

INSTITUTION'S INNOVATION COUNCIL (IIC)

ACTIVITY REPORT

SPECIAL GUEST LECTURE

"Navigating the Future: Higher Education, Research, and Innovation Opportunities at IIT Roorkee"

Government Engineering College, Bhuj

1. Session Details

Title of the Session	Navigating the Future: Higher Education, Research, and Innovation Opportunities at IIT Roorkee
Date	04 August 2026
Time	11:00 AM onwards
Mode	Offline
Venue	EC Auditorium, Government Engineering College, Bhuj
Activity Led by	Government Engineering College, Bhuj / Institution's Innovation Council (IIC)
Theme	Higher Education, Research and Innovation
Target Participants	Students and Faculties of Semesters 3, 5 and 7, all branches
Student Participation	203 students

2. Expert / Speaker Details

Name: Prof. Sourav Das

Designation: Professor

Department: Department of Metallurgical & Materials Engineering

Organization/Institution: Indian Institute of Technology Roorkee (IIT Roorkee)

3. Objective of the Activity

The Special Guest Lecture was organized to provide students and faculty members with direct exposure to the academic, research and innovation ecosystem of a premier technical institution, IIT Roorkee. The programme aimed to broaden participants' understanding of opportunities available in higher education and research and to motivate them to consider advanced learning as an important component of their professional development. The session was also intended to encourage students to explore emerging areas of technology, develop a research-oriented mindset, and recognize pathways through which engineering education can lead to innovation and meaningful technological impact. By bringing an

expert from IIT Roorkee to interact with the institute community, the activity created an opportunity for participants to learn from an experienced academic and to become more aware of possibilities beyond their regular curriculum.

4. Theme and Rationale

The theme of the lecture, “Navigating the Future: Higher Education, Research, and Innovation Opportunities at IIT Roorkee,” was designed around three closely connected aspects of professional growth: learning, exploration and innovation. The event communication captured this progression through the messages “Innovation begins with inspiration,” “Learn. Explore. Innovate. The future starts here,” and “A step towards research, innovation, and endless possibilities.” The theme became especially meaningful through Prof. Das's discussion of his ongoing research on hydrogen transmission through PNG pipes and the role of steel microstructure in understanding pipeline-material behaviour. The topic demonstrated how emerging energy technologies create new research questions at the intersection of energy systems, materials engineering and infrastructure. It enabled students to see how advanced research originates from practical engineering challenges and how specialized knowledge can contribute to future energy-transition solutions. The participation of students from Semesters 3, 5 and 7 across all branches further supported a broad, institute-level academic and innovation dialogue.

5. Brief Description of the Activity

Government Engineering College, Bhuj organized a Special Guest Lecture on 04 August 2026 at the EC Auditorium under the theme “Navigating the Future: Higher Education, Research, and Innovation Opportunities at IIT Roorkee.” The programme featured Prof. Sourav Das, Professor in the Department of Metallurgical & Materials Engineering, IIT Roorkee, as the invited speaker. The session provided students and faculty members with an opportunity to gain an in-depth perspective on contemporary research, higher education and innovation. A particularly valuable part of the lecture was Prof. Das's discussion of his ongoing research related to the transmission of hydrogen through PNG (Piped Natural Gas) pipeline systems. He explained the research context and the challenges associated with understanding the behaviour and transmission of hydrogen in pipeline materials, thereby connecting emerging energy-transition technologies with materials engineering and infrastructure reliability. Prof. Das also discussed steel microstructure and its importance in understanding the behaviour and performance of steel used in pipeline applications. The discussion helped participants appreciate how microscopic material features and metallurgical characteristics can influence engineering performance and the suitability of materials for emerging energy applications. These research insights gave students a practical view of how fundamental materials science connects with real-world energy and infrastructure

challenges. The lecture also encouraged participants to look beyond conventional academic pathways and explore research, advanced learning and innovation opportunities. Students and faculty from Semesters 3, 5 and 7 across all branches participated, with a total of 203 students actively attending the programme. The session concluded with an interactive exchange that encouraged participants to remain curious, explore emerging research areas and consider research and innovation as important pathways towards future-ready engineering careers.

6. Participant Details

Total Student Participation: 203

Total Staff Participation: 18

Target Student Semesters: 3, 5 and 7 – All Branches

7. Key Highlights

- 203 students actively participated in the programme. Students and faculty members from Semesters 3, 5 and 7 across all branches were invited to participate.
- The lecture focused on higher education, research and innovation opportunities.
- The programme encouraged students to explore advanced academic and research pathways. Prof. Das shared insights from his ongoing research concerning hydrogen transmission through PNG (Piped Natural Gas) pipes. The lecture also included an in-depth discussion on steel microstructure and its relevance to pipeline-material behavior and emerging hydrogen applications.
- The session promoted a future-ready mindset based on continuous learning, exploration and innovation. The activity strengthened interaction between the institute community and a premier higher-education and research institution.

8. Outcome of the Activity

The activity created greater awareness among participants about higher education, research and innovation and demonstrated how advanced research addresses practical engineering challenges. The discussion on Prof. Das's ongoing research concerning hydrogen transmission through PNG pipes provided students with exposure to an emerging energy application and the associated materials-engineering questions. The discussion on steel microstructure further helped participants understand the importance of material characteristics in evaluating engineering performance and developing materials for new applications. These examples connected fundamental scientific understanding with real-world infrastructure and energy-transition challenges. Students were encouraged to consider postgraduate education and research as viable pathways for professional growth and to develop a stronger research

orientation in their academic projects. With participation from 203 students across Semesters 3, 5 and 7 and all branches, the programme contributed to developing a wider research- and innovation-oriented culture within the institute.

9. Organizing Team Members Details

1. Prof. P.P. Rathod: Overall coordination
2. Prof. G.V. Bhatt: Programme planning and participant management
3. Prof. M.P. Vyas, Prof. B.K. Gotawala: Event hosting and student management
4. Prof. B. D. Patel and Student Volunteers (Arpan Solagama, Jeet Vaidya, Dilip Suthar – Registration, venue arrangements, technical support and photography

Photographs / Screenshots

INSTITUTION'S INNOVATION COUNCIL
(Ministry of HRD Initiative)

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GOVERNMENT ENGINEERING COLLEGE, BHUJ

★ **SPECIAL GUEST LECTURE** ★

“ **NAVIGATING THE FUTURE**
HIGHER EDUCATION, RESEARCH, AND
INNOVATION OPPORTUNITIES
AT IIT ROORKEE ”

SPEAKER:
Prof. Sourav Das
Professor, Department of Metallurgical & Materials Engineering
IIT Roorkee

EVENT DETAILS

DATE August 4, 2026	TIME 11:00 AM Onwards	VENUE EC Auditorium	FOR STUDENTS & FACULTIES OF SEMESTERS 3, 5, AND 7 (ALL BRANCHES)
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Don't miss this innovation opportunities



12. Social Media Activity

The event was promoted through institutional social-media communication with emphasis on the opportunity to gain insights from IIT Roorkee. The promotional messages highlighted innovation, inspiration, research, higher education and future-readiness.

<https://www.instagram.com/p/DblkH0XzsPI/?igsh=aXY2ZDAydWhwbXI1>

13. IIC / SSIP Alignment

The activity supports the objectives of the Institution's Innovation Council by promoting awareness of research, innovation, higher education and future academic opportunities. It also contributes to the development of an innovation-oriented institutional culture by connecting students with an expert from a premier research and higher-education institution.