NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

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NPTEL Video Course - Electrical Engineering - NOC: Evolution of Air Interface towards 5G
Subject Co-ordinator - Prof. Suvra Sekhar Das
Co-ordinating Institute - IIT - Kharagpur
Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable
Lecture 1 - Evolution of wireless Communication
Lecture 2 - Evolution of wireless Communication Standards From 2G to 5G
Lecture 3 - Evolution of wireless Communication Standards From 2G to 5G (Continued...)
Lecture 4 - Evolution of wireless Communication Standards From 2G to 5G (Continued...)
Lecture 5 - Evolution of wireless Communication Standards From 2G to 5G (Continued...)
Lecture 6 - Requirements and operating scenarios of 5G
Lecture 7 - Requirements and operating scenarios of 5G (Continued....)
Lecture 8 - 5G scenarios
Lecture 9 - Ultra reliable low latency communication
Lecture 10 - Designing 5G new radio
Lecture 11 - Fundamental Framework for waveform analysis
Lecture 12 - Fundamental Framework for waveform analysis (Continued...)
Lecture 13 - Waveform Design Aspects of 2G
Lecture 14 - Waveforms in 3G
Lecture 15 - Waveforms in 3G (Continued...)
Lecture 16 - Waveform in 4G and 5G (OFDM)
Lecture 17 - Waveform in 4G and 5G (OFDM) (Continued...)
Lecture 18 - Waveform in 4G and 5G (OFDM) (Continued...)
Lecture 19 - Waveform in 4G and 5G (OFDMA)
Lecture 20 - Waveform in 4G and 5G (OFDMA, SCFDMA, SCFDE)
Lecture 21 - Waveform in 4G and 5G (SCFDMA Continued...)
Lecture 22 - Waveform in 5G
Lecture 23 - Waveform in 5G Numerology
Lecture 24 - Frame Structure in 5G NR
Lecture 25 - Numerology in 5G and adaptive subcarrier bandwidth
Lecture 26 - Numerology in 5G (Continued...)
Lecture 27 - Waveforms beyond 5G
Lecture 28 - Waveforms beyond 5G (Continued...)
Lecture 29 - Waveforms beyond 5G (Continued...)
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Lecture 30 - Waveforms beyond 5G (Continued...)

Lecture 31 - Waveform beyond 5G (Precoded GFDM)

Lecture 32 - Comparison of waveforms

Lecture 33 - Channel models for performance evaluation - Part I

Lecture 34 - Channel models for performance evaluation - Part II

Lecture 35 - Channel models for performance evaluation - Part III

Lecture 36 - MIMO Signal Processing (Receive Diversity)

Lecture 37 - MIMO Signal Processing

Lecture 38 - MIMO Signal Processing (Capacity)

Lecture 39 - MIMO Signal Processing (Capacity and Massive MIMO)

Lecture 40 - Hybrid beamforming (mmWave)
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