



National Conference
*Climate Change and Water Security: Mitigation Strategies
and AI Solutions for Developing Countries*

INAUGURAL SESSION

Date: 05 Feb. 2026 & 06 Feb. 2026 | Time: 10:00 - 11:30 AM

<i>Registration of Delegates</i>		9:00 AM -10:00 AM
Welcome Address by Organizing Secretary	Dr. Pratibha Warwade Associate Professor, DCE, CUJ	10:00 AM - 10:05 AM
Opening Address by Patron	Prof. Ajai Singh Dean, School of Engineering and Technology, CUJ	10:05 AM - 10:10 AM
Address by Special Invitee	Prof. Manoj Kumar Dean of Academic Affairs, CUJ	10:10 AM - 10:20 AM
Address by the Chief Guest	Prof. Rajeev Srivastava Director, Indian Institute of Information Technology (IIIT), Ranchi	10:20 AM - 10:30 AM
Address by the Guest of Honour	Shri. Nilesh Sinha Chief General Manager, Centre for Engineering & Technology Steel Authority of India Limited (SAIL), Ranchi	10:30 AM - 10:40 AM
Address by Special Guest	Shri. Pandey Vijay Bhushan Prasad Deputy Director General (State Head, Jharkhand), Department of Telecommunication, GoI, Ranchi	10:40 AM - 10:50 AM
Address by the Honorable Chief Patron	Prof. Kshiti Bhusan Das Honourable Vice Chancellor, Central University of Jharkhand (CUJ), Ranchi	10:50 AM - 11:00 AM
Concluding Remarks and Vote of Thanks by Convenor	Dr. P. K. Parhi Head Department of Civil Engineering	11:00 AM - 11:05 AM
TEA - BREAK		11:05 AM - 11:30 AM

Plenary Session, 5th Feb 2026

<i>Keynote address</i> 11:30- 1:00 PM	Shri. Pandey Vijay Bhushan Prasad, Deputy Director General (State Head, Jharkhand), Department of Telecommunication, GoI, Ranchi
	Dr Neeta Kumari, Assistant Professor, Dept. of Civil & Environmental Engineering, BIT, Mesra, Ranchi
Lunch	
1:00 PM – 2:00 PM	
<u>Technical Session I (Theme I: Climate change Impacts)</u> 2:00 PM - 5:30 PM	
Chairperson:- Dr. P. K Parhi, Head of Department of Civil Engineering, CUJ, Ranchi	
Co-Chairperson:- Dr. Neeta Kumari, Dept. of Civil & Environmental Engineering, BIT, Mesra	
Moderator:- Dr. Kanojia Sindhuben Babulal, Assistant Professor, Department of Computer Science & Engineering	

S.N.	Author	Title of presentation
1.	Mr. Gaurav Kumar, Research Scholar, B.I.T. Mesra, Ranchi, Jharkhand	Dynamic Shift of River Ecosystem from Aquatic to Terrestrial in Kiul River, Lakhisarai, Bihar.
2.	Mr. Prashant Kumar, Central University of Jharkhand, Ranchi	Assessment of Climate Change on Irrigation Water Requirements in Brahmani River Basin.
3.	Mr. Saahil Hembrom, B.I.T. Mesra, Ranchi, Jharkhand	Comparative Performance of ANN and RANDOM FOREST Models for Water Quality Prediction.
4.	Dr. Pawan Kumar Das, Assistant Professor, the Department of Political Science, Mandar College, Ranchi University, Ranchi	India's Water Scarcity in 21st Century: The Challenges Ahead.
5.	Mr. Sunil Kumar Sharma, Research Scholar, Rajasthan College of Agriculture, MPUAT, Udaipur, Rajasthan, India	Changing Rainfall Patterns and Declining Drought Frequency under Climate Change in the Thar Desert Region of Rajasthan, India.
6.	Miss. Ruchi Sirture, Research Scholar, Central University of Jharkhand, Ranchi	Decoupling of Global Teleconnections and the Statistical Collapse of Rainfall Predictability over the Jharkhand.
7.	Dr. Sanny Kumar, Lecturer, Civil Engineering, Government Polytechnic, Chhapra	Understanding Cohesive Sediments Transport Behaviour in Channel Networks with Multi-Grade Bed Load Sediment Using SPSS Software.

8.	Dr. Madhuri Dubey, Asst. Prof., Dayalbagh Educational Institute, Agra	Effect of Climate Change on Hydrological Response of Mahi Bajaj Sagar Catchment.
9.	Miss. Prachi Singh, Research Scholar, Central University of Jharkhand, Ranchi	Importance of Groundwater Modelling for Sustainable Water Management in Coal Mining Areas: A Conceptual Framework Using FEFLOW.
10.	Dr. Bibhuti Bhusan Biswas Assistant Professor, Department of International Relations, Central University of Jharkhand, Ranchi	Climate Change Impacts on Coastal Water Security in the Andaman Islands, India: A Case Study of Sri. Vijaya Puram (Port Blair), Swaraj Dweep, and Shaheed Dweep.

Plenary Session, 6th Feb 2026

Keynote address 9:30-11:00 AM	Prof. Kishanjit Kumar Khatua Professor, Department of Civil Engineering, National Institute of Technology, Rourkela
	Dr. Mintu Job, Associate Professor, BAU, Ranchi
	Dr. Surendra Kumar Chandniha, Assistant Professor/ Scientist, Indira Gandhi Krishi Vishwavidyalaya, Raipur
Tea Break	
11:00 AM - 11:30 AM	
<i>Technical Session II (Theme II: Technology and Innovation)</i> 11:30 AM - 1:00 PM	
Chairperson:- Dr. Subhash Chandra Yadav , Professor & Head, Department of Computer Science & Engineering, CUJ, Ranchi	
Co-Chairperson:- Dr. Pratibha Warwade , Associate Professor, DCE, CUJ	
Moderator: Dr. Nirmali Bordoloi , Department of Environmental Sciences, CUJ Ranchi	

S.N.	Author	Title of presentation
1.	Dr. Ch Jyotiprava Dash, ICAR- Division of Land Use Planning	GIS-Based Mapping of Nitrate Pollution and Health Risk Zonation in Maharashtra.
2.	Dr. Sanjay Kumar, Asst. Prof., Magadh University, Bodh Gaya	AI - Driven Optimization of Irrigation Practices to Enhance Water Use Efficiency under Climate Change Conditions.
3.	Dr. Rashmi Yadav, Asst. Prof. Birsa Agricultural University, Ranchi	Smart IoT - Based Irrigation System for Potted Plants.
4.	Dr. Alpna Dubey, Asst. Prof., College of Agricultural Engineering, Birsa Agricultural University, Ranchi	Estimation Of Soil Erosion and Prioritization Mapping of Khunti Watershed of Jharkhand, India Using GIS.

5.	Mr. Kumar Shubham, Birsa Agricultural University, Ranchi	Effect Of Plastic Mulch and Drip Irrigation on Okra Cultivation During Kharif Season.
6.	Dr. Nity Tirkey, Asst. Prof., Birsa Agricultural University, Ranchi	Temporal Analysis of Soil Erosion Using USLE from Five Different Rainfall Erosivity Equations.
7.	Mr. Kumar Rishikesh Anand, Research Scholar, Central University of Jharkhand, Ranchi	Analysis of Snow Cover Under Climate Change Using Google Earth Engine: A Case Study of Jia Bharali River Basin, India.
8.	Dr. Vibhanshu Kumar, Research Scholar, Central University of Jharkhand, Ranchi	Cloud - Based Hydrological Modelling: AI-Enhanced SCS-CN In Google Earth Engine.
9.	Miss. Mansi Dixit, Research Scholar, Central University of Jharkhand, Ranchi	Digital Technologies for Climate - Adaptive Water Management: An AI, IoT, and Satellite - Based Approach.
10.	Mr. Ayush Lal, Sai Nath university, Ormanjhi, Ranchi & Miss. Sneha Roy, Student Government, Engineering College, Vaishali	Application of Artificial Intelligence (AI) and The Internet of Things (IoT) in Water Management in The State of Jharkhand and Bihar.
11.	Dr R. K. Dey, Professor & Head Department of Chemistry, Central University of Jharkhand, Ranchi	Xerogel for Defluoridation of Drinking Water: Kinetics and Thermodynamics Studies.
12.	Miss. Aindrila Ghosh, Research Scholar, Central University of Jharkhand	Influence of Land Use/Land Cover Transitions on Regional Water Footprint: Evidence from Remote Sensing - Based Change Detection.
13	Devendra Kumar, B. U. Bhopal	Renewable Energy for Water Security and Climate Resilience.
Lunch		1:00 PM – 2:00 PM

Technical Session III (Theme III: Community and Ecosystem Resilience)

3:00PM - 4:30PM

Chairperson:- Dr. Gajendra Prasad Singh, Professor & Head, Department of Metallurgical & Materials Engineering, CUJ, Ranchi

Co-Chairperson:- Dr Birendra Bharti, Associate Prof., DCE, CUJ, Ranchi

Moderator:- Dr. Suchit Patel, Assistant Professor, DCE, CUJ, Ranchi

S.N.	Author	Title of presentation
1.	Prof. Rabindranath Sarma & Aman Hembrom, Professor, Central University of Jharkhand, Ranchi	Traditional Water Management Practices in The Aara-Keram Villages, Ranchi, Jharkhand, India.

2.	Mr. Aman Kumar Singh, Central University of Jharkhand, Ranchi	The Jal Jeevan Mission in Jharkhand: A Critical Analytical Review of Implementation Challenges and Strategic Pathways for Sustainable Rural Water Security.
3.	Prof. Dinesh Kumar Rusia, Professor, Birsa Agricultural University, Ranchi	Different Nursery Growing Techniques for Off - Season Cauliflower and Cultivation Practice Under Plastic Mulch.
4.	Dr Mintu Job, Assoc. Prof., Birsa Agricultural University, Ranchi	Catchment - Storage-Command Relationship for Construction of Water Harvesting Structures in Palamu Region of Jharkhand.
5.	Mr Kadakuntla Manognya, Research Scholar, NIT, Warangal	Enhancing Climate Resilience of Rigid and Flexible Pavements Over Soft Soil Subgrades Using Geogrid Reinforcement: A Finite Element Study.
6.	Dr. T. Neishoning Koireng, Asst. Prof., Central University of Jharkhand, Ranchi	Adaptation of Advancement and Its Impact on Water Resources and Sustainable Management.
7.	Mr. Anish Kumar, Research Scholar at Central, University of Jharkhand, Ranchi	Advancing Precision Water Management: A Comprehensive Review of the SEBAL Model Evolution (1998 - 2025).
8.	Dr Rajashree Padhi, Asst. Prof. Central University of Jharkhand, Ranchi	Traditional Water Management System in Bharat: Revamping Indian Knowledge System in Water Resource Conservation.
9.	Mr. Abhishek Singh, Research Scholar, Central University of Jharkhand, Ranchi	जल संकट का साहित्यिक परिप्रेक्ष्य : केदारनाथ सिंह की कविताओं का विशेष संदर्भ
Valedictory Session		
Valedictory Address		4:30 PM - 5:00 PM
Takeaways from the Seminar and Best Paper Award Ceremony		5:00 PM - 5:20 PM
Concluding Remarks and Vote of Thanks		5:20 PM - 5:30 PM