social equity, and economic sustainability. This also addresses the United Nation's Sustainable Development Goals (UN-SDGs). The course will ensure customized approach, focusing on adding values to sustainability experts capable of integrating interdisciplinary knowledge from engineering, sustainability, environmental science, policy, design, citizen science, health, safety engineering and more.

The 6 days FDP will provide a holistic blend of engineering, environmental science, and social aspects, equipping participants to address sustainability challenges with a well-rounded perspective. Emphasis will also be made on practical applications through industry visit and developing real-world problem-solving skills. The participants will learn from renowned professors and industry experts with a deep understanding

of sustainability principles and cutting-edge technologies. Sustainability Engineering is highly promising, given the increasing focus on climate change and sustainability. The areas of concern are renewable energy, sustainable product development, clean transportation, power generation, water resources management and green building construction. Taking into consideration the vast opportunities and challenges in Sustainability Engineering, the department is organizing a six-days online Faculty Development Programme on Sustainability Engineering Concepts and Approaches from 14th-19th July, 2025.

Objectives

- To understand the basic concepts of sustainability.
- To introduce various areas of sustainability engineering.
- To impart practical knowledge about sustainability and implications of sustainable measures in various fields of Engineering.

Who Should Attend?

Faculties, Scientists, and Research Scholars, Post-Graduation Students of the Universities, NGOs and industry personnel are eligible to

register and are requested to take advantage of the online training course.

Learning outcomes

After successful completion of this Faculty Development Program, the candidates will have a better understanding of the areas of concern in the field of sustainability engineering such as renewable energy, sustainable product development, clean transportation, power generation, water resources management and green building construction.

Compulsory assignments: Tutorials/Quizzes

Prerequisite: The program requires basic knowledge of engineering and sciences.

Instructions

- ✓ Daily lectures and hands-on practice will be conducted along with discussions and assignments.
- ✓ Participants who attend more than 75% time of the session will be marked present and attendance will be considered for the session.
- ✓ Certificates will be issued to those participants who will complete all online sessions, quizzes, assignments and 75% attendance.

About The Department

The Department of Civil Engineering came into existence in 2022 under the School of Engineering and Technology after the merger of Department of Water Engineering and Management (2010) and Department of Transport Science and Technology (2019). The department is offering a 5-year integrated B.Tech.-M.Tech. in Civil Engineering with specialisation in Water Resources Engineering and Transportation Engineering and Ph.D. program in Civil Engineering.

CHIEF PATRON

Prof. Kshiti Bhusan Das

Vice-Chancellor

Central University of Jharkhand, Ranchi, India

PATRON

Shri K. K. Rao

Registrar

Central University of Jharkhand, Ranchi, India

CONVENOR

Prof. Ajai Singh

Dean, School of Engineering and Technology

Central University of Jharkhand, Ranchi

ADVISORY COMMITTEE

Dr. Manoj Kumar, Professor, DEVS

Dr. S. C. Yadav, Prof. & Head, DCST

Dr. G. P. Singh, Assoc. Professor, DNST

Dr. Manoj Kumar, Assoc. Professor, DLS

Dr. Suchit Kumar Patel, Asstt. Professor, DCE

Dr. S. K. Shukla, Asstt. Professor, DEVS

Dr. B. M. Jha, Asstt. Professor, DEE

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SIX Days FDP

on

Sustainability Engineering Concepts and Approaches

14th-19th July, 2025



Sponsored by

AICTE Training and Learning (ATAL)
Academy Programmes



Organized by

Department of Civil Engineering
<https://cuja.ac.in/DOCivil/DOCivil.php>

Central University of Jharkhand (CUJ)
Cheri Manatu, Ranchi-835222, Jharkhand
SIX Days FDP

on
**Sustainability Engineering Concepts and
Approaches**
14th - 19th July, 2025

Registration link

The link is available on the AICTE Training and Learning (ATAL) Academy Programmes

<https://www.aicte-india.org/atal>

Number of Candidates: Maximum of 25-30 participants may be allowed to attend FDP on a first come first serve basis as per the selection rules of AICTE.

About AICTE Training and Learning (ATAL) Academy

AICTE is committed to the development of quality technical education in the country by initiating various schemes launched by Govt. of India, MHRD

Council understands that there is a need of the day to train the young generation in the skill sector and having faculty & technicians be trained in their respective disciplines. It was felt that Training with the latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them employable to acquire global competencies. It also transforms them to harmonize with society and most importantly to make them good citizens of the country. Accordingly, it was decided to the opening of AICTE Training And- Learning - (ATAL) Academies. As a part of its activities, AICTE Training and Learning (ATAL) Academy will conduct its programme from 14th- 19thJuly, 2025 at Central University of Jharkhand, Ranchi.

Selection Procedure

As per the AICTE guidelines.



Central University of Jharkhand, Ranchi-835222

Department of Civil Engineering

SIX Days FDP

on

Sustainability Engineering Concepts and Approaches

14th-19th July, 2025

Programme Schedule



Date	Time	Topic	Name of Resource Person
14.07.2025	9:00-9:30	Inauguration	
	9:30-12.00 noon	The 3 Pillars of Sustainability	Dr. Anil Kumar, Sr. Vice President (Urban, Water & Hydro) Rodric Consultants Private Limited, New Delhi
	12.00-1.00 pm	Article Discussion	Prof. Ajai Singh Department of Civil Engineering, CUJ, Ranchi
	1.00-2.00 pm	Lunch	
	2.00-4.30 pm	Sustainable Development and Circular Economy	Prof. Brajesh Kumar Dubey, Department of Civil Engineering, IIT Kharagpur
	4.30-5.30 pm	Hands on training/Labs	Dr. Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi
15.07.2025	9:30-12.00 noon	Sustainable Energy Technologies and Green Building	Govinda Somani Associate Director, Grant Thornton, New Delhi
	12.00-1.00 pm	Article Discussion	Dr. S. K. Shukla, Assistant Professor, Department of Environmental Sciences, CUJ, Ranchi
	1.00-2.00 pm	Lunch	
	2.00-4.30 pm	Sustainability challenges in the built environment	Prof. Monto Mani, Centre for Sustainable Technologies Indian Institute of Sciences, Bangalore

	4.30-5.30 pm	Hands on Training/Labs	Dr. Suchit K. Patel, Department of Civil Engineering, CUJ, Ranchi
16.07.2025	9:30-12.00 noon	Integrated Water Resources Management for river basin	Dr. Ajay Pradhan, President & CEO Cetus Consulting Solution Services Pvt Ltd, New Delhi
	12.00-1.00 pm	Article Discussion	Prof. Ajai Singh, Department of Civil Engineering, CUJ, Ranchi
	1.00-2.00 pm	Lunch	
	2.00-4.30 pm	Sustainability Engineering and Life Cycle Analysis	Prof. Manoj K. Tiwari, Coordinator, Centre of Environmental Science and Engineering, Department of Civil Engineering Indian Institute of Technology Kanpur
	4.30-5.30 pm	Hands on training/Labs	Dr. Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi
17.07.2025	9:30-12:00	Sustainable Agricultural Practices	Dr. Neelam Patel, Sr Advisor (Agriculture), Niti Ayog, GoI.
	12:00-1:00	Article Discussion	Dr. Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi
	1:00-2:00	Lunch	
	2:00-4:30	Recent Approaches towards Sustainable Transportation	Ms. Alpna Khara, CEO and FOUNDER - A'sara Consultants, New Delhi
	4:30-5:30	Hands on Training/Labs	Prof. Ajai Singh Department of Civil Engineering, CUJ, Ranchi
18.07.2025	9:00-1:00 pm	Industrial Visit	Prof. Ajai Singh Department of Civil Engineering, CUJ, Ranchi
	1:00-2:00	Lunch	
	2:00-4:30	From Scarcity To Sustainability – The Evolution of Water Policies In India	Prof. Ajai Singh Department of Civil Engineering, CUJ, Ranchi
	4:30-5:30	Hands on Training/Labs	Mr. Rana Ranveer, Department of Civil Engineering, CUJ, Ranchi
19.07.2025	9:30-12:00	Rising role of cybersecurity in ESG using GenAI and Red Teaming	Abhisekh Kumar Singh, Director - Technology for Operations, Accenture, Delhi
	12:00-1:00	Article Summary	Dr. Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi

	1:00–2:00	Lunch	
	2:00–4:00	MCQs and Reflection Journal	Prof. Ajai Singh and Dr.Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi
	5:00-5:30pm	Feedback and Valedictory function	Prof. Ajai Singh and Dr. Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi

14.07.2025	Article Discussion	Prof. Ajai Singh Department of Civil Engineering, CUJ, Ranchi
Fakeha Parween, Pratibha Kumari, Ajai Singh. 2020. Irrigation Water Pricing Policies and Water Resources Management, Water Policy (IWA) , 23(1), 130-141, https://doi.org/10.2166/wp.2020.147		
15.07.2025	Article Discussion	Dr. S. K. Shukla, Assistant Professor, Department of Environmental Sciences, CUJ, Ranchi
Singh, A. K., Choudhary, J. K., Shukla, S. K. , Bauddh, K., Pandey, G., Madhav, S., Singh, A. and Kumar, M. 2024. Agroecosystem Contamination with Heavy Metals Due to Road Transportation: A Global Threat to Safe Food Security, Process Safety and Environmental Protection, https://doi.org/10.1016/j.psep.2024.12.046		
16.07.2025	Article Discussion	Prof. Ajai Singh, Department of Civil Engineering, CUJ, Ranchi
Pratibha Kumari, Ajai Singh , P. K. Parhi. 2024. Assessment of the Effect of Land Use and Climate Change on Natural Resources and Agriculture in the Subarnarekha Basin, India, Using the SWAT, Natural Resources Research, https://doi.org/10.1007/s11053-024-10356-y		
17.07.2025	Article Discussion	Dr. Shikha Chourasiya, Department of Civil Engineering, CUJ, Ranchi
Kumar Ashwini , Rajnish Kumar Verma , Sridharam Sriharsha, ShikhaChourasiya and Ajai Singh (2023), “Delineation of groundwater potential zone for sustainable water resources management using remote sensing-GIS and Analytic Hierarchy Approach in the State of Jharkhand, India”, Ground Water for Sustainable Development, 21, 100908, https://doi.org/10.1016/j.gsd.2023.100908		
19.07.2025	Article Summary	Prof. Ajai Singh Department of Civil Engineering, CUJ, Ranchi



AICTE Training and Learning (ATAL) Academy



Frequently Asked Questions(FAQs) for Participants

(For more details refer to the [Tutorial](#))

Q1. Who can register as a participant?

The faculty members of AICTE approved institutions, research scholars, PG Scholars, participants from Government, MoE/AICTE/UGC, bureaucrats/technicians/participants from industry etc., and students of host institutions (not more than 30%).

Q2. How to apply for workshops?

After login, click on workshops inside menu. There, you can see a list of available workshops, click on plus icon in **red circle** to apply.

Q3. Whom should I contact, if verification email not received by the new user during registration on ATAL portal?

Send an email to the email IDs referred to in the AICTE ATAL ACADEMY web page marked to deal with the queries from states respective.

Q4. Can I change my Email and Phone No. used during registration?

No, you will have to register again with a new email id and mobile number.

Q5. How many FDPs a participant can attend?

A participant can attend a maximum of four (04) FDPs, two Basic and two advance ATAL FDPs in 2023-2024.

Q6. How to retrieve the forgot password?

You are requested to click on the “**Forget Password**” button at <https://atalacademy.aicte-india.org/request-password-reset>

Q7. How to check the status of workshops for which I have applied?

You need to login on the [portal](#) and then click on the Applied **Workshops option** in the **Side Menu** where you can view the applied workshops along with the status as **Applied or Approved**.

Q8. Can I apply for multiple workshops with the same dates?

No

Q9. How can I edit the General details field?

If any edit/change post is essential, then participant has to email on atalhelpdesk@aicte-india.org along with a scanned copy of relevant documents.

Q10. How to edit name of the participant in the certificate?

Name on the certificate cannot be changed. Only minor spelling mistakes/errors can be corrected upon submission of documents substantiating such a modification on atalhelpdesk@aicte-india.org

Please be careful while submitting your details.

Q11. How to request for non-participation for an applied/approved workshop by the participant?

If the status of your applied FDP is “**Approved**”, then please contact the FDP/CPDP coordinator concerned to approve your request as a non-participant.

OR

If the status of your applied FDP is “**Submitted**”, then please delete your entry by pressing sign – (minus) from your login under appliedworkshop.

Q12. What is the minimum attendance and marks required for certification?

Minimum **80% attendance** and **70% marks** in assessment are mandatory requirements for obtaining the certificate.

Q13. Is it Mandatory to submit feedback on FDP for participant certification?

Submitting the feedback of attended FDP is one of the mandatory requirements to receive the certificate.

Q14. Even after fulfilling all the criteria, I am not able to generate mycertificate.

OR

Participants have attended the FDP and are neither able to download the certificate nor received the certificate.

Certificates will be auto-generated and available for download once the following are exercised by coordinator as well as participants after completion of FDP.

- 1) Coordinator has uploaded Mandate, Logo and Signature and all other mandatory documents.
- 2) Participants approved by the Coordinator.
- 3) A minimum 80% attendance and 70% marks earned by the participant- to be uploaded by the Coordinator.
- 4) Participant has filled and submitted the feedback form.

Q15. Can participants claim TA/DA from AICTE for attending FDPs?

A lump-sum travel assistance of Rs. 1600/- would be provided to participants external to the organizing institute, subject to commuting more than 20KM one side to attend the FDP and possessing $\geq 90\%$ attendance.

Q16. Can participants verify their ATAL FDP certificate?

Yes, please click on this [Verify Certificate Here](#) and verify your certificate.

Q17. If ATAL FDPs are counted towards Career Advancement Scheme (CAS) for Teachers?

YES

Q18. What will be detailed session planning of FDP?

Please refer to the Scheme document for ATAL FDPS 2023-24 available in the AICTE –ATAL Web page

AICTE may cancel an approved FDP in case of non-adherence of ATAL Scheme norms, criterion and format.