

**School of Engineering**  
**Department of Electronics & Communication Engineering**  
**Report on**

**A Five-day FDP on “Unified Frontiers in Wireless Communication and Radio Networking”**

The NNRG Innovators of Communication and Networking (NICoN) of Department of Electronics and Communication Engineering, Nalla Narasimha Reddy Education Society's Group of Institutions successfully organized a Five-Day Online Faculty Development Programme on “Unified Frontiers in Wireless Communication and Radio Networking” from 11<sup>th</sup> to 15<sup>th</sup> November 2025. This report presents a consolidated overview of all sessions, key technical highlights, inauguration, and valedictory events.

  
**NALLA NARASIMHA REDDY**  
Education Society's Group of Institutions-Integrated Campus  
(Approved by AICTE & PCI, New Delhi & Affiliated to JNTUH, Accredited by NAAC with A+ Grade)  
Chowdhriguda (V), Korremula 'X' Road, Ghatkesar (M), Medchal-Malkajgiri (D), Hyderabad - 500086, Telangana.  
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**SCHOOL OF ENGINEERING**  
**Department of Electronics & Communication Engineering**  
*NNRG Innovators of Communication and Engineering (NICoN)*  
**Organizes**

**A Five Day Online Faculty Development Programme**  
*on*

**“Unified Frontiers in Wireless Communication and Radio Networking”**

**from 11-11-2025 to 15-11-2025**

**Eminent Speakers**

  
**Dr. B. V. Subbarao**  
Distinguished Professional- AICTE,  
Former Scientist, ISRO-SHAR,  
Director, QISCAT and  
Technical Advisor, INSPACE,  
Department of Space.

  
**Dr. S. Radha**  
Associate Professor,  
Dept of ECE, CBIT,  
Hyderabad

  
**Dr. G. Shine Let**  
Assistant Professor (Senior Grade),  
Dept of ECE, Karunya Institute of  
Technology and Sciences,  
Coimbatore

  
**Dr. Navin M George**  
Associate Professor,  
Dept of ECE, Nehru Institute of  
Engineering and Technology,  
Coimbatore, Tamilnadu

  
**Dr. Suman Nelaturi**  
Assistant Professor,  
Dept of ECE,  
NIT - Kurukshetra

**Contact: 9014760354**



**Scan for Registration**





**Chief Patron**  
**Shri Nalla Narasimha Reddy**  
Chairman, NNRESGI

**Patron**  
**Dr. C.V. Krishna Reddy**  
Director, NNRESGI

**Co-Patron**  
**Mr. Nalla Prashanth Reddy**  
Vice-Chairman, NNRESGI

**Co-Patron**  
**Dr. G. Janardhana Raju**  
Dean - SoE, NNRESGI

**Convenor**  
**Dr. B. Ravi**  
HoD-ECE, NNRESGI

**Coordinator**  
**Dr. S. Rekha**  
Assoc. Prof, ECE, NNRESGI

**Co-coordinator**  
**Mr. A. Aravind**  
Asst. Prof, ECE, NNRESGI

## Press Release Overview

# NNRG Hosts Five-Day Online FDP on Wireless Communication

DECCAN NEWS SERVICE

■ HYDERABAD

The Nalla Narasimha Reddy Education Society's Group of Institutions (NNRG), Department of Electronics and Communication Engineering, successfully conducted a five-day Online Faculty Development Programme (FDP) on "Unified Frontiers in Wireless Communication and Radio Networking" from 11th to 15th November 2025.

The FDP aimed to equip faculty members and researchers with comprehensive knowledge of emerging technologies in modern communication systems, radio networking, and intelligent

wireless infrastructures.

The inaugural session commenced with a welcome address by Dr. S. Rekha, Program Coordinator, followed by opening remarks from Dr. B. Ravi, Convener & HoD (ECE), who highlighted the programme's objective of bridging academic research with cutting-edge developments in wireless systems. Dr. C. V. Krishna Reddy, Director, NNRG, formally inaugurated the event, stressing the critical relevance of radio networking in the 5G and upcoming 6G communication era.

A key session was delivered by Dr. B. V. Subbarao, Distinguished Professional – AICTE, Former Scientist at

ISRO-SHAR, and Technical Advisor – INSPACE, Department of Space, who presented an in-depth talk on "Integrated Communication Networks for Satellite Launch and Range Operations". Over the five days, other eminent speakers shared insights into advanced wireless communication, network design, and future-ready radio systems.

The valedictory address was delivered by Director Dr. C. V. Krishna Reddy, who encouraged participants to implement the knowledge gained in their academic and research endeavors. Dean of School of Engineering Dr. G. Janardhana Raju and Dean of School of Pharmacy Dr. Krishna Mohan



Chinnala appreciated the participants' engagement and emphasized the importance of continuous learning in the rapidly evolving field of communication technologies.

The programme concluded with a formal vote of thanks by A. Aravind, Program Coordinator, acknowledging the contribution of resource persons, participants, and the NNRG management in making the FDP a resounding success.

## Day 1: Inaugural Programme

The inaugural session began with a warm welcome address by Dr. S. Rekha, Coordinator, followed by opening remarks from Dr. B. Ravi, Convener & HoD (ECE), highlighting the FDP's objectives of bridging academic research with emerging technologies in wireless systems. Dr. C. V. Krishna Reddy, Director of NNR Group of Institutions, inaugurated the event and emphasized the relevance of radio networking in the context of 5G and 6G communication. The key note address was delivered by the Chief Guest Dr. B. V. Subba Rao. Finally, the vote of thanks was delivered by B. Nagaprasanna, Assistant Professor-ECE.

## **REPORT ON FACULTY DEVELOPMENT PROGRAM – DAY 1**

<b>Name of Guest Speaker</b>	:	Dr. B. V. Subba Rao, Distinguished Professional – AICTE, Former Scientist, ISRO–SHAR, Technical Advisor, INSPACE, Department of Space.
<b>Topic</b>	:	Integrated Communication Networks for Satellite Launch and Range Operations
<b>Day And Date</b>	:	Tuesday, November 11, 2025
<b>Venue</b>	:	Online platform Google Meet
<b>Time</b>	:	1:30pm to 4:00pm
<b>Total No. of Participants</b>	:	58

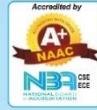
### **Key Note Address:**

Dr. B. V. Subba Rao, Former Scientist at ISRO–SHAR, delivered an insightful session on “*Range Instrumentation for Satellite Launch Base Facility.*” He explained the key subsystems involved in satellite launch operations such as telemetry, tracking, telecommand, communication, and range safety. The session highlighted the evolution of radar systems (R2–R3, P1–P4) from analog to modern FPGA-based technologies and their role in tracking launch vehicles and atmospheric studies. Dr. Subba Rao also discussed optical tracking, mission control architecture, meteorological monitoring, and range safety protocols at Satish Dhawan Space Centre. The talk concluded with an overview of emerging technologies like multi-object tracking radars and advanced data networks, illustrating India’s technological progress in space communication and mission support systems. The day 1 of the FDP was full of knowledge and the session was very informative for all. The explanations given by sir were high informative.



# NALLA NARASIMHA REDDY

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## Resource Person



**Dr. B. V. Subbarao**

Distinguished Professional- AICTE,  
Former Scientist, ISRO-SHAR,  
Director, QISCT and  
Technical Advisor, INSPACE,  
Department of Space

## SCHOOL OF ENGINEERING Department of Electronics & Communication Engineering NNRG Innovators of Communication and Engineering (NICoN)

Welcome

to

## Faculty Development Program

on

## Unified Frontiers in Wireless Communication and Radio Networking

Date: 11-11-2025

Time: 01:45 PM to 03:30 PM

## Photos of Activity



**A One week online  
FDP by  
NNRG-ECE-NICoN  
Day 1  
(11/11/2025)**

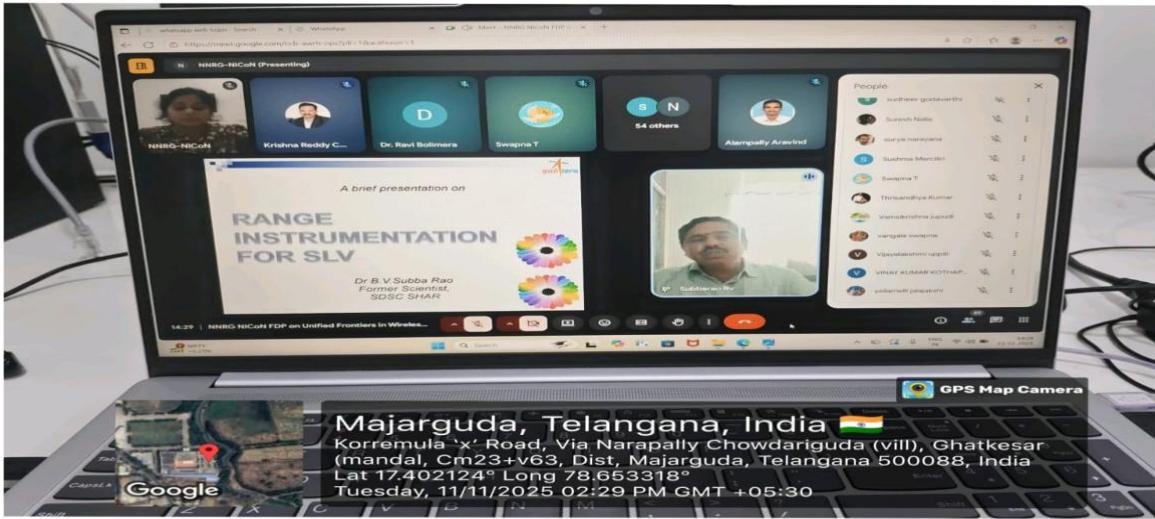
**Director Dr. C. V.  
Krishna Reddy  
Guru addressing  
the gathering**



**HoD- ECE  
Dr. B. Ravi Guru  
addressing the  
gathering**

**Chief guest & Speaker  
Dr. B. V. Subba Rao  
Guru addressing the  
gathering**





**Speaker Dr. BV Subba Rao Garu presenting the session on  
"Integrated Communication  
Networks for Satellite Launch and Range  
Operations"**



## **REPORT ON FACULTY DEVELOPMENT PROGRAM – DAY 2**

### **Activity Title:**

“Faculty Development Program – Day 2”

### **Name of Guest Speaker:**

Dr. S. Radha, Associate Professor,  
Department of ECE, CBIT, Hyderabad

### **Topic:**

“AI-driven Radio Access Network: Emerging Wireless Architectures”

### **Day and Date:**

Wednesday, November 12, 2025

### **Venue:**

Online Platform – Google Meet

### **Time:**

02:00 p.m. to 03:30 p.m.

**Total No. of Participants: 55**

**Key note Address:**

The second day of the Faculty Development Program focused on the transformative role of Artificial Intelligence in modern wireless communication systems. The session was delivered by Dr. S. Radha, who explained how AI and Machine Learning techniques are redefining the architecture of Radio Access Networks (RAN).

She highlighted the evolution from traditional RAN structures to intelligent, self-optimizing, and autonomous AI-driven RAN models. Key discussion points included resource allocation optimization, traffic prediction, latency reduction, and enhanced spectral efficiency for next-generation 6G networks. Dr. Radha explained how AI enables network adaptability through continuous monitoring, data-driven decision-making, and intelligent handover mechanisms.

The session provided insights into advanced concepts such as Open RAN (O-RAN), self-organizing networks (SON), and AI-enabled base station deployment. Participants engaged in an interactive discussion regarding real-time AI applications, challenges in implementation, and future research opportunities in intelligent wireless network engineering.

**Photos of Activity:**

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**SCHOOL OF ENGINEERING**  
**Department of Electronics & Communication Engineering**  
*NNRG Innovators of Communication and Engineering (NICoN)*

**Welcome**  
**to**  
**Faculty Development Program**  
**on**  
**Unified Frontiers in Wireless**  
**Communication and Radio Networking**

**Resource Person**  
  
**Dr. S. Radha**  
Associate Professor,  
Dept of ECE, CBIT,  
Hyderabad

**Date:** 12-11-2025      **Time:** 02:00 PM to 03:30 PM

**A One week online  
FDP by  
NNRG-ECE-NICoN  
Day 2 (12/11/2025)**

**NALLA NARASIMHA REDDY**  
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**SCHOOL OF ENGINEERING**  
Department of Electronics & Communication Engineering  
NNRG Innovators of Communication and Engineering (NICoN)

**Welcome**  
**Faculty Development Program**  
on  
Unified Frontiers in Wireless  
Communication and Radio Networking

Date: 12-11-2025 Time: 02:00 PM to 03:30 PM

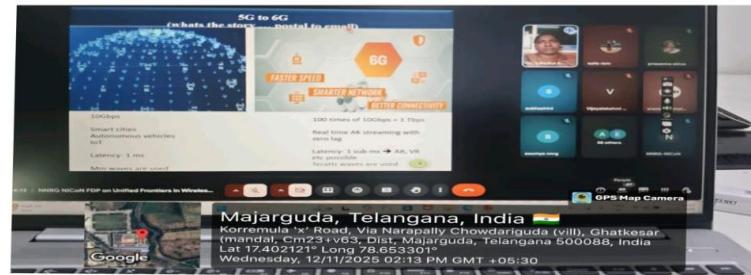


**Speaker  
Dr. S. Radha  
addressing the  
gathering**

**Program Coordinator  
Dr. S. Rekha addressing  
the gathering**



**Program Co-coordinators.  
Ms. K. Anuradha &  
Ms. B. Naga Prassanna  
monitoring the sessions.**



**Speaker Dr. S. Radha.  
presenting session on  
"AI driven Radio access networks,  
emerging wireless architecture"**



## **REPORT ON FACULTY DEVELOPMENT PROGRAM – DAY 3**

### **Activity Title:**

“Faculty Development Program – Day 3”

### **Name of Guest Speaker:**

Dr. G. Shine Let, Assistant Professor (Senior Grade),  
Department of ECE, Karunya Institute of Technology and Sciences, Coimbatore

### **Topic:**

“Exploring Cognitive Radio Networks: Concepts and Real-Time Applications”

### **Day and Date:**

Thursday, November 13, 2025

### **Venue:**

Online Platform – Google Meet

### **Time:**

02:00 p.m. to 03:30 p.m.

**Total No. of Participants: 55**

### **Key note address:**

The third day of the Faculty Development Program focused on one of the most advanced and emerging areas in wireless communication—Cognitive Radio Networks (CRNs). The session was delivered by Dr. G. Shine Let, who provided an in-depth understanding of how cognitive radios enable intelligent spectrum usage through dynamic spectrum sensing, learning-based access techniques, and adaptive communication strategies.

Dr. Shine Let introduced the concepts of spectrum scarcity, the need for dynamic spectrum access (DSA), and the functioning of primary and secondary users in a CRN environment. She explained real-time applications of cognitive radios in public safety communications, disaster management networks, military communication systems, and 6G intelligent connectivity frameworks. The session concluded with a live interaction, where participants discussed implementation challenges such as spectrum mobility, sensing accuracy, and hardware limitations. The session was extremely informative and provided a strong foundation for understanding next-generation communication systems and adaptive radio technologies.

## Photos of Activity:

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**SCHOOL OF ENGINEERING**  
**Department of Electronics & Communication Engineering**  
*NNRG Innovators of Communication and Engineering (NICoN)*

**Resource Person**  
  
**Dr. G. Shine Let**  
Assistant Professor (Senior Grade),  
Dept of ECE, Karunya Institute of  
Technology and Sciences,  
Coimbatore

**Welcome**  
**to**  
**Faculty Development Program**  
**on**  
**Unified Frontiers in Wireless  
Communication and Radio Networking**

**Date: 13-11-2025**      **Time: 02:00 PM to 03:30 PM**

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**Welcome**  
**to**  
**Faculty Development Program**  
**on**  
**Unified Frontiers in Wireless  
Communication and Radio Networking**

**Date: 13-11-2025**      **Time: 02:00 PM to 03:30 PM**

**A One week online  
FDP by  
NNRG-ECE-NICoN  
Day 3 (13/11/2025)**

**Speaker  
Dr. G. Shine Let  
is delivering the inaugural  
address.**



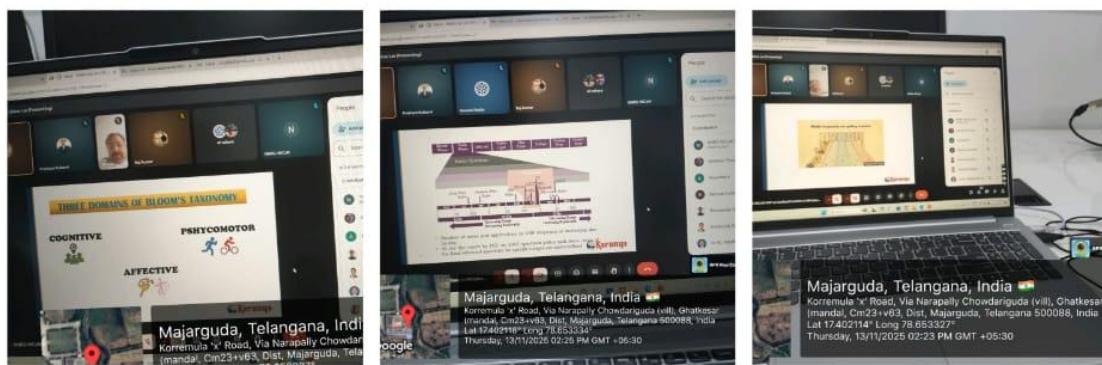
**Introducing the  
eminent speaker by  
program Co-coordinator  
Mr. P. K. Kulkarni**



**Program Co-coordinator  
Mr. N. Raju  
monitoring the session.**



**Speaker Dr. G. Shine LET Presenting session on  
"Exploring Cognitive Radio  
Networks: Concepts and Real-Time  
Applications"**



## **REPORT ON FACULTY DEVELOPMENT PROGRAM – DAY 4**

**Activity Title:** “Faculty Development Program – Day 4”

**Name of Guest Speaker:** Dr. Navin M George, Associate Professor, Dept. of ECE, Nehru Institute of Engineering and Technology, Coimbatore, Tamil Nadu

**Topic:** “RF Energy Harvesting Antennas and Rectenna Design”

**Day and Date:** Friday, November 14, 2025

**Venue:** Online Platform – Google Meet

**Time:** 02:00 p.m. to 03:30 p.m.

**Total No. of Participants:** 55

### **Key note Address:**

The fourth day of the Faculty Development Program featured an insightful session on “RF Energy Harvesting Antennas and Rectenna Design” by Dr. Navin M George. The speaker briefly extended his greetings to the gathering and initiated the session with an introduction to RF energy harvesting and its significance in modern wireless powering systems.

The session covered various antenna structures, rectifier circuits, impedance matching techniques, and performance improvement strategies for rectenna design. Real-time design aspects using simulation tools were demonstrated, providing participants with clarity on practical implementation. Ms. G. Soumya, Assistant Professor, introduced the speaker and monitored the entire session to ensure smooth conduct.

The session concluded with an interactive Q&A, where participants discussed challenges in RF–DC conversion efficiency, frequency selection, and compact antenna design. Overall, the session was highly informative and enriched the participants’ knowledge on advanced RF harvesting technologies.

## Photos of Activity:

**A One week online FDP by NNRG-ECE-NICoN Day 4 (14/11/2025)**

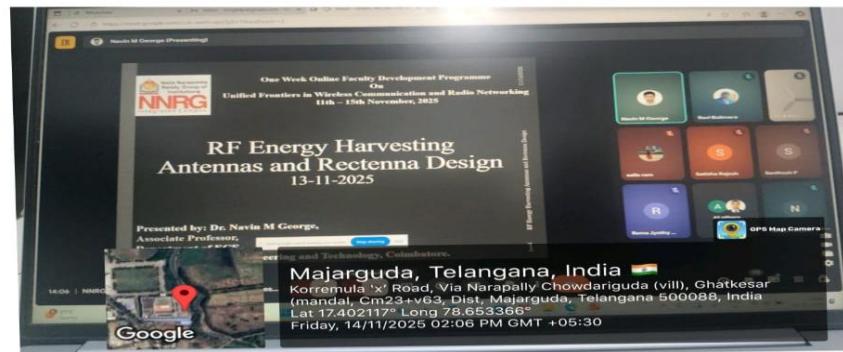


**Extending the greetings to the gathering by speaker Dr. Navin M George**

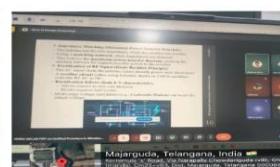
**Introducing the eminent speaker by Ms. G. Soumya Assistant Professor**



**Ms. G. Soumya Assistant Professor is monitoring the session**



**Speaker  
Dr. Navin M George  
presenting the session on  
"RF Energy Harvesting Antennas  
and Rectenna Design"**



## **REPORT ON FACULTY DEVELOPMENT PROGRAM – DAY 5**

**Activity Title:** Unified Frontiers in Wireless Communication and Radio Networking

**Name of Guest Speaker:** Dr. Suman Nelaturi, Assistant Professor, Dept. of ECE, NIT Kurukshetra

**Topic:** Active Electronic Scanned Arrays

**Day and Date:** Saturday, November 15, 2025

**Venue:** Online Platform – Google Meet

**Time:** 2:00 p.m. to 3:30 p.m.

**Total No. of Participants:** 55

**Key note address:**

The fifth day of the Faculty Development Programme featured a highly informative session by Dr. Suman Nelaturi on the topic “Active Electronic Scanned Arrays.” He delivered insights into phased array antennas, beam steering techniques, and modern electronically scanned array technologies. The session also included real-time demonstrations, visual explanations of antenna structures, and interactive discussions with participants. Program Coordinator Dr. S. Rekha introduced the speaker, and Ms. B. Naga Prasanna, Assistant Professor, monitored the session effectively.

### **Photos of Activity:**





**A One week online FDP by NNRG-ECE-NICOn Day 5 (15/11/2025)**

**Inaugural address by speaker Dr. Suman Nelaturi**



**Introducing the eminent speaker by Program Coordinator Dr. S. Rekha**

**Ms. B. Naga Prasanna Assistant Professor is monitoring the session**



**Speaker Dr. Suman Nelaturi presenting session on "Active Electronic Scanned Arrays"**



## A One week online FDP by NNRG-ECE-NICoN Valedictory session (15/11/2025)



Dean-SoE Dr. G. Janardana Raju Garu extending greetings to the gathering



Dean-SoP Dr. Ch. Krishna Mohan Garu extending words of appreciation to the gathering



ECE - HoD Dr. B. Ravi addressing the gathering



Chief guest Dr. Suman Nelaturi extending greetings to the gathering



Program Coordinator Dr. S. Rekha organising the session



Program Co-ordinator Mr. A. Aravind presenting the vote of thanks

### FDP Objectives:

<b>OBJECTIVE 1</b>	To provide participants with a comprehensive understanding of emerging wireless architectures, including AI-driven Radio Access Networks and Cognitive Radio Networking concepts.
<b>OBJECTIVE 2</b>	To enhance participants' ability to apply optimization algorithms and artificial intelligence techniques for improving wireless communication performance and efficiency
<b>OBJECTIVE 3</b>	To bridge the gap between theoretical research and industrial advancements in next-generation Wireless Communication technologies such as 5G and 6G networks.

## **FDP Outcomes:**

After Completion of FDP, the participants will be able to

<b>OUTCOME 1</b>	Gain knowledge of intelligent and adaptive wireless network architectures and their practical implementation aspects.
<b>OUTCOME 2</b>	Develop the ability to integrate AI and optimization-based approaches in Wireless Communication System Design and Analysis.
<b>OUTCOME 3</b>	Equipped to pursue advanced research, teaching, and project development in emerging areas of wireless communication and networking.

## **Impact Analysis – A Survey from Participants (on an Average)**

<b>S. No.</b>	<b>Evaluation Parameter</b>	<b>Rating (1–5)</b>
1	The FDP enhanced my understanding of the principles and concepts of intelligent wireless network architectures.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input checked="" type="checkbox"/>
2	I am familiar with real-world implementation aspects of adaptive wireless communication systems after attending the FDP.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>
3	I can identify industry standards and trends in advanced wireless network architectures	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>
4	I am confident in integrating AI approaches within wireless communication system design.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>
5	The FDP improved my ability to use optimization algorithms for wireless communication analysis	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>
6	I can apply AI and optimization techniques to solve complex problems in wireless networks.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>
7	I am equipped to pursue advanced research in emerging areas of wireless communication and networking.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>
8	The FDP provided me with resources and knowledge that can be incorporated into my teaching/coaching.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5 <input type="checkbox"/>

S. No.	Evaluation Parameter	Rating (1–5)
9	I feel prepared to initiate or contribute to projects related to next-generation wireless communication technologies.	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input checked="" type="checkbox"/>

### Mapping of FDP Outcomes with POs and PSOs:

FDP Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>01</b>	3	2	2		3								1	2
<b>02</b>	3	3	3		3								2	3
<b>03</b>	3	2	1	3	1				2				3	3
<b>AVG</b>	<b>3</b>	<b>2.3</b>	<b>2</b>	<b>3</b>	<b>2.3</b>				<b>2</b>				<b>2</b>	<b>2.6</b>

*S. Rekha*

NICoN- SPoC  
Dr. S. Rekha

Associate Professor



HoD-ECE  
Dr. Ravi Bolimera

Associate Professor