**Professional Development Program
on
Emerging Technologies for Next-Generation Wireless Communication Systems**

March 12– 14, 2024
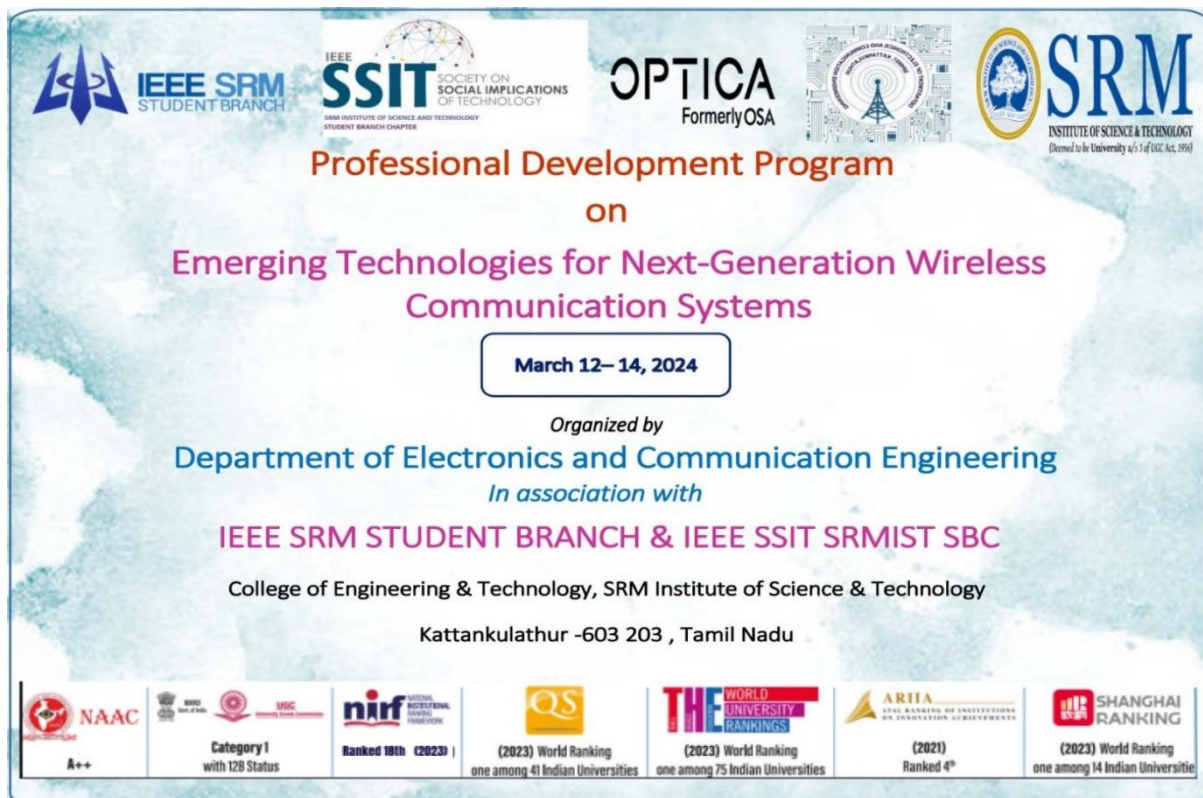
*Organized by*
**Department of Electronics and Communication Engineering**
*In association with*
**IEEE SRM STUDENT BRANCH & IEEE SSIT SRMIST SBC**

**College of Engineering & Technology, SRM Institute of Science & Technology
Kattankulathur -603 203, Tamil Nadu**

# EVENT REPORT - PDP- ETNGWCS 2024

Date: March 12, 2024 to March 14, 2024

Location: JC Bose hall, 12th floor Tech Park, SRMIST.

## Executive Summary

Emerging Technologies for Next-Generation Wireless Communication Systems is being conducted as professional development programme which was held on March 12- March 14, 2024, at the JC Bose hall, 12th floor Tech Park, SRMIST, brought together industry experts and stakeholders to discuss the current landscape and future prospects of 5G deployment. This report summarizes the key insights shared by the five distinguished speakers who delivered informative speeches on various 5G deployment and development aspects.

## Introduction

The PDP aimed to provide attendees with a comprehensive understanding of the opportunities and challenges associated with the rollout of 5G technology. With the proliferation of IoT devices, wireless networks, Introduction to SRD and GNU radios, Evolution of MIMO for 6G, Open RAN and cloud RAN for 5G, 5G deployment has emerged as a critical enabler of technological advancement.

## Event Overview

The PDP commenced at 9:00 AM and lasted until 5:00 PM for 3 continuous days, featuring 11 speakers who shared their expertise on different dimensions of 5G deployment and next-generation overview of 5G.

## Agenda

**Welcome Address: Dr Shanti Prince, HOD & Professor, ECE.**

**PDP overview: Dr T. Deepa, Associate Professor, ECE.**

**Inauguration Speech: Dr Pradheep Balaji R, Global Delivery Manager, Nokia Networks.**

Speaker: Mr. Raghunath Narasimhan Solutions Architect Nokia Solutions

Speaker: Mr. Pandidurai.N Principal Engineer, Tenet Technetronics , Bangalore

Speaker: Mr. Dhivagar B Principal Research Engineer, Center of Excellence in Wireless Technology.

Speaker: Mr. Veera Raghavan Seshadri Solutions Architect - Nokia Network and Solutions, Chennai.

Speaker: Ms. T R Ramya Principal Research Engineer, Center of Excellence in Wireless Technology.

Speaker: Ms. Priyanka Dey Lead Research Engineer, Center of Excellence in Wireless Technology,

Speaker: Mr.Jeeva Keshav S, Software Head, Phd Scholar(PMRF), IITM

Speaker: Mr. Lakshman, System Architect & co-founder and CEO of the start-up Reio Systems

Speaker: Dr.R.Amutha, Professor SSN College of Engineering

Speaker: Dr.P.Vijayakumar, Professor, ECE, SRMIST, Kattankulathur

**Key Highlights**

- Dr. Pradheep Balaji R from NOKIA Networks was invited to share insights on 5G deployment.
- Mr. Raghunath Narasimhan, Solutions Architect at Nokia Solutions, delivered a keynote on "5G Wireless Communication – Benefits, Challenges & Opportunities."
- Mr. Pandidurai.N, Principal Engineer at Tenet Technetronics, presented on "Introduction to SDR and GNU Radio."
- End for Day 1 of the PDP event.
- A distinguished lecture highlighting the "Evolution of MIMO for 6G" delivered by Mr. Dhivagar B.
- An in-depth exploration of "Open RAN and Cloud RAN 5G" presented by Mr. Veera Raghavan Seshadri.
- Engaging discussion on "Emerging Technologies for 5G and Beyond" facilitated by Ms. T R Ramya.
- An insightful session providing an overview of "Reconfigurable Intelligent Surfaces" conducted by Ms. Priyanka Dey.
- End of Day 2 of the PDP event.
- A speech on "5g testbed overview, by Mr.Jeeva Keshav S and Mr. Lakshman.
- An insightful session on "Machine learning for 5G/B5G Wireless Communication: Potential and Limitations" by Dr. R Amutha.
- "LabVIEW based SDR programming and full duplex cognitive radio by Dr. P. VijayKumar.

## Day 1 – 12.03.2024



**INAUGURATION FUNCTION HELD ON 12TH MARCH 2024**

**WELCOME ADDRESS BY DR. SHANTHI PRINCE, PROFESSOR & HOD, DEPT. OF ECE, SRMIST**



**ABOUT PDP OVERVIEW : DR. T. DEEPA, ASSOCIATE PROFESSOR , CONVENER, ETNGWC – 2024, DEPT. OF ECE, SRMIST**

**CHIEF GUEST & SPEAKER DR. PRADHEEP BALAJI R FROM NOKIA WAS INVITED TO SHARE INSIGHTS ON 5G DEPLOYMENT**



**40 PARTICIPANTS OF FACULTY, SCHOLARS, AND STUDENTS COMMUNITIES AT SRMIST**
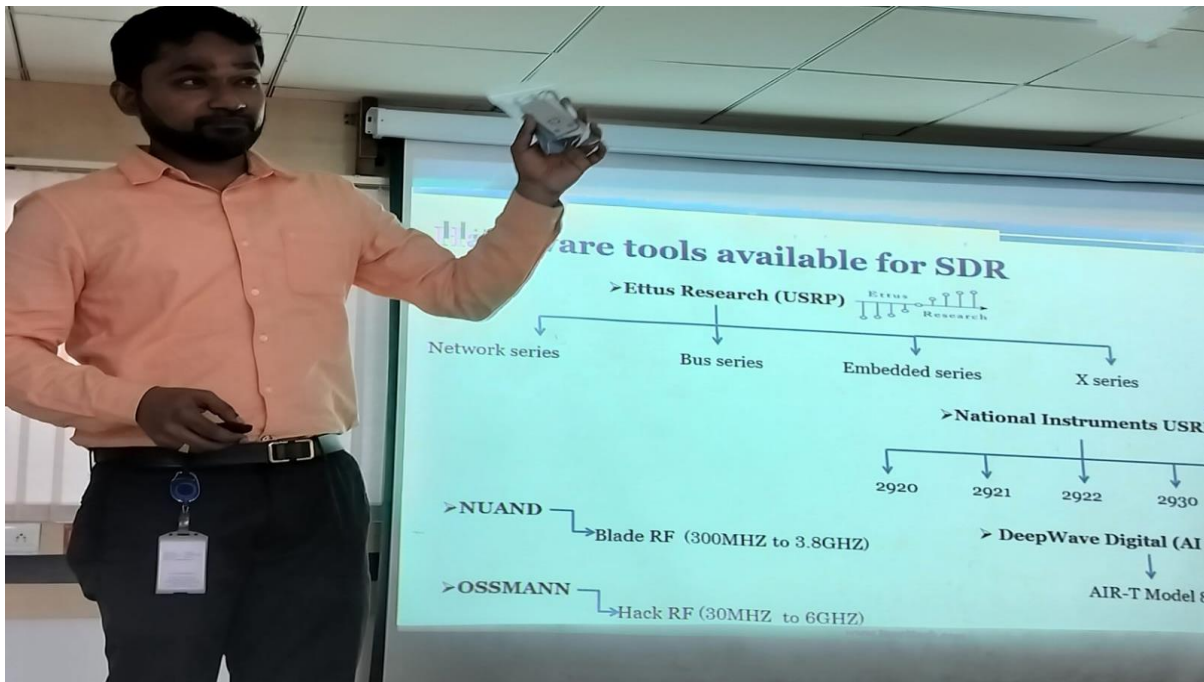
**THANKING MESSAGE BY DR. K. VIJAYAN, ASSOCIATE PROFESSOR, CO-CONVENER, ETNGWC – 2024, DEPT. OF ECE, SRMIST**



**SPEAKER MR. RAGHUNATH NARASIMHAN, SOLUTIONS ARCHITECT AT NOKIA SOLUTIONS, DELIVERED A KEYNOTE ON "5G WIRELESS COMMUNICATION – BENEFITS, CHALLENGES & OPPORTUNITIES."**

**SPEAKER MR. PANDIDURAI.N, PRINCIPAL ENGINEER AT TENET TECHNETRONICS WAS HONORED**

SPEAKER MR. PANDIDURAI.N, PRINCIPAL ENGINEER AT TENET TECHNETRONICS, PRESENTED ON "INTRODUCTION TO SDR AND GNU RADIO"



END OF 12TH MARCH 2024 FACULTY & STUDENTS COMMUNITIES GATHERED WITH SPEAKERS

- A distinguished lecture highlighting the "Evolution of MIMO for 6G" delivered by Mr. Dhivagar B.

**SPEAKER Mr. Veera Raghavan Seshadri WAS HONORED**
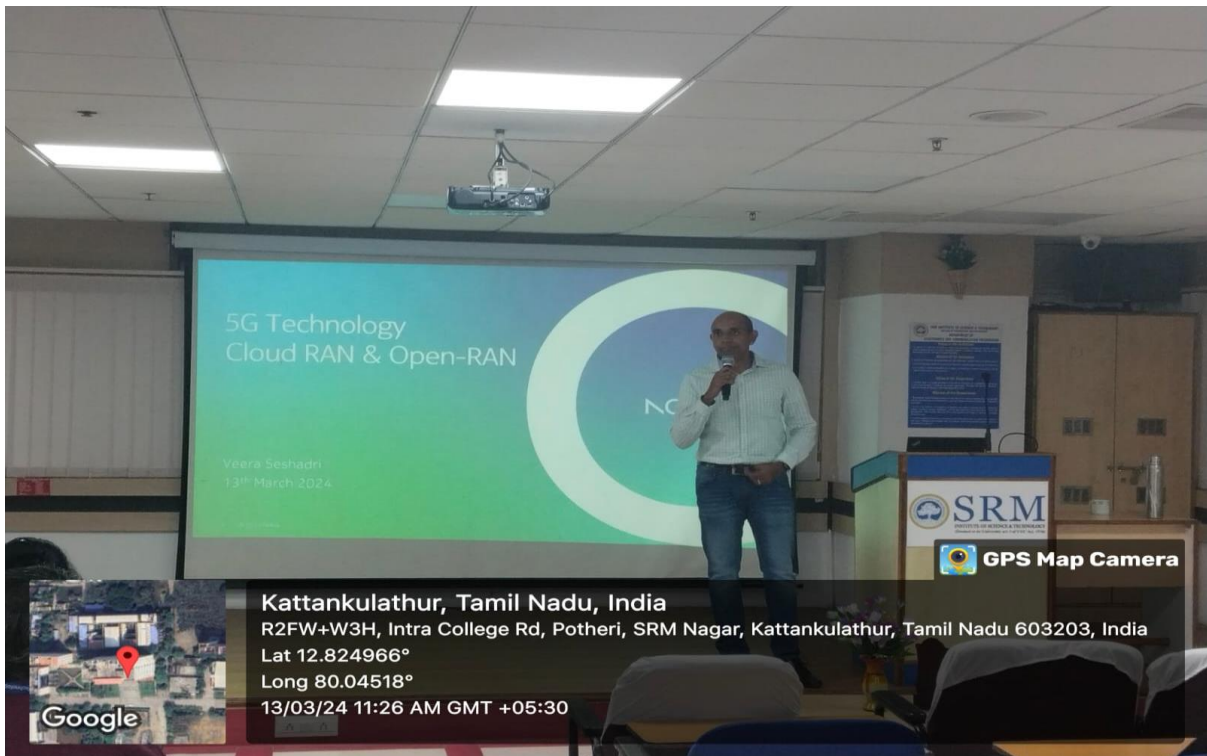


**AN IN-DEPTH EXPLORATION OF "OPEN RAN AND CLOUD RAN 5G" PRESENTED BY MR. VEERA RAGHAVAN SESHADRI.**

**ENGAGING DISCUSSION ON "EMERGING TECHNOLOGIES FOR 5G AND BEYOND" FACILITATED BY MS. T R RAMYA, IIT MADRAS.**



**AN INSIGHTFUL SESSION PROVIDING AN OVERVIEW OF "RECONFIGURABLE INTELLIGENT SURFACES" CONDUCTED BY MS. PRIYANKA DEY.**

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**END OF 13$^{TH}$ MARCH 2024 FACULTY & STUDENTS COMMUNITIES GATHERED WITH SPEAKERS**

- A speech on "5G testbed overview, by Mr.Jeeva Keshav S and Mr. Lakshman from IIT Madras .

- An insightful session on "Machine learning for 5G/B5G Wireless Communication: Potential and Limitations" by Dr. R. Amutha.

- "LabVIEW based SDR programming and full duplex cognitive radio by Dr. P. VijayKumar.

**A SPEECH ON "5G TESTBED OVERVIEW, BY MR.JEEVA KESHAV S AND MR. LAKSHMAN.**



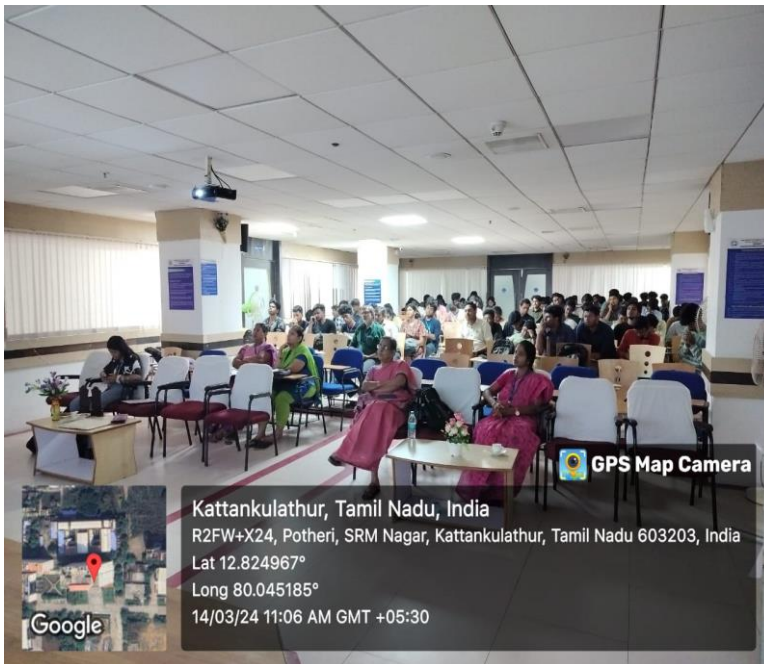**"5G TESTBED OVERVIEW, BY MR.JEEVA KESHAV, IIT MADRAS**

"5G TESTBED OVERVIEW, BY MR. LAKSHMAN, IIT MADRAS (SRM ALUMINI).

An insightful session on "Machine learning for 5G/B5G Wireless Communication: Potential and Limitations" by Dr. R. Amutha



"LABVIEW BASED SDR PROGRAMMING AND FULL DUPLEX COGNITIVE RADIO BY DR. P. VIJAYKUMAR, PROF., ECE, SRMIST

**END OF 14<sup>TH</sup> MARCH 2024 FACULTY & STUDENTS COMMUNITIES GATHERED WITH SPEAKERS**

## Certificate Distribution:

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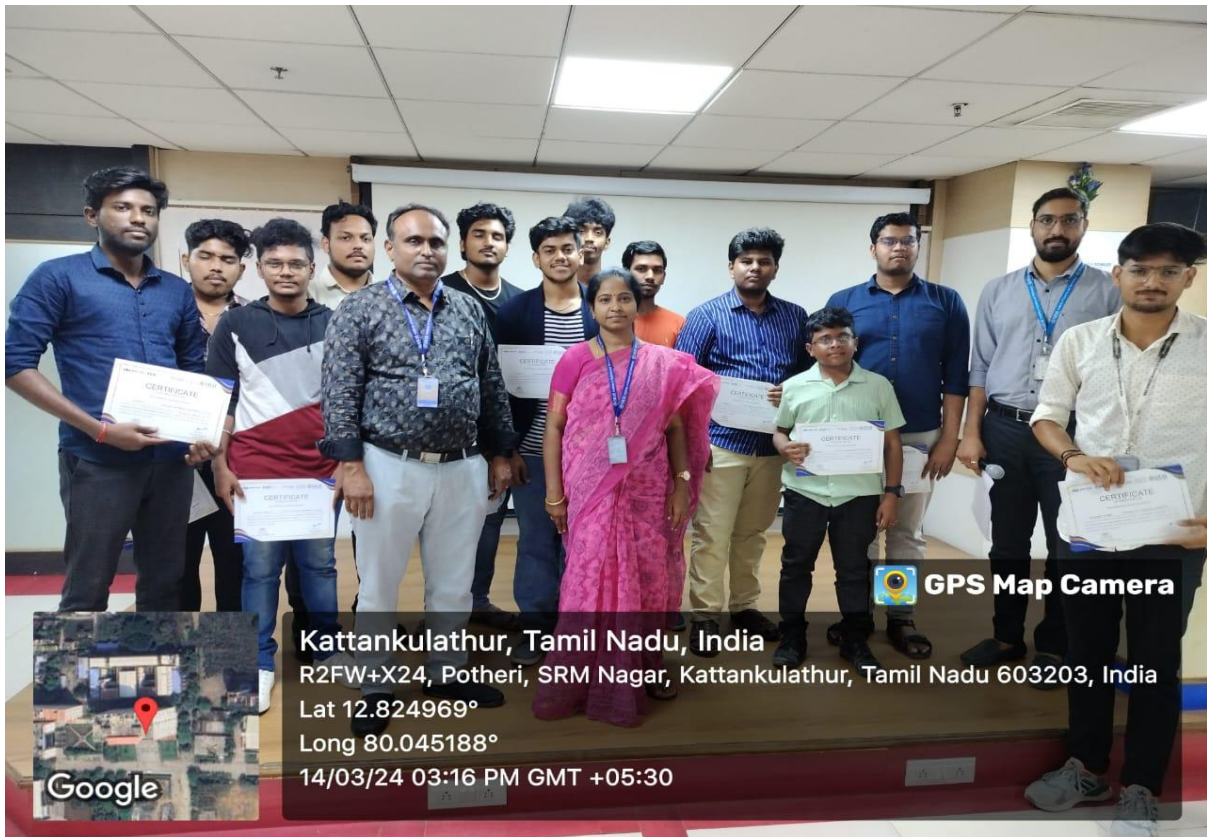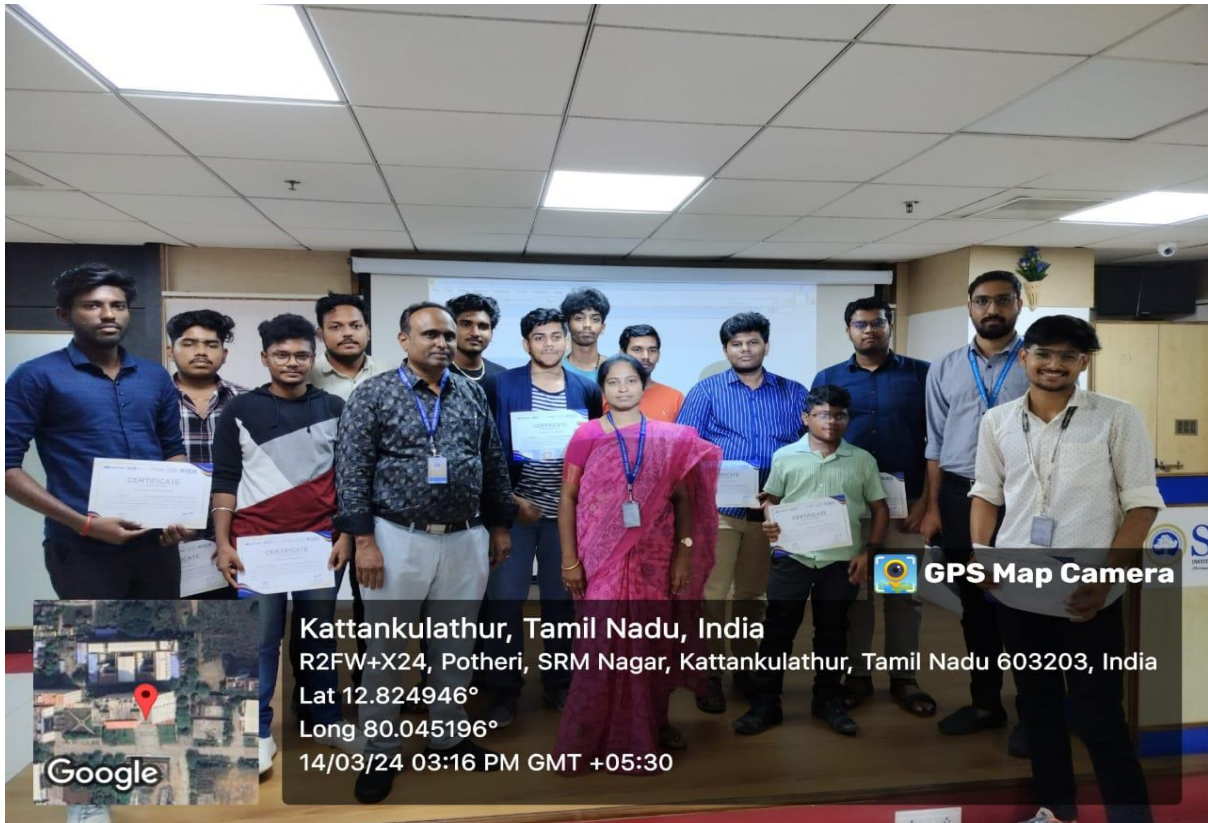
**IEEE SSIT VOLUNTEERS WERE APPRECIATED DURING THE PROGRAM**

## Conclusion

The Professional Development Programme on the topic of next-generation wireless, Technical talks provided a platform for constructive dialogue and knowledge sharing among speakers invested in the future of telecommunications. The event underscored the transformative potential of 5G technology and highlighted the importance of collaboration and innovation in realising its full benefits.

## Acknowledgements

We extend our gratitude to all the speakers, attendees, sponsor – TAMILNADU GRAMA BANK (TNGB), and volunteers who contributed to the success of the three-day professional development program.