

Wireless Communication

Written by Administrator
Saturday, 07 November 2009 07:40 -

Subject Code

:

06TE73

IA Marks

:

25

No. of Lecture Hrs/ Week

:

04

Exam Hrs

:

Wireless Communication

Written by Administrator
Saturday, 07 November 2009 07:40 -

03

Total no. of Lecture Hrs.

:

52

Exam Marks

:

100

PART - A

Unit - 1

Introduction to wireless telecommunication systems and Networks, History and Evolution
Different generations of wireless cellular networks 1G, 2g, 3G and 4G networks.

Wireless Communication

Written by Administrator
Saturday, 07 November 2009 07:40 -

6 Hours

Unit - 2

Common Cellular System components, Common cellular networks components, Hardware and software, views of cellular networks, 3G cellular systems components, and Cellular component identification Call establishment.

7 Hours

Unit - 3

Wireless network architecture and operation, Cellular concept Cell fundamentals, Capacity expansion techniques, Cellular backbone networks, Mobility management, Radio resources and power management Wireless network security.

7 Hours

Unit- 4

GSM and TDMA techniques, GSM system overview, GSM Network and system Architecture, GSM channel concepts, GSM identifiers.

6 Hours

PART – B

Unit - 5 GSM system operation, Traffic cases, Call handoff, Roaming, GSM protocol architecture. TDMA systems.

GSM system operation, Traffic cases, Call handoff, Roaming, GSM protocol architecture. TDMA systems.

6 Hours

Unit - 6

CDMA technology, CDMA overview, CDMA channel concept CDMA operations.

8 Hours

Unit -7

Wireless Modulation techniques and Hardware, Characteristics of air interface, Path loss models, wireless coding techniques, Digital modulation techniques, OFDM, UWB radio techniques, Diversity techniques, Typical GSM Hardware.

6 Hours

Wireless Communication

Written by Administrator
Saturday, 07 November 2009 07:40 -

Unit - 8 Introduction to wireless LAN 802.11X technologies, Evolution of Wireless LAN Introduction to 802.15X technologies in PAN Application and architecture Bluetooth Introduction to Broadband wireless MAN, 802.16X technologies.

6 Hours

Text Book:

1. **Wireless Telecom Systems and networks** – Mullet, Thomson Learning 2006.

Reference Books:

1. **Mobile Cellular Telecommunication** – Lee W.C.Y, MGH, 2002.
2. **Wireless communication** – D P Agrawal: 2nd Edition Thomson learning 2007.

Wireless Communication

Written by Administrator
Saturday, 07 November 2009 07:40 -

Fundamentals of Wireless Communication – David Tse, Pramod Viswanath, Cambridge