NPTEL Video Course - Electrical Engineering - NOC:Mathematical Aspects of Biomedical Electronic System Design

Subject Co-ordinator - Prof. Chandramani Singh

Co-ordinating Institute - IISc - Bangalore

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

Lecture 1 - Introduction to Signals and Systems
Lecture 2 - MATLAB Demo on Signal Types and Moving Average System
Lecture 3 - Microfabrication Basics for Biomedical Systems
Lecture 4 - Fluid Flow in Body Lumen
Lecture 5 - Fourier Series
Lecture 6 - Continuous Time Fourier Transform
Lecture 7 - Biological Tissues as disordered systems
Lecture 8 - Introduction to electrical equivalent circuit models for biological systems
Lecture 9 - Discrete Time Fourier Transform and Sampling
Lecture 10 - Percolation Theory and applications in biological tissues
Lecture 11 - Electrical properties of cells and tissues revisited: Examples and Applications
Lecture 12 - Linear Algebra - I
Lecture 13 - MATLAB Live Demo on Moving average and signal acquisition
Lecture 14 - Oxidation and Thickness Characterization
Lecture 15 - Basics of Photolithography with Process flow examples
Lecture 16 - Linear Algebra - II
Lecture 17 - Introduction to Biomedical Optics
Lecture 18 - Optical Properties of Tissues and Mathematical modelling
Lecture 19 - System of Linear Equations
Lecture 20 - Scaling Laws
Lecture 21 - Thermal Properties of a tissue
Lecture 22 - Introduction to Probability
Lecture 23 - Tissue Electrode Interface
Lecture 24 - Thermal Properties of a tissue and cells
Lecture 25 - Probability: Random Variables and CDF
Lecture 26 - Basics of Silicon, Silicon Dioxide for Microfabrication Process
Lecture 27 - Mechanical Properties of human brain tissues and modelling
Lecture 28 - Probability: Important measures and generating functions
Lecture 29 - Near Infrared Spectroscopy and Ultrasound Techniques

----
Get DIGIMAT For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

http://www.digimat.in

```
Lecture 30 - Thermal Properties of Tissues and Modelling
Lecture 31 - Multisim Simulations for Biomedical Signal Conditioning Circuit
Lecture 32 - Cleanroom Entry Demonstration
Lecture 33 - Spin Coating Demonstration
Lecture 34 - Common Random Variables
Lecture 35 - Introduction to signal Conditioning circuits for biomedical devices
Lecture 36 - Siganl Conditioning circuits units and design
Lecture 37 - E Beam Evaporation System Demonstration
Lecture 38 - Joint and Marginal Probability Distribution
Lecture 39 - Temprature Sensor Interfacing Analysis
Lecture 40 - Demo of Temprature data acqusitio system using LabVIEW
Lecture 41 - Recent Trends in Biomedical Electronic System Design
Lecture 42 - Aspects of Biomedical Electronics System Design
```

Get DIGIMAT For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

http://www.digimat.in