Seminar Report: "5G Technologies and Its Applications"

The seminar titled "5G Technologies and Its Applications" was held at St. Joseph's University on 13th September 2024, gathering students and faculty to explore the transformative potential of 5G technology. The program was co-ordinated by Dr. Sivakannan Subramani, IEEE Student Branch Counsellor. The event began with a prayer led by Syed Hammad, Documentation Head of the IEEE Student Branch, setting a reflective tone.

Dr. Jayathi Bhadra, Head of the Department of Advanced Computing, delivered the welcome speech, extending warm greetings to the dignitaries and attendees. She emphasized the importance of keeping pace with emerging technologies like 5G, which are set to revolutionize numerous industries.

Rev. Fr. Denzil Lobo SJ, Dean of the School of Information Technology, gave an insightful Presidential Address. He discussed the telephone revolution, tracing the evolution of communication technology from early systems to modern advancements, laying the groundwork for understanding the impact of 5G.

The first introduction to the guest speakers was made by Dr. Deepa Nagalvi, IEEE Computer Society Advisor, who introduced the chief guest Dr. Siddalingappagonda Biradar. She highlighted his expertise and contributions in the telecommunications field. Later Mrs. Jeshma D'souza then introduced the second chief guest, Dr. Shashi Ranjan. She highlighted his extensive knowledge in technology and his work in 5G applications.

Dr. Biradar's keynote speech covered critical aspects of 5G technology. He explained the necessity of a robust network for performing computation tasks, detailed the internal structure of mobile phones, and discussed signal modulation and different types of antennas. He further explored 5G networks and bands, and touched upon the Juhi Chawla 5G lawsuit, providing a comprehensive view of the public concerns related to the technology.

Dr. Ranjan's speech focused on how 5G will be applied across various sectors, especially in the Internet of Things (IoT). He addressed the potential health hazards associated with 5G, distinguishing its unique features from earlier generations. Additionally, he spoke about 5G's role in transforming industries, the concept of sustainable technology, and the implementation of private 5G networks.

The seminar concluded with a vote of thanks by Johnviston Dias, Student Chair of the IEEE Student Branch, who expressed gratitude to the speakers, organizers, and attendees. The event successfully provided deep insights into the possibilities and challenges surrounding 5G technology and its applications.

For the Images of the Report on 5G Technologies and Its Applications, kindly refer to the Photo Gallery: **https://www.sju.edu.in/gallery/106**