



## CSIR-Central Building Research Institute Roorkee (Uttarakhand)

### Visit of School Students at CSIR- CBRI

19<sup>th</sup> November, 2024

On November 19, 2024, the Institute successfully hosted an enriching educational visit as part of the Jigyasa 2.0 initiative. This event aimed to spark scientific curiosity and provide students with an insight into the latest research and innovations in building science and technology. Students and teachers from participating school were graciously received by the Institute.



As a precursor to IISF 2024, the Institute hosted a Curtain Raiser Event .The event aims to inspire and showcase the role of science and technology in India’s development, in line with initiatives like Make in India and Atmanirbhar Bharat. The theme, “Transforming India into a Science and Technology Driven Global Manufacturing Hub,” reflects the nation’s vision for a self-reliant, technologically empowered future. The event was graced with the active participation of around **50** students and **4** faculty members from KV School, Roorkee .Their visit aimed to gain a comprehensive understanding of the R&D activities and outcomes at CSIR-CBRI. The event featured an interactive program between scientists and students, promoting curiosity and engagement with scientific developments. The students were introduced to the institute’s prestigious Ctesiphon Exhibition Gallery, which displayed cutting-edge research and innovations, showcasing the progress made by CSIR-CBRI from its inception to date .Among the notable projects highlighted were the construction of the

Ram Mandir, an iconic architectural feat, and the successful demolition of the Super-tech Twin Towers, which was a remarkable achievement in controlled building demolition. These projects sparked great interest among the students, and they were eager to learn more about the technologies and innovations presented. A vibrant and continuous student-scientist interaction took place throughout the event, allowing students to ask questions and engage with the Scientists.



The event commenced with an inspiring inaugural address by the Director of CSIR-CBRI. He delved into the theme of IISF 2024, emphasizing the critical need to harmonize modern infrastructure development with the natural environment. He stressed the importance of ensuring equitable opportunities for citizens across all regions to achieve their full potential through the power of science and technology. The Director also underlined the shared responsibility of transforming India into a developed nation (Viksit Bharat), motivating students to dedicate themselves to this national aspiration. His speech aligned seamlessly with India's vision of emerging as a global leader in manufacturing, innovation, and sustainable progress.





He also encouraged the students to cultivate a scientific mindset, emphasizing the importance of innovation and research in shaping a progressive and self-reliant nation. The program commenced with an engaging introduction to IISF 2024 by Dr. Harpal Singh, Chief Scientist, who highlighted the festival's objectives and its role in propelling India's scientific aspirations forward.

The event concluded with a heartfelt Vote of Thanks by Dr. D. P. Kanungo, Chief Scientist, who warmly acknowledged the efforts of all participants, organizers, and faculty members for their valuable contributions. The seamless coordination of the event was expertly managed by Sh. Nadeem Ahmad, Chief Scientist, ensuring its smooth and successful execution. The program continued with two technical lectures from eminent scientists Er. Humaira Athar and Er. Solanki. K., who presented on advanced topics in the fields of **“Turning Pollution into Possibilities: How Carbon Capture Works”** and **“The Role of IoT in Transforming Industries”** respectively.

In the first lecture Er. Humaira Athar explained innovative ways to transform pollution into opportunities, focusing on the concept of carbon capture and its potential to create valuable solutions from harmful emissions. The lecture explored the innovative technology of carbon capture, emphasizing its role in combating climate change by reducing harmful CO<sub>2</sub> emissions. This approach not only helps mitigate pollution but also promotes sustainable innovation by turning environmental challenges into opportunities for growth and development.

In the 2nd lecture Er. Solanki. K discussed the significance of IoT in transforming Industries, explained how the Internet of Things (IoT) is revolutionizing industries by enabling smarter, more efficient operations. He provided a detailed overview of IoT connects devices, machinery, and systems, allowing real-time data collection and analysis. This technology improves productivity, enhances decision-making, reduces costs, and promotes automation in sectors like manufacturing, healthcare, agriculture, and logistics. By fostering innovation and enabling seamless integration of processes, IoT is paving the way for a more connected and efficient industrial future. These talks

highlighted the transformative potential of modern technology in everyday life and sustainable development, creating a highly engaging and informative experience for students.



The program was enriched by the active participation of Dr. Chandan S. Meena, Dr. Hemlata, Dr. Tabish Alam, Dr. Naveen Nishant, Er. K. Solanki, and Dr. Suman, whose expertise and interactions with students greatly enhanced the event's impact. All Staff member, students, Training & AcSIR students actively participated in the event, gaining valuable insights and thoroughly enjoying the experience.

At the end of the event, students and faculty members expressed their heartfelt gratitude to CSIR-CBRI for providing such a valuable and inspiring learning experience. By showcasing the latest innovations in building science, structural engineering, and sustainable technology, CSIR-CBRI inspired a new generation of learners to think critically about the future of infrastructure and their potential role in shaping it.

