

## A Report of five day FDP on

### “Recent Trends in Cognitive Radio in 5G Wireless Communication”

1.	Name of the Activity/Event	<b>Recent Trends in Cognitive Radio in 5G Wireless Communication</b>	
2.	Dates of Activity/Event	23-12-2019 to 28-12-2019	
3.	Organized by/Name of the committee	Department of ECE	
4.	Place of Activity/event	Vishweshwaraya Auditorium, B-Block, NEC Nellore	
5.	Resource person/guest/organization	Mr.P. Sudheer Babu, G. Gopi, BSNL	
6.	Timings of Event	09:30AM to 12:45PM 01:45PM to 04:30PM	
7.	Type of activity/Event	Demonstration	
8.	Activity/Event objectives	1. Enriching the skills of faculty towards research 2. To write the papers on their own.	
9.	Participation	Faculty	45
10.	General remarks	<ul style="list-style-type: none"> <li>• The Resource persons were enthusiastic to share their views</li> <li>• Few faculty were not utilizing in that extent</li> </ul>	
11.	Enclosures	1. Circular 2. Report with photos 3. Attendance Sheet	
12.	Signature of Incharge/Convener	Mrs. Syed Athika Sultana	

### Report:

The Narayana Engineering College, Nellore Department of ECE conducted a five week FDP on “Recent Trends in Cognitive Radio in 5G Wireless Communication” was organized from 23-12-19 to 28-12-19 at Vishweshwaraya Auditorium B-Block, NEC Nellore.

The objectives of this work shop is to enhance the 5G wireless communication among the faculty members towards their research.

In this session Dr.K.Murali , HOD of ECE addressed the gathering and introduced the resource person Mr. P. Sudheer Babu, DE, BSNL, Nellore to the gathering. Dr. G. Srinivasulu Reddy, Principal had said few words on 5G communication.

Later the resource person given the demonstration to the faculty about Introduction to communication and access techniques and about first generation and some examples.



*Inaugural of Faculty development program and demonstration on communication*



***Resource Person giving presentation on wireless communication***

On second day Mr. P. Sudheer Babu, DE, BSNL given his presentation on 1G,2G and 3G". He explains the concepts Global System for Mobile Architecture of GSM very much clear and CDMA.

On third day resource person given his presentation on "Fourth generation and MIMO". How these are useful in real time applications shown with examples. He also explains about Smart Antenna Array Processing Techniques and Multi-carrier CDMA.



On fourth day resource person given his presentation on " Device to device Communication in 5G systems ". How these are useful in real time applications shown with examples. He also explain Beam Division Multiple Access (BDMA) and D2D communication using Macro cell tier & Device tier



On fifth day resource person given his presentation on " Device relaying with controlled link establishment from the device and Direct D2D with controlled link establishment by the device ". How these are useful in real time applications like

- Cellular offloading
- Multi casting , video dissipation
- M2M communication
- Public Safety Communication
- In time of natural calamities
- Vehicle –to-Vehicle communication

Finally five day Faculty Development Program ended with a vote of thanks and group photo with principal .

