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Title of the ATAL Programme:	Intelligent Connectivity: AI-Driven Evolution in Next-Gen Communication Networks
Application Number:	1749200927
Organized by:	Department of Electronics & Telecommunication Engineering, St.Francis Institute of Technology,Borivali (west),Mumbai
Program Type:	ATAL Six Days Online Faculty Development Programme
Academic Year:	2025-2026
Duration of the FDP:	03-11-2025 to 8-11-2025 (6 Days)
Time of the FDP:	Day-1: (06:00 pm to 09:30 pm) Day-2 to Day-5: (06:00 pm to 09:00 pm) Day-6: (02:00 pm to 08:00 pm)
Mode:	Online

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Key Outcome / Objective:	● Explore next-generation communication technologies, including deep learning, cognitive radio, and advanced optimization techniques in wireless systems. ● Enhance cybersecurity awareness by addressing AI-driven threats and mitigation strategies in modern communication networks. ● Bridge academia and industry through expert sessions and practical exposure, fostering collaboration and knowledge exchange between researchers and industry professionals for advancing intelligent connectivity solutions. ● Gain in-depth knowledge of next-generation communication technologies such as deep learning, cognitive radio, and advanced wireless optimization. ● Develop expertise in cybersecurity, understanding AI-driven threats, intrusion detection, and mitigation strategies in modern networks. ● Learn about encryption techniques, secure communication protocols, and AI applications in cybersecurity for data protection. ● Enhance research skills through expert-led sessions, hands-on workshops, and practical exposure to real-world scenarios. ● Bridge the gap between academia and industry through industrial visits, collaborations, and interactive discussions. ● Foster innovation and interdisciplinary research in communication, cybersecurity, and emerging technologies. ● Strengthen professional networks with industry experts, researchers, and academicians. ● Improve critical thinking and problem-solving skills by addressing real-world challenges in modern communication systems. ● Acquire hands-on experience with IoT protocols and sensors and actuators. ● Develop skills in programming languages used in IoT and embedded systems. ● Explore applications of IoT in various domains. ● Develop curriculum and teaching materials for IoT and embedded systems courses. ● Enhanced faculty expertise in IoT and embedded systems. ● Identify research gaps and opportunities in IoT and embedded systems. ● Improved industry-academia collaboration and collaboration with industry partners for joint research and development.	

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Benefits in terms of learning/skills/knowledge:	• Enhances understanding of how AI integrates with 5G, 6G, and IoT for smarter, adaptive communication systems. • Develops skills in applying AI and machine learning for network optimization and automation. • Builds knowledge of emerging technologies such as edge computing, cloud networking, and data analytics. • Strengthens problem-solving and analytical abilities for managing complex network environments. • Promotes hands-on experience with tools and simulations for intelligent network design. • Increases awareness of network security, privacy, and energy-efficient communication solutions. • Prepares learners for advanced research or careers in AI-driven telecommunications and digital innovation
About the Event:	The event “Intelligent Connectivity: AI-Driven Evolution in Next-Gen Communication Networks” explores the integration of Artificial Intelligence with emerging technologies such as 5G, 6G, and IoT to create smarter, faster, and more adaptive communication systems. It highlights how AI enhances network efficiency, automation, and security while enabling intelligent decision-making in next-generation networks. The event provides a platform for students, researchers, and professionals to gain insights into cutting-edge advancements, exchange innovative ideas, and understand the pivotal role of AI in shaping the future of intelligent connectivity.

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About the Speakers:	Session-1 (Day-1):Dr. Vimal Bhatia, Prof., Dept of EE, IIT Indore Topic: Laying the Groundwork: AI-Driven Evolution in Next-Gen Communication Session-2 (Day-1): Dr. Vimal Bhatia, Prof., Dept of EE, IIT Indore Topic: Emerging Network Architectures: 6G and IoT Convergence Session-3 (Day-2): Dr. Kuntal Deka A.P, Dept. of EE, IIT , Guwahati Topic: Deep unfolding and its Applications in Wireless Communications Session-4 (Day-2): Dr. Kuntal Deka A.P, Dept. of EE, IIT , Guwahati Topic:Optimization Algorithms Empowering AI in Future Communication Networks Session-5 (Day-3): Dr. Keshav Singh, Assoc.Prof, NSYSU, Taiwan Topic: 5G Enablers: From NOMA and FullDuplex Radios to AI-Driven Wireless Systems Session-6 (Day-3): Dr. Keshav Singh, Assoc.Prof, NSYSU, Taiwan Topic: Full-Duplex Radios and AI-Optimized Wireless Infrastructure Session-7 (Day-4): Dr. Vidya Bhaskar Shukla currently pursuing postdoctoral research at the University of Oulu, Finland. Topic: Signal Processing for Millimeter Wave Hybrid MIMO Systems Session-8 (Day-4): Dr. Vidya Bhaskar Shukla currently pursuing postdoctoral research at the University of Oulu, Finland. Topic: Near-Field Channel Estimation for 6G XL-MIMO Systems	

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	Session-9 (Day-5): Dr. Shravani Shahapure Associate Director, Deloitte,Mumbai Topic: Securing AI-Driven Networks:Challenges and Solutions in Modern Communication Infrastructure Session-10 (Day-5): Dr. Shravani Shahapure Associate Director, Deloitte,Mumbai Topic: Enhancing 5G Security: Exploring Quantum-Safe Cryptography Solutions for the Next Generation of Comm. Networks Session-11 (Day-6): Ms. Chetna Bhatnagar G.M., IT Ops, Yotta Data Center, Mumbai Topic: AI and Cloud Synergy: Powering Next-Gen Communication Infrastructures Session-12 (Day-6): Mr. Sivaramakrishnan Iyer Sr. Manager IT Ops, Yotta DataCenter, Mumbai Topic: AI and Cloud in Action: Building Smart Communication Networks Session-13 (Day-6): Mr. Harpreet Singh Chaman Head, Learning & Development Croma, Mumbai Topic: Stress Management in the Digital Age: Techniques for Mental Well-Being
Co-ordinator:	Dr. Kevin Noronha, Professor and Head - Department of Electronics & Telecommunication Engineering, St. Francis Institute of Technology, Borivali (West), Mumbai
Co-coordinator:	Ms Shilpa Chaman, Assistant Professor - EXTC Dept., St. Francis Institute of Technology, Borivali (West), Mumbai
No. of Participants:	141

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Platform:	Microsoft Teams
SFIT Youtube Video:	https://www.youtube.com/playlist?list=PLcwZfFfeonpUFs1MqK-Z7Io315u6yXPYq
Video URL:	6.42 Mins_ ATAL OFDP Highlights Video: https://drive.google.com/file/d/1Y0qENJePQjkl7ffKcWu7xWqtfyKe6KeZ/view?usp=sharing 23.45 Mins_ ATAL OFDP Video with Feedback: https://drive.google.com/file/d/1JbSdNuzVOCBwiVRpflLUfOFx0y3ZiksM/view?usp=sharing

Report on ATAL Six Days Online Faculty Development Program on “**Intelligent Connectivity: AI-Driven Evolution in Next-Gen Communication Networks**” organized by the Department of Electronics & Telecommunication Engineering (EXTC), St. Francis Institute of Technology, Borivali (West), Mumbai, held from 3rd November 2025 to 8th November, 2025



The screenshot shows a Google Drive interface with a folder named 'Session-1, Day-1, speaker intro slide.png'. The main slide displayed is for the 'ATAL Six Days Online Faculty Development Program (FDP)' at St. Francis Institute of Technology. The slide includes the following information:

- Institution:** St. Francis Institute of Technology (Engineering College), An Autonomous Institute, Affiliated to University of Mumbai. Accredited by NAAC A+, CMPN, EXTC, INFT NBA, and ISO 9001:2015.
- Program Title:** ATAL Six Days Online Faculty Development Program (FDP): "Intelligent Connectivity: AI-Driven Evolution in Next-Gen Communication Networks".
- Date:** 3rd Nov 2025 to 8th Nov 2025.
- Application No:** 1749200927.
- Organized by:** Department of Electronics and Telecommunication Engineering.
- Day-01 II Date:** 3rd Nov 2025 II.
- Session -1 (6:30pm to 8:00pm):** Laying the Groundwork: AI-Driven Evolution in Next Gen Communication.
- Speaker:** Dr. Vimal Bhatia, Professor, Dept of EE, IIT Indore.



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FACULTY DEVELOPMENT PROGRAMME ON :

“Intelligent Connectivity: AI-Driven Evolution in Next-Gen Communication Networks”

Date 3rd Nov 2025 to 8th Nov 2025

Application No: 1749200927

Organized by:
Department of Electronics and
Telecommunication Engineering



Day-01|| Date:3rd Nov 2025||



Dr. Vimal Bhatia
Professor, Dept of EE, IIT Indore.

Session -2
(8:00-9:30 pm)
Emerging Network
Architectures:
6G and IoT Convergence





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Date : 3rd Nov 2025 to 8th Nov 2025

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Department of Electronics and
Telecommunication Engineering



Day-02 || Date:4th Nov 2025 ||



Dr. Kuntal Deka
A.P. Dept. of EE, IIT , Guwahati

Session -3
6:00pm to 7:30pm
Deep unfolding and its
Applications in
Wireless Communications



Participants

Type a name

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Presenters (4)

- MS MEENAKSHI SURVE
Organiser
- JD Jyoti Deore
Organiser
- RY RAMJEE YADAV
Organiser
- SC SHILPA CHAMAN
Organiser

Attendees (26)

- AS Ashwini Sankhe (External)
- DS Davinder Singh (External)
- DS Dr Sanjay Patil (Unverified)
- DN Dr. Najm Aamer (Unverified)
- DR Dr. Nitika Rai (Unverified)
- DS Dr. Savita Jadhav (Unverified)

Mute all

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FACULTY DEVELOPMENT PROGRAMME ON

“Intelligent Connectivity: AI-Driven Evolution in Next-Gen Communication Networks”

Date : 3rd Nov 2025 to 8th Nov 2025

Application No: 1749200927

Organized by:
Department of Electronics and
Telecommunication Engineering



Day-02 || Date: 4th Nov 2025 ||



Dr. Kuntal Deka
 A.P, Dept. of EE, IIT , Guwahati

Session - 4

7:45 pm to 9 pm

Deep unfolding and its
Applications in
Wireless Communications



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Organized by:
Department of Electronics and
Telecommunication Engineering



Day-03 || Date: 5th Nov 2025 ||



Dr. Keshav Singh
 Assoc.Prof, NSYSU, Taiwan

Session -5
(6:00–7:30 pm)

5G Enablers: From NOMA and
Full-Duplex Radios to AI-Driven
Wireless Systems





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Day 4 Session7 - Google Drive

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Application No: 1749200927

Organized by:

Department of Electronics and Telecommunication Engineering

Day-04 II Date: 6th Nov 2025 II



Dr. Vidya Bhasker Shukla
Post Doctoral Researcher, University of OULU, Finland

Session -7
(6:00-7:30 pm)

Near-Field Channel Estimation for 6G XL-MIMO Systems



Participants

Type a name

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- AS Ashwini Sankhe (External)
- AR AVNI RANDEV (External)
- BW Bharat Warude (Unverified)
- C C.KARUPPASAMY (Unverified)
- DS Davinder Singh (External)
- DN Dheeraj Namdev (External)
- DA Dipti Ambade (Unverified)
- DV Dr Vijaya (Unverified)
- DS Dr. Bhavin Shah (AI & DS De... (Unverified)

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FACULTY DEVELOPMENT PROGRAMME ON :

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Date 3rd Nov 2025 to 8th Nov 2025

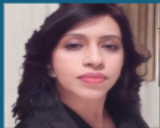
Application No: 1749200927

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Day-05 Date: 7th Nov 2025

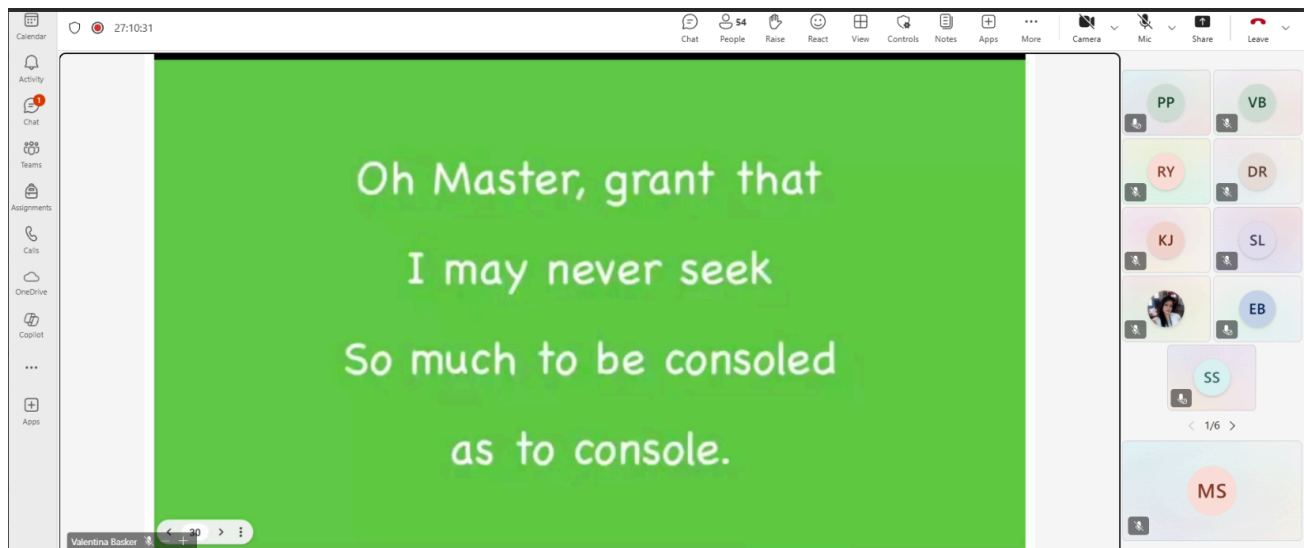
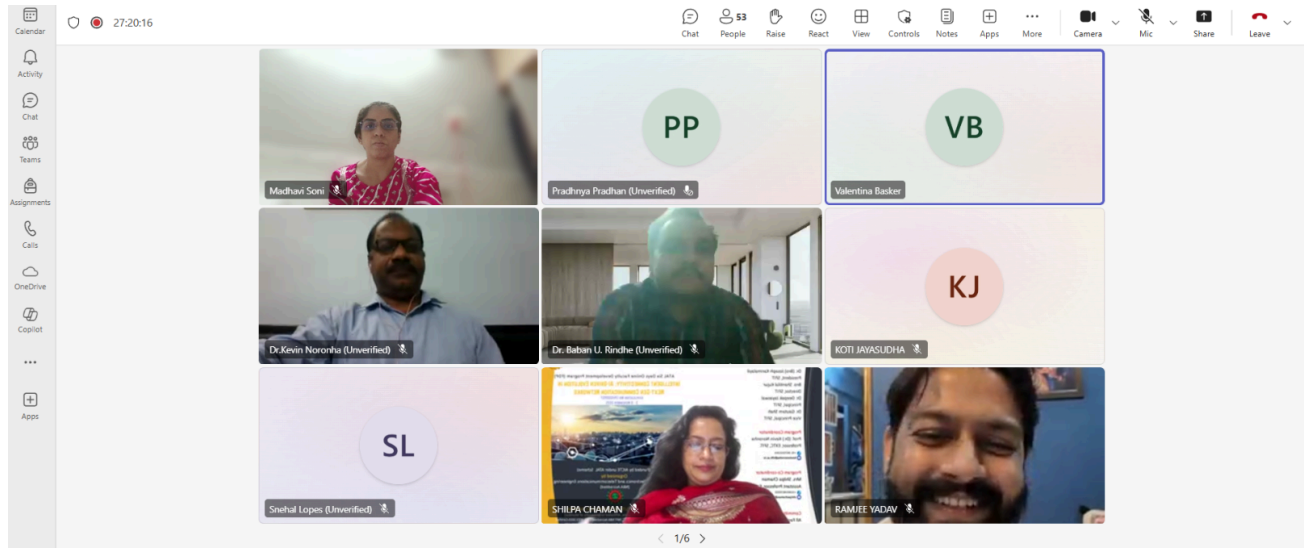


Dr. Shravani Shahapure
Associate Director, Big-4, Mumbai

Session 09
(6:00-7:30 pm)

Securing AI-Driven Networks: Challenges and Solutions in Modern Communication





THANK YOU!