Report on "Fostering Innovation in Robotics: A Hands-on Workshop for School Students"

Date: 07-02-2025

Place: Government Model Senior Secondary School, Kunihar, District Solan, Himachal Pradesh



A workshop on innovation in robotics was conducted by the Enkindle Club of Jaypee University of Information Technology (JUIT) at Government Model Senior Secondary School, Kunihar, District Solan, Himachal Pradesh. The session was led by Dr. Aman Sharma, accompanied by his first-year B. Tech student, Abhinandit Sharma. The primary objective of the workshop was to provide school students with hands-on experience with a robotic arm and to inspire innovation in robotics at an early stage.

The workshop aimed to introduce students to the fundamentals of robotics through practical demonstrations. Dr. Aman Sharma, an expert in the field, guided the students in understanding the working principles of robotic arms and their applications in various industries. The session was designed to engage students actively, allowing them to interact with and operate the robotic arm. Abhinandit Sharma, a first-year B. Tech student, shared his insights and experiences as a budding engineer, emphasizing how early exposure to robotics can shape a student's career in technology. The interactive approach of the workshop ensured that students were not only spectators but active participants in the learning process.

During the workshop, Dr. Aman Sharma highlighted the role of ATAL Tinkering Labs in fostering innovation among young students. He discussed how these labs, established under the Atal Innovation Mission, provide a platform for students to experiment with robotics and other emerging technologies. He emphasized that early exposure to such resources can significantly help students in

adapting to the robotics ecosystem when they pursue higher education in engineering and technology. The students exhibited great enthusiasm and curiosity during the workshop. Many of them actively participated in operating the robotic arm, asking insightful questions about its working mechanisms and potential applications. Their engagement demonstrated a keen interest in robotics, reinforcing the importance of conducting such workshops at the school level.

The workshop successfully ignited a spark of innovation among the school students, providing them with a practical understanding of robotics. The initiative by Enkindle Club, JUIT, proved to be a valuable learning experience for the participants. Dr. Aman Sharma's insights on the significance of ATAL Tinkering Labs further motivated the students to explore robotics and technology-driven fields. Such workshops play a crucial role in shaping the future of young minds, encouraging them to pursue careers in engineering and innovation. To build upon the success of this workshop, it is recommended to organize similar sessions at different schools to reach a broader audience, encourage students to work on small robotics projects to reinforce their learning, facilitate direct collaboration between schools and ATAL Tinkering Labs to provide students with better resources and mentorship, and engage university students in mentoring school students interested in robotics.

The workshop was a significant step towards bridging the gap between school education and university-level technological advancements, ensuring a brighter future for aspiring engineers and innovators.















