



## CSIR-Central Building Research Institute Roorkee (Uttarakhand) Scientists and Students Interaction Program 10<sup>th</sup> September, 2024

On 10<sup>th</sup> September 2024, the **CSIR-Central Building Research Institute, Roorkee**, successfully organized a Scientists-Students Interaction Program as part of the Jigyasa 2.0 initiative. Themed "The Future of Smart Technology: Robotics and IoT," the event was graced with the active participation of **150 students** and **10 faculty members** from **Kendriya Vidyalaya 1, Roorkee**. The program aimed to introduce students to cutting-edge technologies like Robotics and IoT, meanwhile highlighting CSIR-CBRI's advanced research and innovations in Building Science and Technology.



The program commenced with a warm welcome from Mr. Nadeem Ahmad, Chief Scientist and Nodal Officer for Jigyasa 2.0, and Dr. Hemlata, Senior Scientist, who provided a brief overview of the initiative and its objectives. In his presidential address, Prof. R. Pradeep Kumar, Director of CSIR-CBRI, highlighted the rapid advancement of technology and the importance of understanding its core principles. He encouraged the students to maintain a curious mindset and pursue continuous learning, emphasizing the role of emerging technologies in shaping the future.

The program emphasized two insightful technical sessions. The first lecture, delivered by Dr. Ravindra Singh Bisht, Principal Scientist, focused on "The Future of Smart

Technology: Robotics and IoT." Dr. Ravindra Singh Bisht introduced students to the world of robotics, discussing key topics such as the laws of robotics, different types of robots, and their applications across industries. He also highlighted some of the innovative robots developed by CSIR-CBRI and delved into bio-inspired robot designs, giving students a comprehensive understanding of the subject.



Subsequently, Er. Chandrabhan Patel, Scientist, presented an engaging lecture on the "Role of Electronics and Computers in IoT (Internet of Things)." He discussed the significance of IoT in modern technology, explaining concepts including IoT programming, smart house technologies, data transmission techniques, and the use of open-source platforms including Arduino Cloud. He provided a detailed overview of how electronics and computing technologies are revolutionizing the IoT landscape, sparking the students' interest in the field. Throughout the lectures, the students actively engaged, asking questions and interacting with the scientists.

Following the informative lecture sessions, students and faculty were taken to the CSIR-CBRI's CA&R group laboratory, where they observed live demonstrations of robotics



and explored the innovative technologies developed by the Institute. This hands-on experience allowed them to witness firsthand the practical applications of advanced research in building science, including smart technologies being integrated into infrastructure and robotics solutions.

The event was coordinated by Dr. Hemlata, Senior Scientist. Ar. S. K. Negi, Chief Scientist, Dr. Tabish Alam, Senior Scientist, Er. Ashish Pippal, Senior Scientist, and team members including Ms. Gunjan Joshi, Ms. Prachi Dhingia, Mrs. Pooja, Ms. Namita Shah, Mr. Amzad and Mr. Mahesh were also present during the said event.

The event was concluded with participants expressing their gratitude for the knowledge gained during the event. They commended CSIR-CBRI for its initiative in organizing such an impactful and educational program, which not only broadened their understanding of Robotics and IoT but also opened their eyes to the vast possibilities within the field of Building Science and Technology. Both students and educators left the event inspired and eager to explore these dynamic fields further.

