

ONE WEEK HYBRID FACULTY DEVELOPMENT PROGRAM

On **ADVANCE TECHNIQUES IN WIRELESS COMMUNICATION**

July 13-20, 2023



Organized by

Department of Electronics and Communication Engineering

Jaypee Institute of Information Technology
A-10, Sector-62, Noida,
UP-201309, INDIA

PROGRAM COORDINATORS

Dr. Samriti Kalia

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Dr. Gaurav Khanna

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Last Date of Registration: July 12, 2023.

Fees for external participants: INR 500
(<https://payments.cashfree.com/forms/FDPEC>)

JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY

Jaypee Institute of Information Technology (JIIT), Noida, was established in the year 2001 and has been declared as a "Deemed to be University" under section 3 of UGC Act 1956. The institute is AICTE approved, NIRF (MHRD) ranked and NAAC accredited for excellence in teaching and research. JIIT's state-of-the-art, environmentally conditioned campus comprises of smart buildings with Wi-Fi connectivity. In addition, well-equipped modern laboratories and intellectually stocked Learning Resource Centre with more than 64000 books and 3.5 lacs e-Resources provide a pleasant and stimulating ambience. For more information about JIIT, please visit the website <http://www.jiit.ac.in>.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Electronics and Communication Engineering (ECE) Department at JIIT was established in the year 2002. The department of ECE runs three full time 4-year B. Tech. degree program at UG level. The department also offers 5-year Integrated degree program in ECE and PG degree programs with specialization in wireless communication, machine learning and microelectronics. The department is having a team of highly motivated faculty members having extensive experience in industry, research as well as teaching. At present, there are around 40 research scholars involved in thrust areas such as VLSI design, 4G & 5G Technologies, machine learning, image processing, DSP architectures and many more.

FACULTY DEVELOPMENT PROGRAM

The theme of this FDP is to introduce, innovate and explore the recent trends of wireless communication, especially 5G and 6G, which are poised to revolutionize the world of connectivity. Integrating AI with wireless communication is actually paving the way for future wireless network transmission framework. Thus, the goal of this program is to enhance technical skills of our faculty members and research scholars, thereby motivating them to envision the next-generation wireless networks and to create a ubiquitous and refined digital world.

PROGRAM HIGHLIGHTS

1. Next Generation of Wireless Technology.
2. Enabling Cooperation among multiagent IoT systems.
3. RF Methodologies in Wireless Communication for Defense and Space Applications: Challenges and Opportunities.
4. Next-Generation Wireless Communication Networks: Integrated Satellite, Aerial, and Terrestrial Solutions.
5. Spectrum handoff techniques in 5G Cognitive Radio networks.
6. Big Data meets 5G.
7. Wireless Communication in Internet of Things.
8. Integrating AI in wireless communication using MATLAB.
9. Developing and Deploying wireless systems on FPGAs/SoCs.

TAKEAWAYS FROM THE FDP

1. The participants would be able to conduct research-based activities to build up strong fundamentals in wireless communication domain.
2. The faculty members can relook experiments, assignments, projects in wireless domain to recognize the gaps in attaining learning outcomes as per Bloom's Taxonomy.
3. The faculty members can design project-based learning activities to strengthen the courses in wireless communication.

WHO SHOULD PARTICIPATE

The program is open to all the faculty members/scientists/engineers working in educational institutes/industries/ R&D organizations.

HOW TO REGISTER

The applicants are requested to either fill the Google form: <https://tinyurl.com/y65yf27r>, or scan the QR code.



Scan for registration

NOTE:

1. E-certificate will be issued only to the participants having >80% attendance and marks in Quiz.
2. Google meet link and other instructions will be shared through e-mail to all the registered participants.
3. There is no participation fee for internal participants.

DISTINGUISHED SPEAKERS



Dr. Preetam Kumar
Professor,
IIT Patna



Dr. Arun Prakash
Associate Professor,
MNNIT Allahabad



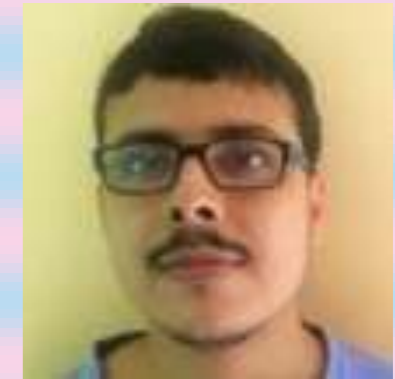
Dr. Anand Agrawal
Assistant Professor,
IIIT Kota



Dr. Satendra Kumar
Assistant Professor,
IIT Patna



Dr. Praful Pai
Senior Engineer,
MathWorks India



Mr. Pratyush Roy
Engineer, Education Team,
MathWorks India



Dr. Lely
Senior Lecturer,
Universitas Tarumanagara,
Indonesia



Mr. Bholu Kumar Sahay
Researcher,
National Yang Ming Chiao
Tung University, Taiwan



Dr. Tony
Lecturer,
Universitas Tarumanagara,
Indonesia



Dr. Vinay B. Narayane
Manager-RF Design
Paras Anti-Drone
Technologies Pvt. Ltd



Dr. Sachin Agarwal
AI Head, Sony Research
India Private Limited

FDP Schedule

One-Week Hybrid Faculty Development Program

On

Advance Techniques in Wireless Communication

Department of Electronics & Communication Engineering

Jaypee Institute of Information Technology, Noida-62

July 13–20, 2023

Day 1: 13 July, 2023 (Thursday)

9:30 - 10:00 AM	Inauguration Ceremony
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<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 11:20 AM	Dr. Sachin Agrawal (Head AI, Sony Research India Private Limited) Talk Title: 6G with Artificial Intelligence for Metaverse (Tentative)
11:20 AM – 11:30 AM	<i>Short Break</i>
11:30 AM – 12:50 PM	Dr. Anand Agrawal (Assistant Professor, Department of ECE, IIIT Kota) Talk Title: Next Generation of Wireless Technology (Tentative)

Day 2: 14 July, 2023 (Friday)

<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 11:20 AM	Dr. Arun Prakash (Associate Prof., Department of ECE, MNNIT Allahabad, Prayagraj) Talk Title: Spectrum Handoff Techniques in 5G Cognitive Radio Networks (Tentative)
11:20 AM – 11:30 AM	<i>Short Break</i>
11:30 AM – 12:50 PM	Prof. Preetam Kumar (Department of Electrical Engineering, IIT Patna) Talk Title: 5G: Challenges and Enabling Technologies (Tentative)

Day 3: 15 July, 2023 (Saturday)

<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 11:20 AM	Dr. Lely (Senior Lecturer, Universitas Tarumanagara, Indonesia) Talk Title: Big Data meets 5G (Tentative)
11:20 AM – 11:30 AM	<i>Short Break</i>
11:30 AM – 12:50 PM	Dr Tony (Senior Lecturer, Universitas Tarumanagara, Indonesia) Talk Title: Wireless Communication in Internet of Things (Tentative)

Day 4: 17 July, 2023 (Monday)

<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 11:20 AM	Mr. Pratyush Roy (Engineer, Education Team, MathWorks) Talk Title: Integrating AI in Wireless Communications, Hands-On with MATLAB (Tentative)
11:20 AM – 11:45 AM	<i>High Tea</i>
11:45 AM – 1:00 PM	Mr. Pratyush Roy (Engineer, Education Team, MathWorks) Talk Title: Integrating AI in Wireless Communications, Hands-On with MATLAB (Tentative)

Day 5: 18 July, 2023 (Tuesday)

<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 11:20 AM	Dr. Praful Pai (Manager, Signal Processing and Communications, MathWorks) Talk Title: Developing and Deploying Wireless Systems on FPGAs/SoCs, Hands-On with MATLAB (Tentative)
11:20 AM – 11:45 AM	<i>High Tea</i>
11:45 AM – 1:00 PM	Mr. Bhola Kumar Sahay (Researcher, National Yang Ming Chiao Tung University, Taiwan) Talk Title: Next-Generation Wireless Communication Networks: Integrated Satellite, Aerial, and Terrestrial Solutions (Tentative)

Day 6: 19 July, 2023 (Wednesday)

<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 11:20 AM	Dr. Vinay B. Narayane , (Manager-RF Design), Paras Anti-Drone Technologies Pvt. Ltd. Talk Title: RF Methodologies in Wireless Communication for Defence and Space Applications: Challenges and Opportunities (Tentative)
11:20 AM – 11:30 AM	<i>Short Break</i>
11:30 AM – 12:50 PM	Dr. Satendra Kumar (Department of CSE, IIT Patna) Talk Title: Enabling Cooperation among multiagent IoT systems (Tentative)

Day 7: 20 July, 2023 (Thursday)

<i>Session Time</i>	<i>Session Resource Person</i>
10:00 AM – 10:30 AM	Quiz
10:30 AM – 11:00 AM	Valedictory Speech and Vote of Thanks

Dr. Samriti Kalia and Dr. Gaurav Khanna
Department of ECE, IIIT-62, Noida, U.P.
(FDP Coordinators)

JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA

(Declared Deemed to be University under Section 3 of UGC Act)

CERTIFICATE OF APPRECIATION

This Certificate is presented to *Dr. Tony* of **Universitas Tarumanagara, Indonesia** in recognition and contribution as ‘**Guest Speaker**’ in the one-week hybrid faculty development program on “**Advance Techniques in Wireless Communication**” organized by the Department of Electronics and Communication Engineering, Jaypee Institute of Information Technology, Noida from July 13, 2023 to July 20, 2023.



Dr. Gaurav Khanna
Coordinator



Dr. Samriti Kalia
Coordinator



Prof. Shweta Srivastava
Dean (A&R)-II & HOD (ECE)