

## ABOUT INSTITUTION:

Global Institute of Engineering and Technology, Hyderabad, Telangana is affiliated to JNTUH & approved by AICTE. GIET was established in the year 2006 with a vision To produce technologically skilled Engineers of world class competency to address global challenges. GIET nurtures and supports a unique system of education structure on values and combines the tenets of the academic excellence with corporate professionalism. The primary objective at Global Institute of Engineering and Technology is to impart quality education which leads to quality living. Located at Moinabad, the sprawling campus spread over 28 acres of lush greenery creates the most conducive environment for education. GIET offers undergraduate programmes in ECE, EEE, CSE, CE, ME, CSE(AI ML), CSE(DS)\* and postgraduate programmes Embedded Systems & Structural Engineering.

The system of education at Global Institute of Engineering & Technology grooms the students to rise into professionals and leaders of high academic caliber with unblemished character. Dedicated, experienced and qualified faculty help in honing the skills of students at early level of their learning.

## ABOUT THE ECE DEPARTMENT:

The Department has good infrastructural facilities and is equipped with full-fledged laboratories. The Department also has audio-visual teaching aids with LCD for effective teaching. Keeping pace with the Global Trends GIET has established advanced labs in Digital Electronics, Mobile Communication, Embedded Systems, VLSI Design, Microwave Engineering etc. Main thrust of ECE Department is to provide better quality education required by the present industry and train the students in new technologies to equip them to cater to the present global requirements. The Department is offering M.Tech in Embedded Systems.

\*Waiting for approval from JNTU

## ABOUT FACULTY DEVELOPMENT PROGRAM:

The main objective of these FDP is to provide domain knowledge on Recent and Emerging Trends in Wireless Communication to bridge the gap between the academia and industry.

This Faculty Development Program is organized to share the recent advances in the area of Recent and Emerging Trends in Wireless Communication. This FDP is a gateway and an eye-opener for the young research community. The Faculty Development Program will highlight the recent research developments and the directions for further Research in Wireless Communication

### Speakers:

- **Dr. Munna Swamy,**  
**Professor of ECE,GNIT**
- **Mr. Zohaib Uddin,**  
**Technical Lead, Zeal Digital Solutions Pvt.Ltd., Hyderabad**
- **Dr. Chandra Mohan,**  
**Professor of ECE, SITS**
- **Mr. Laxminarayan, Engineer,**  
**Data Point Pvt. Ltd., Hyderabad**
- **Dr. Syed Abdul sattar,**  
**Professor of ECE,NSAKCET**

## TOPICS TO BE COVERED:

- **5G/6G Wireless Communication Systems**
- **Codes for 5G Wireless**
- **Software Defined Networks**
- **Evolution of Cellular Communication Standards 1G -5G**
- **5G: Challenges and Enabling Technologies**
- **Design Techniques for 5G**
- **MIMO & 5G Realization of microwave and millimetre-wave Devices for 5G wireless comm**
- **Channel Models for Wireless Communication**
- **Device-to-Device (D2D) communications**
- **Spectrum Sensing and Cognitive Radio**

**Below are the means to help you with your self-reflection, self-verification:**

1. **Attendance:** This Faculty Development program is like a sentence spoken over 5 days. Participation in all sessions is desirable to get all the proposals being put forth.
2. **Practice:** There will be session wise practice for practical improvement.
3. **Course Outcome Evaluation:** Interactive session will be Conducted On last of Course For Which You Need To participate In Order To Receive Certificate.

## ORGANIZING COMMITTEE:

### Chief Patron:

Mrs. Sabiha Arifuddin  
M.Phil

Secretary MEWS

### Patron:

1. Mr. K M Fasihuddin,  
Director GPC

### Co-Patrons:

1. Prof. Ravindra Tiwari,  
Dean GPC
2. Prof. K Sivalingam,  
Principal GIET

### Organizing Secretary:

Mr.G.Ahmed Zeeshan  
BE., M.Tech., (Ph.D.), LMISTE  
Head ECE & Vice Principal

### Convenor:

Mr.D Kamalakar Reddy  
Asst. Prof. Dept of ECE

### Coordinator:

Mr. Faizur Rahman Babul  
Asst. Prof. Dept of ECE

## How to Apply:

Interested Faculties and Researchers are required to fill Registration Form online only through Google forms at the link given below

<https://forms.gle/1nkUgGvXxDSpaGS99>

**Registration should be done between  
10/10/2021 to 22/10/2021  
Limited Registrations. First Come First Serve**

## WHO SHOULD ATTEND?

**The Course is designed for Faculty and  
Researchers of ECE**

**For any query regarding this program,  
please contact**

**Mr. D Kamalakar Reddy,  
Convenor  
Assistant Professor, Dept. of ECE  
GIET,Hyderabad  
Mobile: +91 8639864291  
Email: [kamalakar.damera@gmail.com](mailto:kamalakar.damera@gmail.com)**

## COORDINATOR:

**Mr. Faizur Rahman Babul  
Asst. Prof Dept of ECE  
Mobile:+917207941916**

# GLOBAL INSTITUTE OF ENGINEERING & TECHNOLOGY



**FACULTY DEVELOPMENT PROGRAM  
On  
RECENT AND EMERGING TRENDS IN  
WIRELESS COMMUNICATION  
(25<sup>th</sup> to 29<sup>th</sup> October, 2021)**



**Organized by  
DEPARTMENT OF ELECTRONICS &  
COMMUNICATION ENGINEERING  
GLOBAL INSTITUTE OF ENGINEERING  
& TECHNOLOGY**

(A NAAC Accredited Institution, Approved by  
AICTE & Affiliated to JNTUH)

Recognized under section 2(f) of UGC Act 1956  
An ISO 9001:2015 Certified Institution  
Chilkur (V), Moinabad (M), RR Dist - TS

**Phone No:** +91-9985-359-601  
+91-879-010-1015 +91 +91 99592 50205

**E-mail:** [principal.giet.u6@gmail.com](mailto:principal.giet.u6@gmail.com)  
[gieteng@gmail.com](mailto:gieteng@gmail.com)

**Website:** [www.globalhyd.edu.in](http://www.globalhyd.edu.in)



# GLOBAL

## Institute of Engineering & Technology

(Approved by AICTE & Affiliated to JNTUH)

Survey No. 179, Chilkur (V), Moinabad (M), Ranga Reddy Dist. TS.

Phone: 08417-252233 / 253021

e-mail: [principal.giet.u6@gmail.com](mailto:principal.giet.u6@gmail.com)

JNTUH Code(U6) CIVIL – CSE – MECH – ECE – EEE – MBA – M.Tech. EAMCET Code– GLOB

## Department of Electronics and Communication Engineering

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**G Ahmed Zeeshan**

B.E, M.Tech.,(Ph.D)

**Associate Professor & Head**

Lr.No: ECE/Staff/FDP-RETWC/2021/1

Date 01/10/2021

To

The Principal  
GIET

Sir,

Sub: Hosting a Five-Day Faculty Development Program on Recent and Emerging Trends in Wireless Communication – Reg.

\*\*\*\*\*

The Department of Electronics and Communication Engineering is planning to host a **Five Day Faculty Development Program on Recent and Emerging Trends in Wireless Communication** from 25<sup>th</sup> October 2021 to 29<sup>th</sup> October 2021 for the Faculty members of Department of Electronics and Communication Engineering. I would like to request for your permission and support to conduct the course. It will be ensured that information delivered to Faculty is standardized.

The objectives of the course are to enable the participating faculty members to understand the concept of Recent and Emerging Trends in Wireless Communication. It is therefore important for Faculty members to have a deep understanding of concept, to determine the objective, to decide on a key project and to enhance knowledge. This Faculty Development Program will be very key as it will bring new ideas for the projects of Faculty members of the Department.

Kindly accord approval so as to make necessary arrangements for hosting a Five-Day Faculty Development Program on Recent and Emerging Trends in Wireless Communication.

Thanking you.

**Sd/-  
HEAD**



# GLOBAL

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e-mail: [principal.giet.u6@gmail.com](mailto:principal.giet.u6@gmail.com)

JNTUH Code(U6)

CIVIL – CSE – MECH – ECE – EEE – MBA – M.Tech.

EAMCET Code– GLOB

## Department of Electronics and Communication Engineering

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Date: 07/10/2021

### CIRCULAR

The Department of Electronics and Communication Engineering is hosting **A Five Day Faculty Development Program on Recent and Emerging Trends in Wireless Communication** for Faculty of Electronics and Communication Engineering Department, PG Students, Researchers and Industry Representatives from 25<sup>th</sup> to 29<sup>th</sup> October 2021 in online mode through Zoom Meeting. All the Faculty of Electronics and Communication Engineering Department and Industry Representatives are hereby informed to register for the course on or before 10<sup>th</sup> October 2021. The Co-Ordinator for the Faculty Development Program is Mr. Faizur Rahman Babul, Assistant Professor, Department of ECE.

Sd/-  
**HEAD**



# GLOBAL

## Institute of Engineering & Technology

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JNTUH Code(U6)

CIVIL – CSE – MECH – ECE – EEE – MBA – M.Tech.

EAMCET Code– GLOB

### Department of Electronics and Communication Engineering A Five Day Faculty Development Program

On

Recent and Emerging Trends in Wireless Communication  
(25<sup>th</sup> -29<sup>th</sup> October, 2021)

### PROGRAMME SCHEDULE

	<b>Forenoon(9:00 AM -12:00 PM)</b>		<b>Afternoon(1:00 PM- 4:00 PM)</b>
<b>Day 1</b>	<b>Inauguration</b>	<b>5G/6G Wireless Communication Systems</b> <i>Mr. G Ahmed Zeeshan, Asst. Professor of ECE,GIET</i>	<b>Codes for 5G Wireless</b> <i>Mr. Zohaib Uddin, Technical Lead, Zeal Digital Solutions Pvt.Ltd.,Hyderabad</i>
<b>Day 2</b>	<b>Software Defined Networks</b> <i>Dr. Chandra Mohan, Professor of ECE,SITS</i>		<b>Evolution of Cellular Communication Standards 1G -5G</b> <i>Mr. Laxminarayan, Engineer, Data Point Pvt. Ltd., Hyderabad</i>
<b>Day 3</b>	<b>5G: Challenges and Enabling Technologies</b> <i>Dr. Munna Swamy, Professor of ECE,GNIT</i>		<b>Design Techniques for 5G</b> <i>Dr. Syed Abdul sattar, Professor of ECE,NSAKCET</i>
<b>Day 4</b>	<b>MIMO &amp; 5G Realization of microwave and millimetre-wave Devices for 5G wireless comm</b> <i>Mr.Laxminarayan,Engineer, Data Point Pvt. Ltd. Hyderabad</i>		<b>Channel Models for Wireless Communication</b> <i>Dr. Syed Abdul sattar, Professor of ECE,NSAKCET</i>
<b>Day 5</b>	<b>Device-to-Device (D2D) communications</b> <i>Dr. Syed Abdul sattar, Professor of ECE,NSAKCET</i>		<b>Spectrum Sensing and Cognitive Radio</b> <i>Dr. Munna Swamy, Professor of ECE,GNIT</i>
			<b>Valedictory, Feedback and Certificate Distribution</b>

Sd/-  
Co- Ordinator  
Mr. Faizur Rahman Babul  
Assistant Professor  
Department of ECE

**LIST OF PARRTICIPANTS**

Full Name	Email	Gender	Designation	Contact Number
Dr. G Ahmed Zeeshan	<a href="mailto:ahmedzeeshan.engg@gmail.com">ahmedzeeshan.engg@gmail.com</a>	Male	Associate Professor	9959250205
Dr. S.Padam Priyal	<a href="mailto:priyalpadam010@gmail.com">priyalpadam010@gmail.com</a>	Female	Professor	8460458587
Dr. Shyam Anand	<a href="mailto:shyam2345@gmail.com">shyam2345@gmail.com</a>	Male	Professor	8981239022
Mr. Shabnam Kaleem	<a href="mailto:shabkaleem908@gmail.com">shabkaleem908@gmail.com</a>	Male	Associate Professor	9964503347
Ms. Nuzath Unnisa Begum	<a href="mailto:nuzath.khan99@gmail.com">nuzath.khan99@gmail.com</a>	Female	Assistant Professor	9640641036
Mr. S. Ravi	<a href="mailto:raviecegiet@gmail.com">raviecegiet@gmail.com</a>	Male	Assistant Professor	8008771588
Ms. M. Sai Chandana	<a href="mailto:mallikantisaichandana.121@gmail.co">mallikantisaichandana.121@gmail.co</a>	Female	Assistant Professor	9704890527
Mr. MD. Altaf Ur Rahman	<a href="mailto:altafrahman76@gmail.com">altafrahman76@gmail.com</a>	Male	Assistant Professor	7207941916
Mr. Hari Krishna	<a href="mailto:harijugnu345@gmail.com">harijugnu345@gmail.com</a>	Male	Assistant Professor	7799620923
Mrs. Anwar Jahan	<a href="mailto:anwarjahan2@gmail.com">anwarjahan2@gmail.com</a>	Female	Assistant Professor	9491033752
Ms. Imrose Basha	<a href="mailto:bashaimrose4@gmail.com">bashaimrose4@gmail.com</a>	Female	Assistant Professor	8897632127
Mr. M Raghu	<a href="mailto:raghum6578@gmail.com">raghum6578@gmail.com</a>	Male	Assistant Professor	9849609640
Dr. V Usha Sree	<a href="mailto:ushasree0921@gmail.com">ushasree0921@gmail.com</a>	Female	Assistant Professor	8688817631
Mrs. R Seetha	<a href="mailto:rsriitha456@gmail.com">rsriitha456@gmail.com</a>	Female	Professor	7730007864

## REGISTRATION THROUGH GOOGLE FORM

Timestamp	Full Name	Email	Gender	Designation	Department	Name of the Institute
10-11-2021 16:03:40	Dr. G Ahmed Zeeshan	ahmedzeeshan.engg@gmail.com	Male	Associate Professor	ECE	Global Institute of Engg
10-13-2021 16:32:40	Dr. S.Padam Priyal	<a href="mailto:priyalpadam010@gmail.com">priyalpadam010@gmail.com</a>	Female	Professor	ECE	Global Institute of Engg
10-13-2021 17:32:41	Dr. Shyam Anand	<a href="mailto:shyam2345@gmail.com">shyam2345@gmail.com</a>	Male	Professor	ECE	Global Institute of Engg
10-14-2021 20:32:40	Mr. Shabnam Kaleem	<a href="mailto:shabkaleem908@gmail.com">shabkaleem908@gmail.com</a>	Male	Associate Professor	ECE	Global Institute of Engg
10-15-2021 16:32:40	Dr. V Usha Sree	<a href="mailto:ushasree0921@gmail.com">ushasree0921@gmail.com</a>	Female	Assistant Professor	ECE	KGRCET
10-16-2021 16:25:40	Mr. Hari Krishna	<a href="mailto:harijugnu345@gmail.com">harijugnu345@gmail.com</a>	Male	Assistant Professor	ECE	Global Institute of Engg
10-17-2021 16:32:40	Ms. M. Sai Chandana	<a href="mailto:mallikantisaichandana.121">mallikantisaichandana.121</a>	Female	Assistant Professor	ECE	Global Institute of Engg
10-19-2021 16:24:40	Mr. MD. Altaf Ur Rahman	altafrahman76@gmail.com	Male	Assistant Professor	ECE	Global Institute of Engg
10-19-2021 16:32:40	Mr. M Raghu	<a href="mailto:raghum6578@gmail.com">raghum6578@gmail.com</a>	Male	Assistant Professor	ECE	KGRCET
10-20-2021 16:32:40	Mrs. Anwar Jahan	anwarjahan2@gmail.com	Female	Assistant Professor	ECE	Global Institute of Engg
10-22-2021 17:32:40	Ms. Imrose Basha	<a href="mailto:bashaimrose4@gmail.com">bashaimrose4@gmail.com</a>	Female	Assistant Professor	ECE	Global Institute of Engg
10-22-2021 17:37:40	Ms. Nuzath Unnisa Begum	<a href="mailto:nuzath.khan99@gmail.com">nuzath.khan99@gmail.com</a>	Female	Assistant Professor	ECE	Global Institute of Engg
10-22-2021 18:24:40	Mrs. R Seetha	<a href="mailto:rsritha456@gmail.com">rsritha456@gmail.com</a>	Female	Professor	ECE	JBIET
10-22-2021 19:28:58	Mr. S. Ravi	raviecegiet@gmail.com	Male	Assistant Professor	ECE	Global Institute of Engg

## ATTENDANCE

Timestamp	Name (To be printed on Certificate)	Designation	Department	Email Id
2021/10/25	Dr. S.Padam Priyal	Professor	ECE	<a href="mailto:priyalpadam010@gmail.com">priyalpadam010@gmail.com</a>
2021/10/25	Mr. S. Ravi	Assistant P	ECE	<a href="mailto:raviecegiet@gmail.com">raviecegiet@gmail.com</a>
2021/10/25	Dr. G Ahmed Zeeshan	Associate	ECE	<a href="mailto:ahmedzeeshan.engg@gmail.com">ahmedzeeshan.engg@gmail.com</a>
2021/10/25	Mr. M Raghu	Assistant P	ECE	<a href="mailto:raghum6578@gmail.com">raghum6578@gmail.com</a>
2021/10/25	Mr. MD. Altaf Ur Rahman	Assistant P	ECE	<a href="mailto:altafrahman76@gmail.com">altafrahman76@gmail.com</a>
2021/10/25	Mr. Hari Krishna	Assistant P	ECE	<a href="mailto:kamalakar.damera@gmail.com">kamalakar.damera@gmail.com</a>
2021/10/25	Mrs. R Seetha	Professor	ECE	<a href="mailto:rsritha456@gmail.com">rsritha456@gmail.com</a>
2021/10/25	Ms. Imrose Basha	Assistant P	ECE	<a href="mailto:bashaimrose4@gmail.com">bashaimrose4@gmail.com</a>
2021/10/25	Dr. Shyam Anand	Professor	ECE	<a href="mailto:shyam2345@gmail.com">shyam2345@gmail.com</a>
2021/10/25	Mr. Shabnam Kaleem	Associate P	ECE	<a href="mailto:shabkaleem908@gmail.com">shabkaleem908@gmail.com</a>
2021/10/25	Ms. Nuzath Unnisa Begum	Assistant P	ECE	<a href="mailto:nuzath.khan99@gmail.com">nuzath.khan99@gmail.com</a>
2021/10/25	Ms. M. Sai Chandana	Assistant P	ECE	<a href="mailto:mallikantisaichandana.121@gmail.com">mallikantisaichandana.121@gmail.com</a>
2021/10/25	Mrs. Anwar Jahan	Assistant P	ECE	<a href="mailto:anwarjahan2@gmail.com">anwarjahan2@gmail.com</a>
2021/10/25	Dr. V Usha Sree	Assistant P	ECE	<a href="mailto:ushasree0921@gmail.com">ushasree0921@gmail.com</a>

**FEEDBACK-GOOGLE FORM -2 PAGES**

Timestamp	Email Address	Score	Name of the Institution(Full Name)	Designation
5-8-2021 16:32:40	<a href="mailto:ahmedzeeshan.engg@gmail.com">ahmedzeeshan.engg@gmail.com</a>	0 / 1	Dr. G Ahmed Zeeshan Global Institute of Engg. & Tech	Associate Professor
5-8-2021 16:32:51	<a href="mailto:priyalpadam010@gmail.com">priyalpadam010@gmail.com</a>	0 / 1	Dr. S.Padam Priyal Global Institute of Engg. & Tech	Professor
5-8-2021 16:33:41	<a href="mailto:shyam2345@gmail.com">shyam2345@gmail.com</a>	0 / 1	Dr. Shyam Anand Global Institute of Engg. & Tech	Professor
5-8-2021 16:34:04	<a href="mailto:shabkaleem908@gmail.com">shabkaleem908@gmail.com</a>	0 / 1	Mr. Shabnam Kaleem Global Institute of Engg. & Tech	Associate Professor
5-8-2021 16:37:39	<a href="mailto:nuzath.khan99@gmail.com">nuzath.khan99@gmail.com</a>	0 / 1	Ms. Nuzath Unnisa Begum Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:38:59	<a href="mailto:raviecegiet@gmail.com">raviecegiet@gmail.com</a>	0 / 1	Mr. S. Ravi Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:39:38	<a href="mailto:mallikantisaichandana.121@gmail.com">mallikantisaichandana.121@gmail.com</a>	0 / 1	Ms. M. Sai Chandana Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:40:04	<a href="mailto:altafrahman76@gmail.com">altafrahman76@gmail.com</a>	0 / 1	Mr. MD. Altaf Ur Rahman Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:40:15	<a href="mailto:harijugnu345@gmail.com">harijugnu345@gmail.com</a>	0 / 1	Mr. Hari Krishna Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:40:16	<a href="mailto:anwarjahan2@gmail.com">anwarjahan2@gmail.com</a>	0 / 1	Mrs. Anwar Jahan Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:40:18	<a href="mailto:bashaimrose4@gmail.com">bashaimrose4@gmail.com</a>	0 / 1	Ms. Imrose Basha Global Institute of Engg. & Tech	Assistant Professor
5-8-2021 16:41:44	<a href="mailto:raghum6578@gmail.com">raghum6578@gmail.com</a>	0 / 1	Mr. M Raghu Vidya Jyothi Institute of Tech	Assistant Professor
5-8-2021 16:42:50	<a href="mailto:ushasree0921@gmail.com">ushasree0921@gmail.com</a>	0 / 1	Dr. V Usha Sree Vidya Jyothi Institute of Tech	Assistant Professor
5-8-2021 16:42:55	<a href="mailto:rsritha456@gmail.com">rsritha456@gmail.com</a>	0 / 1	Mrs. R Seetha J. B Institute of Engg. & Tech	Professor

The online FDP organized	The material provided was relevant and helpful	The presenter presented in adequate time and answered questions for them	The training experience will be useful in my work	The presenter was knowledgeable about the FDP topics	Overall how would you rate the FDP	Do you have any additional comments about the FDP or the frame work
5	5	5	5	5	5	5 Very well organised professional too
5	5	5	5	5	5	5 Need more days of such a faculty de
4	4	4	4	4	4	4 NO
4	5	4	4	5	5	4 Instresting session
5	5	5	5	5	5	5 Very very good
5	5	5	5	5	5	5 No
4	4	4	4	4	4	4 Wonderful webinars
5	4	5	4	4	5	4 Thank you
5	4	4	4	4	5	4 Excellent
4	4	4	4	4	4	4 Well planned and neatly organised
5	5	5	5	5	5	5 The FDP program was inspiring and
4	4	4	4	4	4	4 Nil
4	4	4	4	4	4	4 Well organised sessions
5	5	5	5	5	5	5 Excellent insights shared



# GLOBAL Institute of Engineering & Technology

Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad  
Recognized under section 2(f) of UGC Act 1956, An ISO 9001:2015 Certified Institution  
Chilkur (V), Moinabad (M), Ranga Reddy Dist. TS – 501504

## Department of Electronics and Communication Engineering

**GLOB04**

### A Five Day Faculty Development Program

On

### Recent and Emerging Trends in Wireless Communication

(25<sup>th</sup> -29<sup>th</sup> October, 2021 Through online mode)

### CERTIFICATE OF PARTICIPATION

This is to certify that *Mr. S Ravi* from Global Institute of Engineering & Technology has attended A Five Day Faculty Development Program on “Recent and Emerging Trends in Wireless Communication” from 25th to 29th Oct 2021 through OnlineMode.

Coordinator

(Faizur Rahman Babul)

Head of the Department

(G Ahmed Zeeshan)

Principal

(Dr. K Shivalingam)

# A REPORT

## ON

### FACULTY DEVELOPMENT PROGRAM

#### RECENT AND EMERGING TRENDS IN WIRELESS COMMUNICATION

A Five-Day Faculty Development Program on Recent and Emerging Trends in Wireless Communication was organized by the Department of Electronics and Communication Engineering. The Faculty Development Program was held in online mode through Zoom meeting from 25<sup>th</sup> to 29<sup>th</sup> October 2021 and its objective was to further enhance and strengthen the technical skills of the faculty in the field of Recent and Emerging Trends in Wireless Communication. The Program was attended by 14 faculty of Department of Electronics and Communication Engineering.

#### Day 1:

The inauguration of a Five-day Faculty Development Program was chaired by **Mr. G Ahmed Zeeshan**. Sir welcomed the gathering. Sir has emphasized the importance of the Faculty Development Programme for the participants in view of the growing importance of Recent and Emerging Trends in Wireless Communication. Sir expressed his expectations from the faculty participating in Program, to utilize the knowledge effectively & fully from the resource person as it will improve their skills. Furthermore, He expressed profound thanks and appreciation to the Management of GIET for its support. He briefly explained on ‘Overview on Recent and Emerging Trends in Wireless Communication’, The session was started with the topic on ‘**5G/6G Wireless Communication Systems**’, Sir has explained how Quantum computation is a rapidly growing lots of breakthroughs have been achieved during the past decades. Quantum computation is transitioning from an emerging branch of science into a mature research field in science and engineering.

The next session was chaired by **Mr. Zohaib Uddin, Technical Lead, Zeal Digital Solutions Pvt. Ltd., Hyderabad** on ‘**Codes for 5G Wireless**’ Sir has properly explained how LDPC and Polar codes for error correction, data channel and control channel.

#### Day 2:

On Second day, first session was taken by **Dr. Chandra Mohan, Professor of ECE, SITS**. Sir was delivered a lecture on ‘**Software Defined Networks**’ Sir explained how SDN centralizes control of your network, improving the network's flexibility and efficiency from 9:00 AM to 12:00 PM.

Next session was on ‘**Evolution of Cellular Communication Standards 1G -5G**’ from 01:00 PM to 04:00 PM by **Mr. Laxminarayan, Engineer, Data Point Pvt. Ltd., Hyderabad**. Sir has explain details about how cellular communication technology evolved and upgraded from 1G to 5G 01:00 PM - 04:00 PM .

#### Day 3:

On third day, first session started at 9:30 AM on ‘**5G: Challenges and Enabling Technologies** ’ by **Dr. Munna Swamy, Professor of ECE,GNIT**. In this session, sir spoke about Availability of

widely harmonized mobile spectrum is crucial for the success of 5G mobile communications, fulfilling the visions and requirements and delivering the full range of potential capabilities for 5G. from 9:00AM to 12:00PM.

Afternoon session was started at 1:00 PM by *Dr. Syed Abdul sattar, Professor of ECE,NSAKCET* on 'Design Techniques for 5G' he discuss in details how Antenna design techniques and measurement for 5G systems ,Multiple antennas for advanced transceivers of 5G systems, Multiband antenna operation for 5G systems works

#### Day 4:

The first session was started by *Mr. Laxminarayan, Engineer, Data Point Pvt. Ltd. Hyderabad* on 'MIMO & 5G Realization of microwave and millimetre-wave Devices for 5G wireless comm' he discusses potentials and challenges of the 5G heterogeneous wireless network (HetNet) which incorporates massive MIMO and mm Wave technologies. from 9:00AM to 12:00PM.

The next session started at 1:00PM by *Dr. Syed Abdul sattar, Professor of ECE, RITS* on 'Channel Models for Wireless Communication' discussed about different mathematical representation of the effects of a communication channel through which wireless signals are propagated

#### Day 5:

The session was started by *Dr. Syed Abdul sattar, Professor of ECE,NSAKCET*, on the topic 'Device-to-Device (D2D) communications' discussed about how radio technology that enables devices to communicate directly with each other, that is without routing the data paths through a network infrastructure from 9:00AM to 12:00PM.

The image shows a Zoom meeting grid with four participants. The top-left tile shows 'Faizur Rahman...' with a blue 'Ask to Unmute' button and a three-dot menu. The top-right tile shows a blue square with a white 'M' and 'Dr. Munna Swamy' below it. The bottom-left tile shows a small image of a white dog in a wooden bucket and 'Ishrath Unnisa' below it. The bottom-right tile shows 'S Ravi' with a blue 'Ask to Unmute' button and a three-dot menu. Each tile has a small red microphone icon in the bottom-left corner.

The next session started at 1:00PM by *Dr. Munna Swamy, Professor of ECE,GNIT* on ‘**Spectrum Sensing and Cognitive Radio**’ sir talked about improvement in spectrum sensing performance according to optimal threshold selection

The Faculty Development Program was concluded by Valedictory followed by feedback and certificate distribution to the participants.

**Sd/-**  
**Co- Ordinator**  
Mr. Faizur Rahman Babul  
Assistant Professor  
Department of ECE