

ARTIFICIAL INTELLIGENCE IN NEXT GENERATION COMMUNICATION

Day-1 (Session 1) – 08 March 2024

The 'Artificial intelligence in the Next Generation communication' workshop began with session I on 5G core & slicing, on the 8th day of March 2024. The workshop's keynote address was by the PI Prof Brejesh Lall.

Prof. Brejesh Lall played a crucial role in commencing the workshop by delivering the opening speech setting the objectives & tone for the day. Prof Lall provided substantial insights into research topics like Analytics in video, Semantics Communications, and multimodal data. Prof Lall's leadership proved vital in setting the workshop's tone and offering valuable perspectives on relevant subjects.



Vishnu Ram OV: Described the opportunities for students in ITU Kaleidoscope. He highlighted Prof Lall & his teams research alignment to ITU-T Focus Group for AI/ML. Innovate for Impact, and WTSA 2024. **ITU Kaleidoscope 2024** - Innovation and digital transformation for a sustainable world - is the fifteenth in a series of peer-reviewed academic conferences organized by ITU to bring together a wide range of views from universities, industry, and research institutions. This year, given the location in New Delhi from 21-23 Oct 2024, on the sidelines of WTSA, the conference provides an important opportunity for academia in IITD. IITD is also an academic partner of the conference. Vishnu also explained a list of best practices for publishing in the conference and resources available for the Standards Driven Research.



Pranav Jha: Pranav Jha Industry expert and presently leading 5G research out of IIT Bombay presented an engaging and enlightening session that focused on the intricacies of 5G and network slicing. Throughout the session, he delved deeply into the complexities and nuances of these topics, offering insights that captivated the audience's attention and enhanced their understanding. He covered various aspects like technical architecture of 5G networks, SDN & NFV and the concept of network slicing to optimize resources for different applications, and the implications of these advancements for various industries. By providing detailed explanations and real-world examples, he enabled the audience to grasp the significance of 5G and networking slicing in the context of today's rapidly evolving technological landscape. Additionally, his ability to communicate complex concepts in a clear and accessible manner likely contributed to the session's success, leaving attendees feeling informed and inspired by the potential of these technologies. Overall, his presentation not only educated the audience but also sparked meaningful discussions and further exploration into the transformative power of 5G and networking slicing.



Ms. Yukti Kaura: She delivered a captivating and informative session centered on the complexities of 5G and network slicing, also leading the discussion on 5G core and NWDAF. Throughout her presentation, she thoroughly explored the intricacies of these subjects, providing valuable insights that held the audience's interest. Her ability to delve deeply into these topics and offer nuanced perspectives contributed to the session's success, engaging attendees, and fostering a deeper understanding of 5G technology and its associated concepts. Overall, her presentation was both engaging and enlightening, leaving a positive impact on the audience and enhancing their knowledge in the field of telecommunications.



SESSION 2:

The Artificial intelligence in the next generation and beyond workshop session II (MEC-5G) on 8th March 2024 was hosted by Ms. Aysha Parveen. She began the session by delivering introductory remarks.

Mr. Gaurav Shukla: He conducted a captivating session focused on Multi Access Edge Computing (MEC). Throughout his presentation, he thoroughly delved into the complexities of the MEC Testbed deployed at IITD with RAN Emulator & 5G SA Core in virtual environment, offering valuable insights that captivated the audience. His comprehensive analysis and nuanced perspectives played a crucial role in the session's success, actively engaging participants and promoting a deeper understanding of MEC.



Shashvat Sanadhya: He conducted a captivating session focused on Multi Access Edge Computing (MEC). Throughout his presentation, he thoroughly examined the complexities of his

research and development work on ETSI, 3GPP, and OAI compliant Multi Access Edge Computing Testbeds at IITD, providing in-depth insights that captured the audience's attention. His comprehensive exploration of these topics not only engaged participants but also facilitated a deeper understanding of MEC.



Prof. Ashish Singh Patel: He delivered an engaging and informative presentation on multi-access edge computing (MEC), shedding light on the research and development efforts concerning ETSI, 3GPP, and OAI compliant Multi Access Edge Computing Testbeds during the virtual workshop. Throughout his session, he conducted a thorough examination of MEC,

providing 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 enabling edge computing capabilities. By sharing his expertise remotely, he enriched the workshop with valuable knowledge and sparked thoughtful discussions on the evolving landscape of edge computing technologies.



Finally kudos to Aysha Parveen for her expert steering of the Conference & workshop on the 3 days.

Much Appreciation to Riya Sen for her expert handling of the technicalities of the Hybrid sessions.



Thank You Misbah for your expert co-ordination for Session I.



Artificial Intelligence in the Next Generation and Beyond

Managed by: Bharti School of Telecommunication Technology and Management,

IIT Delhi, Hauz Khas, New Delhi- 110016

Venue: Auditorium, Ground floor, Research & Innovation Park, IIT Delhi, Hauz Khas Campus, New Delhi-110016



8th March (Day 1)

Registration- 09:00-09:30

Inauguration & Keynote (10:00—11:00)

Tea & Snacks (11:00-11:30)

Session 1: 5G Core & Slicing

• Pranav Jha (IIT Bombay)

Topic: 5G & Network Slicing

Yukti Kaura (IITD)

Topic: Core Networks

Lunch - (13:00-14:00)

Session 2: MEC-5G (14:00-17:00)

Gaurav Shukla(IITD)

Topic: MEC-5G Test-Bed Development

Shashvat Sanadhya Topic: NFV and OAI

Dr. Ashish Singh Patel
 Topic: Edge Intelligence

High Tea (17:00-17:30)

9th March (Day 2)

Registration - 09:30-10:00

Session 1: Semantic Communication

- Prof. Brejesh Lall
- Prof. Rahul Pandhya
- Prof. Vimal Bhatia

Tea Break - (11:00-11:20)

- Tushan Sivalingam
- Prof. Sridhar Iyer
- Panel Discussion (Semantic Communication:
 The next Frontier in Communication)

Lunch- (13:00-14:00)

Session 2: Next Generation (14:00-17:00)

- Hyper spectral for Metrology
- Haptics
- Future of content in Next Generation Communication
- 3-D vision
- Panel Discussion
 High Tea (17:00-17:30)







THANK YOU