

FDP on

Next Generation Communications: Use Cases and Challenges

Organized by:
**Department of Electronics and
Communication Engineering**
**M.S. Ramaiah University of Applied
Sciences, Peenya, *Bangalore-58***

From 27th January to 31st January 2025

Last Date of Registration: 22nd January 2025

**Registration
Free**



Objective of the FDP:

The FDP aims to provide insights on different cutting-edge technologies revolutionizing how we connect and communicate. It enables a basic understanding on the evolution of communication technologies and educates the transformative solutions to next-generation communication solutions such as 5G and 6G technologies. FDP aims to provide use cases such as, applications of machine learning pillars in 5G systems, Digital Video and Image Coding for Next Generation Communication Applications, DSP builder AI, RADAR and wireless and wireline applications, Overview of FPGA for RF applications and processor based Embedded System Design are also targeted in this FDP. Through industrial experts and academic experts, the FDP will be able to connect the industrial and prototype communication solutions with the research state-of-the-art solutions. It will be able to ensure exchange of ideas between industry and academia, through discussions on different Use Cases and Challenges in Next Generation Communication solutions.

Target Audience:

PG students, Ph.D scholars, Researchers, Faculty Members and Industrial professional

Time – 10:00 AM to 5:00 PM

***Venue – A206, M.S. Ramaiah University of Applied Sciences,
Ramaiah Technical Ccampus, #470-P, Peenya Industrial
Area, 4th Phase, Bangalore-58***



About the University:

Ramaiah University of Applied Sciences (RUAS) a top private University in Bangalore, Karnataka, was founded in December 2013, under the Karnataka University Act. The creation of RUAS brought together several well-established educational institutions of the Ramaiah Group, reorienting them to a changing present and an unpredictable future. The academic programmes of RUAS focus on student centric higher education. Students experience an integrated approach to academia, research, training, real life problem solving and entrepreneurship. RUAS is a comprehensive University with 13 Faculties / Schools / Constituent Colleges. The University offers undergraduate, postgraduate and doctoral programs in Engineering and Technology, Mathematical and Physical Sciences, Art and Design, Management and Commerce, Hospitality Management and Catering Technology, Pharmacy, Dental Sciences, Life and Allied Health Sciences and Medical and Nursing Sciences. RUAS aspires to be the premier university of choice in Asia for student-centric professional education and service with a strong focus on applied research whilst maintaining the highest academic and ethical standards in a creative and innovative environment.

About ECE Department:

The Department of Electronics and Communication Engineering deals primarily with the design, development, and simulation of electronic and communication sub-systems / systems. The curriculum ensures that students develop a strong foundation in the theoretical concepts of the discipline. This learning is complemented with rigorous practical training in the design and development of devices for various applications. In addition to common core subjects, the Department offers a range of electives that help students sharpen their technical expertise and keep them up-to-date with innovations in the field of electronics and communication. A multidisciplinary approach is promoted and students are encouraged to collaborate with the departments of Computer Science, Mechanical Engineering, Electrical Engineering, Aerospace Engineering and Civil Engineering on research projects. PG and Ph.D students also undertake research projects at the University's Techno Centre that give them a competitive edge over their peers. Additionally, students are pushed to take up value added courses, internships, and soft skills programs to contribute to their employability. The Department has well-qualified and technically proficient faculty members with rich academic, industrial, and research experience. As dedicated teaching professionals, they channel their efforts to ensure the academic and professional success of all students. The outcome-based curriculum helps students to develop critical thinking abilities and imbibe relevant practical skills for a smooth transition from academics to real-life work environments.

Session Plan

Day	Date /Time	Topic	Speaker
1	27-1-25 (Monday) 10.30 AM – 11.00 AM	Inauguration	Dr. Punithavathi D, HoD ECE Dept.
1	27-1-25 (Monday) 11.00 AM – 1.00 PM	Perspective on Key Technologies - Drives Industry 4.0	Dr. Kumeresh K., Deputy GM, Bharat Electronics Limited
	27-1-25 (Monday) 2.00 PM – 5.00 PM	Electromagnetic Simulation Software Antenna Simulation Using CST	Dr. Sushma, EMAG Simulation Solution Specialist, Conceptia Software Technologies
2	28-1-25 (Tuesday) 10.00 AM – 1.00 PM	Use cases and applications of machine learning pillars in 5G systems	Dr. Pallaviram Sure, Professor, ECE
	28-1-25 (Tuesday) 2.00 PM – 5.00 PM	Hands on Training / Demo	
3	29-1-25 (Wednesday) 10.00 AM – 1.00 PM	Digital Video and Image Coding for Next Generation Communication Applications	Dr. Shreyanka S. Assistant Professor, ECE
	29-1-25 (Wednesday) 2.00 PM – 5.00 PM	Hands on Training / Demo	
4	30-1-25 (Thursday) 10.00 AM – 11.00 AM	Introduction to DSP builder AI, RADAR and wireless and wire line applications	Mr. Padmanabhan K. Software Enabling and Optimization Engineer, CEG, Intel
	30-1-25 (Thursday) 11.15 AM – 01.00 PM	Intel open VINO toolkit and FPGA AI Suite for Embedded or Edge applications	
	30-1-25 (Thursday) 2.00 PM – 5.00 PM	Hands on Training / Demo	
5	31-1-25 (Friday) 10.00 AM – 11.00 AM	Overview of Agilex 9 FPGA targeted for Direct RF applications	Mr. Padmanabhan K. Software Enabling and Optimization Engineer, CEG, Intel
	31-1-25 (Friday) 11.15 AM – 01.00 PM	Nios V softcore processor based Embedded System Design	
	31-1-25 (Friday) 2.00 PM – 5.00 PM	Hands on Training / Demo	

Note: Tea break will be provided from 11.00 AM to 11:15 AM and 03.30 PM to 03.45 PM.

Registration for FDP on Next Generation Communications: Use Cases and Challenges



**5 Days attendance is compulsory for certificate.
Limited Seats only.**

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