

Lesson Plan

Name of the Faculty : Er. Chander Mohan (Theory/Practical)
Discipline : Electronics and Communication Engineering
Semester : 8th
Subject : Wireless & Mobile Communication (ECE-402N)
 Wireless & Mobile Communication Lab (ECE-408N)

Lesson Plan Duration : 15 weeks (from January, 2020 to April, 2020)

****Work Load (Lecture / Practical) per week (in hours)** : Lectures-04, Practical-03

| Week | Theory | | Practical | |
|-----------------|------------------|---|-----------------|---|
| | Lecture Day | Topic (including assignment / test) | Practical Day | Topic |
| 1 st | 1 st | Evolution of mobile radio communications | 1 st | Introduction to CommSim and familiarization with its basic functions. |
| | 2 nd | Examples of wireless comm. Systems | | |
| | 3 rd | Paging systems and Cordless telephone systems | | |
| 2 nd | 4 th | Comparison of various wireless systems | 2 nd | To study and simulate the Amplitude Modulation. |
| | 5 th | Second generation cellular networks | | |
| | 6 th | Third generation wireless networks | | |
| 3 rd | 7 th | Wireless in local loop | 3 rd | To study and simulate the Amplitude demodulation. |
| | 8 th | Wireless local area networks | | |
| | 9 th | Bluetooth and Personal Area networks. | | |
| 4 th | 10 th | Spectrum Allocation, basic Cellular Systems | 4 th | To study and simulate the Frequency Modulation. |
| | 11 th | Performance Criteria, Operation of cellular systems | | |
| | 12 th | Analog cellular systems | | |
| 5 th | 13 th | Digital Cellular Systems | 5 th | First Internal Viva |
| | 14 th | Frequency Reuse | | |
| | 15 th | Channel assignment strategies | | |
| 6 th | 16 th | Channel assignment strategies | 6 th | To study and simulate the Frequency Demodulation. |
| | 17 th | Handoff Strategies | | |
| | 18 th | Handoff Strategies | | |
| 7 th | 19 th | Interference and system capacity | 7 th | To study and simulate the Amplitude shift keying. |
| | 20 th | Tracking and grade off service | | |
| | 21 st | Improving coverage and capacity | | |
| 8 th | 22 nd | Introduction to Multiple Access | 8 th | To study and simulate the Frequency shift keying |
| | 23 rd | FDMA | | |
| | 24 th | TDMA | | |

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|------------------|------------------|-------------------------------------|------------------|---|
| 9 th | 25 th | Spread Spectrum multiple Access | 9 th | Second Internal Viva |
| | 26 th | Space division multiple access | | |
| | 27 th | Packet | | |
| 10 th | 28 th | Ratio capacity of a cellular system | 10 th | To study and simulate the Phase shift keying |
| | 29 th | GSM | | |
| | 30 th | GSM | | |
| 11 th | 31 st | GSM | 11 th | Implementation of M-PSK transmitter using SDR concept. |
| | 32 nd | IS-95 CDMA | | |
| | 33 rd | IS-95 CDMA | | |
| 12 th | 34 th | IS-95 CDMA | 12 th | Implementation of M-PSK receiver using SDR. |
| | 35 th | UMTS-IMT-2000 | | |
| | 36 th | UMTS-IMT-2000 | | |
| 13 th | 37 th | UMTS-IMT-2000 | 13 th | Implementation of M-QAM transmitter using SDR. |
| | 38 th | Signaling | | |
| | 39 th | Signaling | | |
| 14 th | 40 th | Call Control | 14 th | Design two-dimensional convolution to perform image edge detection. |
| | 41 st | Call Control | | |
| | 42 nd | Mobility Management | | |
| 15 th | 43 rd | Mobility Management | 15 th | Third Internal Viva |
| | 44 th | Location Tracing | | |
| | 45 th | Location Tracing | | |

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