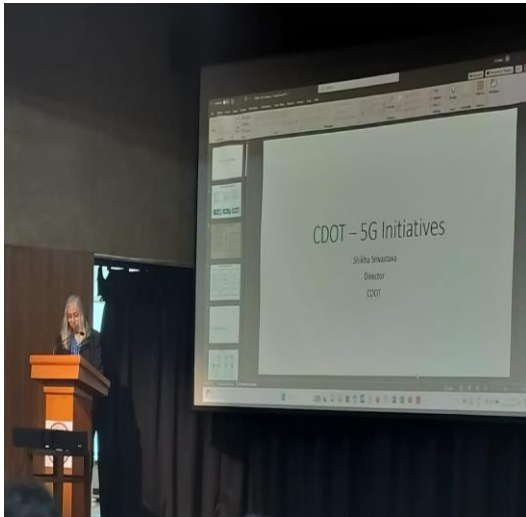# 5G & BEYOND CONFERENCE (07 MARCH 2024)

The 5G and Beyond Conference was hosted by **Ms. Vinti Nayar** and **Ms. Aysha Parveen.** They commenced the session with introductory remarks, providing a brief overview of the conference's themes and topics, including semantics, haptics, and the future of 5G technology and beyond.

Prof. Brejesh Lall: He delivered the introductory speech at the inauguration of the conference, where he not only extended a warm welcome but also shared his valuable perspectives on topics such as semantic communication, the future of 5G, and beyond. In his remarks, he delved into the potential implications of these emerging technologies, providing attendees with a deeper understanding of their significance in the current landscape and beyond.

Prof. Subrat Kar: He presented a lecture titled "**Why 6G ticks some boxes for me**", where he explored the possibilities and merits of next-generation communication technologies beyond 5G. During his talk, he delved into the potential advancements and innovations that 6G technology offers, shedding light on its promising features and how it might shape the future of connectivity. Additionally, he discussed the broader implications of 5G & beyond technology, highlighting its transformative impact on various industries and society as a whole.

Prof. Arzad Alam Kherani: He presented an engaging and insightful discussion on haptics during the conference, participating remotely. Throughout his presentation, he provided a thorough examination of haptics, delving into intricate details and fostering a deep understanding of the subject matter. His talk offered valuable insights into the realm of haptics, exploring its applications, advancements, and potential implications. By sharing his expertise and knowledge, he enriched the conference proceedings and contributed to the collective understanding of this fascinating field.

Prof. Ashish Singh Patel: He delivered a captivating and enlightening presentation on multi-access edge computing (MEC) during the conference, joining virtually. Throughout his session, he conducted a comprehensive analysis of MEC, offering detailed insights into its concepts, functionalities, and potential applications. His presentation delved into the intricate workings of MEC, exploring its role in optimizing network performance, enhancing latency-sensitive applications, and facilitating edge computing capabilities. By sharing his expertise remotely, he enriched the conference with valuable knowledge and stimulated thoughtful discussions on the evolving landscape of edge computing technologies.

Prof. Subidh Ali: He delivered a captivating and enlightening presentation on security, captivating the audience with his insights and expertise in the field. Throughout his session, he conducted a thorough and detailed analysis of various aspects of security, covering topics ranging from cybersecurity threats to data protection measures. He provided valuable insights into the evolving landscape of security challenges and solutions, offering practical strategies for mitigating risks and safeguarding sensitive information. By delving into the complexities of security issues, he sparked meaningful discussions and empowered attendees with knowledge to address the ever-changing security landscape effectively.
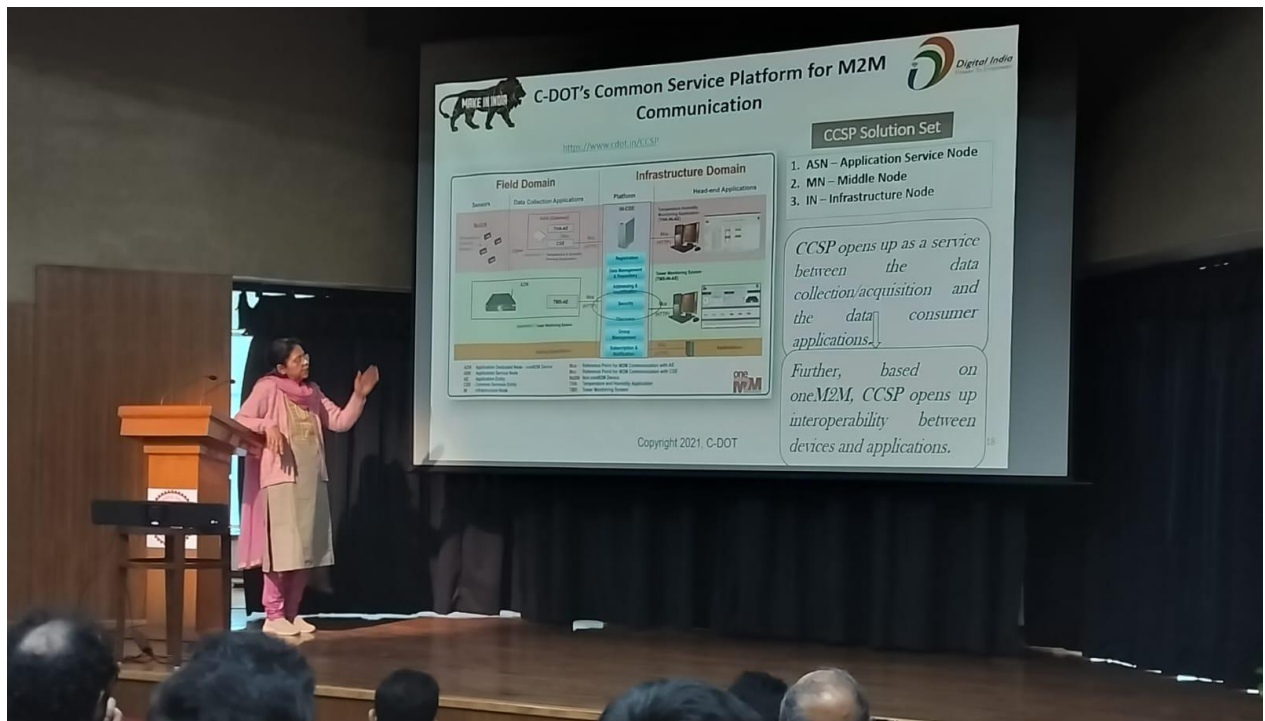
Prof. Dhiman Saha: He delivered a captivating and enlightening presentation on security, as well as patent-related matters, captivating the audience with his deep insights and expertise in both domains. Throughout his session, he provided a compelling analysis of security principles and patent-related topics, offering valuable perspectives on how these areas intersect and influence each other. His presentation not only shed light on the complexities of security challenges but also delved into the intricacies of patent law and its implications for technological innovation. By sharing his knowledge and expertise, he engaged the audience and fostered a deeper understanding of both security and patent-related issues, leaving a lasting impact on conference attendees.
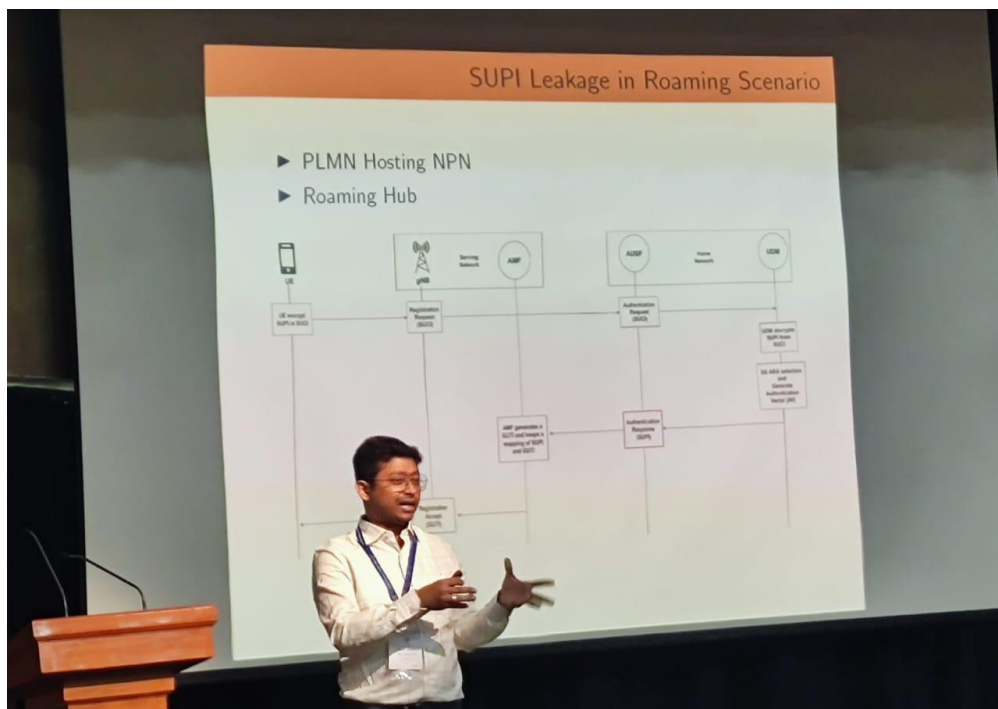
Ms. Shikha Srivastava Director C-DOT:

During her presentation at the conference, she brought attention to the initiatives and future research and development (R&D) endeavors undertaken by C-DOT. By doing so, she shed light on the ongoing efforts of C-DOT in driving innovation and technological advancements. Additionally, she discussed the organization's strategic vision for future R&D projects, providing insights into the direction in which C-DOT is headed. This presentation not only underscored C-DOT's commitment to pushing the boundaries of technology but also served as an opportunity to showcase their potential contributions to the evolving landscape of telecommunications and related fields. Attendees gained valuable insights into C-DOT's initiatives and got a glimpse of the exciting developments that lie ahead in their R&D pipeline.

Prof. Soumava Mukherjee: He delivered a captivating and enlightening session focusing on PHY/RF, where he delved into the intricacies of this aspect of communication technology. Throughout his presentation, he offered valuable insights into the evolution of 5G technology, particularly emphasizing its impact on PHY/RF components. By exploring the advancements and innovations within 5G, he provided the audience with a deeper understanding of how these developments influence PHY/RF design and implementation. His presentation not only captured the audience's attention but also enriched their knowledge base, equipping them with valuable insights to navigate the evolving landscape of telecommunications and 5G technology.

Prof. Vireshwar Kumar: He presented an engaging and enlightening session that centered on security, diving deep into the complexities of this vital component of communication systems. Throughout his presentation, he explored various facets of security, including its implications and challenges within the context of application capture system diagrams. By dissecting the intricacies of security within these diagrams, he provided the audience with a comprehensive understanding of the measures necessary to safeguard communication systems effectively. His captivating presentation not only captured the audience's attention but also empowered them with knowledge to address security concerns within their own systems.

Ms. Meenakshi Agarwal, Scientist at MeitY: She delivered a compelling and informative session focused on the research and development (R&D) initiatives undertaken by the Ministry of Electronics and Information Technology (MeitY) concerning broadband cellular standards. Throughout her presentation, she provided insights into the various R&D efforts led by MeitY aimed at advancing broadband cellular standards. This included discussions on the latest technological advancements, ongoing projects, and future directions in this domain. By shedding light on MeitY's initiatives, she not only highlighted the organization's commitment to technological innovation but also offered attendees valuable insights into the evolving landscape of broadband cellular standards. Her engaging session sparked discussions and provided a deeper understanding of the efforts driving advancements in this crucial area of telecommunications.

Dr. Debashish Mitra delivered a compelling and informative presentation, concentrating on the intricacies of software systems and networks. Throughout his talk, he provided valuable insights into the dynamics of software systems and network architecture. Likely, he delved into topics such as system design, network protocols, and the integration of software with network infrastructure. By exploring these areas, he offered attendees a deeper understanding of the complex interactions between software and networks, highlighting key considerations for optimizing performance, security, and scalability. His presentation likely sparked engaging discussions and provided attendees with practical knowledge to navigate the evolving landscape of software systems and networks.

Panel discussion

Moderator **Mr. Pranav Jha**, a telecom expert, wrapped up the day with panel discussion on Software-Defined Radio (SDR), featuring esteemed experts. The panelists included **Mr. Aurindam Bhattacharya** from CDOT, **Dr. Debashish Mitra**, industry representatives, and Professors **Soumava Mukherjee** and **Vireshwar Kumar**.

During the discussion, Mr. Jha facilitated a dynamic exchange of ideas and insights among the panelists, covering various aspects of SDR technology. Each expert brought their unique perspective to the table, sharing their experiences and expertise in the field. Aurindam Bhattacharya, representing CDOT, likely provided insights into the practical applications and advancements of SDR within telecommunications infrastructure. Debashish Mitra, drawing from his experience, may have discussed industry trends and challenges related to implementing SDR solutions. Professors Soumava Mukherjee and Vireshwar Kumar likely contributed academic perspectives, exploring the theoretical underpinnings and potential future directions of SDR research. Overall, the panel discussion served as a valuable platform for exchanging knowledge, fostering collaboration, and stimulating further exploration into the realm of Software-Defined Radio.

THANK YOU