Report on “Drone Technology & Robotics”

Date- 29/11/2024

On 29th November 2024, a seminar on "Drone Technology and Robotics" was organized by the Institution's Innovation Council (IIC) of PRSU Raipur. The event took place at the School of Studies in Computer Science & IT, PRSU Raipur, with the goal of educating students and professionals on the latest advancements in drone and robotics technology, and their applications in various industries. The event was attended by students, faculty, and tech enthusiasts who were eager to gain insights into these rapidly growing fields. The event commenced with a warm welcome by Dr. Sanjay Kumar, Head of the Department (HoD) of the School of Studies in Computer Science & IT, PRSU Raipur. Dr. Kumar extended a heartfelt welcome to all the guest speakers and participants, emphasizing the importance of staying updated with the latest technological developments in drones and robotics. He highlighted how such events provide a valuable opportunity for students to expand their knowledge and explore new career avenues in these cutting-edge fields. Dr. Ankit Mishra, a leading expert in robotics, started his presentation by explaining the fundamental concepts of robotics. He elaborated on the advancements in robotic technology, including the integration of AI, machine learning, and automation. Dr. Mishra also discussed the various applications of robotics in industries such as healthcare, manufacturing, and agriculture. A significant part of Dr. Mishra’s talk focused on career opportunities in robotics. He provided valuable advice to students, outlining the necessary skills and qualifications needed to build a successful career in this field. Dr. Mishra also emphasized the importance of interdisciplinary knowledge, encouraging students to explore a wide range of subjects that complement robotics, such as electronics, programming, and mechanical engineering. Dr. Rana provided an in-depth session on drone technology, focusing on its types, functions, and sensors used in modern drones. She explained how drones are classified into various types, such as multi-rotor drones, fixed-wing drones, and hybrid drones. Dr. Rana further discussed the components of drones, including GPS systems, cameras, and payload systems, highlighting their importance in the accurate operation of drones. A major highlight of Dr. Rana’s lecture was her explanation of the different sensors used in drones, such as infrared sensors, LiDAR sensors, ultrasonic sensors, and barometric pressure sensors. She detailed how these sensors enable drones to perform complex tasks like object detection, navigation, and environmental mapping. Dr. Rana’s talk left the audience with a deeper understanding of the technical aspects of drone technology. Dr. Rita concluded the guest speaker session by providing an insightful lecture on the practical applications of both drones and robotics. She elaborated on how drones are transforming industries such as agriculture (for crop monitoring and pesticide spraying), delivery services, and environmental monitoring. Dr. Rita also discussed the growing role of robotics in fields like medicine, where robots assist in surgeries and rehabilitation.







Conclusion/Outcomes

The seminar concluded with a vote of thanks by Dr. Sanjay Kumar. The event was a great success, offering valuable insights into the fields of drone technology and robotics. The expertise shared by the guest speakers, Dr. Ankit Mishra, Dr. Rana, and Dr. Rita, provided participants with a deeper understanding of the technologies and their applications. The seminar not only broadened participants' knowledge but also encouraged them to explore career opportunities and contribute to the growing fields of drones and robotics. The event was an excellent platform for networking and knowledge exchange, and it is hoped that such events will continue to inspire and guide students toward a future in these exciting technological domains.