NARAYANA ENGINEERING COLLEGE::NELLORE
(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

REPORT ON "COMMUNICATION SYSTEMS-5GTRENDS"

1	Name of the Activity/Event	Seminar on "COMMUNICATION SYSTEMS- 5GTRENDS"		
2	Date of Activity/Event	4-4-2024		
3	Organized by/Name of the committee	Dept. of Electronics & Communication Engineering		
4	Place of Activity/event	Narayana Engineering College, Nellore		
5	Resource person/guest/organization	Mr. M. Muralidhar, Consultant ES, Systaldym, New Delhi.		
6	Type of activity/Event	Seminar(IIIC)		
7	Activity/Event Objectives	1. To understand the emerging technological trends in communication 2. To understand the trends in information communication network management 3. To know about technological applications transforming and shaping communication 4. Role of a communication engineer		
8	Participation	Students	Faculty	Total
		120	-	120
9	General remarks	The sessions are helpful to the students about the trends in communication systems and trends in 5G, and role of an engineer in communication field.		

A BRIEF DESCRIPTION OF THE EVENT:

Department of Electronics and Communication engineering has conducted a seminar on "Awareness Program on Career Development" under III Btech- Sec.A, and C for ECE students on 4-04-2024. The Resource Person for the event is Mr. Muralidhar, Consultant ES, Systaldym, Newdelhi.

The Head of the Department Dr. K. Murali introduced the resource person. The Resource person started his lecture by stating the communication systems and trends in 5G.

Resource Person Explaining about Communication Systems

III B. Tech Students-Sec. A and Sec. C

A smart communication system refers to a sophisticated and intelligent network or platform designed to facilitate seamless and efficient communication among various devices, individuals, or entities. This system leverages advanced technologies, such as artificial intelligence (AI), the Internet of Things (IoT), and data analytics, to enhance the speed, accuracy, and overall effectiveness of communication processes.

At its core, a smart communication system aims to overcome traditional communication challenges by incorporating intelligent features that adapt to user needs, optimize resource utilization, and improve overall connectivity. These systems are integral in modernizing and streamlining communication across diverse sectors, including business, healthcare, education, transportation, and more.

One key aspect of a smart communication system is its ability to harness the power of AI. Through machine learning algorithms, natural language processing, and other AI-driven capabilities, these systems can understand, interpret, and respond to user inputs in a more human-like manner. This results in improved user experiences, as the system can adapt to individual preferences and deliver personalized communication solutions.

Physical limitations on wireless communication channels impose huge challenges to reliable communication. Bandwidth limitations, propagation loss, noise and interference make the wireless channel a narrow pipe that does not readily accommodate rapid flow of data. Thus, researches aim to design systems that are suitable to operate in such channels, in order to have high performance quality of service. Also, the mobility of the communication systems requires further investigations to reduce the complexity and the power consumption of the receiver.

The integration of IoT technologies is another critical element in smart communication systems. IoT devices, ranging from smart phones and smart watches to sensors and actuators embedded in various objects, contribute to the creation of an interconnected environment. This interconnectedness enables real-time data exchange and communication between devices, paving the way for more efficient and responsive systems.

Furthermore, smart communication systems often leverage data analytics to extract meaningful insights from the vast amounts of information generated through communication channels. By analyzing patterns, trends, and user behavior, these systems can make data-driven decisions, predict future communication needs, and proactively address potential issues. This data-centric approach enhances the overall intelligence and adaptability of the communication system.

Later the resource person clarified the doubts asked by the students and the department of ECE expressed gratitude to the resource person for giving valuable suggestions regarding various job roles and current trends in communications.