NPTEL Video Course - Physics - NOC:Physics of Renewable Energy Systems

Subject Co-ordinator - Prof. Amreesh Chandra

Co-ordinating Institute - IIT - Kharagpur

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

Lecture 30 - Construction, development and classification of Supercapacitors
Lecture 31 - Electric double layer capacitors (EDLCs)
Lecture 32 - Pseudocapacitors
Lecture 33 - Electrochemical Techniques for Supercapacitors and Batteries
Lecture 34 - From material to a supercapacitor device
Lecture 35 - Effect of temperature on supercapacitor performance
Lecture 36 - Effect of external magnetic field and frequency on supercapacitors
Lecture 37 - Introduction to Fuel Cells
Lecture 38 - Explanation of Fuel cell systems
Lecture 39 - Microbial Fuel Cells
Lecture 40 - Nanotechnology and Nanomaterials for Energy Applications
Lecture 41 - Synthesis of nanomaterials
Lecture 42 - Carbon- and metal-oxide based nanomaterials
Lecture 43 - Nanocatalysts
Lecture 44 - Characterization techniques for solid materials
Lecture 45 - X-ray diffraction method
Lecture 46 - UV-Visible Spectroscopy
Lecture 47 - Fourier Transform Infrared Spectroscopy
Lecture 48 - SEM, TEM and XPS
Lecture 49 - Particle size and zeta potential analysis
Lecture 50 - BET analysis
Lecture 51 - Electrochemical Impedance Spectroscopy