

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

NPTEL Video Course - Electrical Engineering - NOC:DC Microgrid

Subject Co-ordinator - Prof. Avik Bhattacharya

Co-ordinating Institute - IIT - Roorkee

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

Lecture 1 - Overview of Microgrids  
Lecture 2 - Concept of Microgrids  
Lecture 3 - Microgrid and distributed generation  
Lecture 4 - Microgrid vs Conventional Power System  
Lecture 5 - AC and DC Microgrid with Distributed Energy Resources (AC Microgrid Part)  
Lecture 6 - AC and DC Microgrid with Distributed Energy Resources (AC Microgrid Part) (Continued...)  
Lecture 7 - Power Electronics for Microgrid  
Lecture 8 - Power Electronic Converters in Microgrid Applications  
Lecture 9 - Power Electronic Converters in Microgrid Applications (Power Electronic for Interfacing )  
Lecture 10 - Power Electronic Converters in Microgrid Applications (Converter Modulation Techniques)  
Lecture 11 - Modeling of converters in microgrid power system (AC/DC and DC/AC Converters Modeling)  
Lecture 12 - Modeling of Power Converters in Microgrid Power System (DC/DC Converter Modeling and Control)  
Lecture 13 - Modeling of Renewable Energy Resources (Modeling of Wind Energy System)  
Lecture 14 - Modeling of Renewable Energy Resources (Modeling of Photovoltaic System)  
Lecture 15 - Modeling of Energy Storage System  
Lecture 16 - Microgrid Dynamics and Modeling  
Lecture 17 - Microgrid Dynamics and Modeling (Continued...)  
Lecture 18 - Microgrid Operation Modes and Standards - Part I  
Lecture 19 - Microgrid Operation Modes and Standards - Part II  
Lecture 20 - Microgrid Control Architectures  
Lecture 21 - Microgrid Control Architectures (Continued...)  
Lecture 22 - Intelligent Microgrid Operation and Control  
Lecture 23 - Intelligent Microgrid Operation and Control (Continued...)  
Lecture 24 - Intelligent Microgrid Operation and Control (Continued...)  
Lecture 25 - Energy Management in Microgrid System (Continued...)  
Lecture 26 - DC Microgrid System Architecture and AC Interface  
Lecture 27 - DC Microgrid System Architecture and AC Interface (Continued...)  
Lecture 28 - DC Microgrid System Architecture and AC Interface (Continued...)  
Lecture 29 - DC Microgrid Dynamics and Modeling

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- Lecture 30 - DC Microgrid Dynamics and Modeling (Continued...)
- Lecture 31 - Control of DC Microgrid System
- Lecture 32 - Control of DC Microgrid System (Continued...)
- Lecture 33 - Applications of DC Microgrids
- Lecture 34 - Stability in Microgrid
- Lecture 35 - Stability Analysis of DC Microgrid
- Lecture 36 - Stability Analysis of DC Microgrid (Continued...)
- Lecture 37 - DC Microgrid stabilization strategies (Passive damping method)
- Lecture 38 - DC Microgrid Stabilization Strategies (Impedance/Admittance stability criteria)
- Lecture 39 - DC microgrid stabilization using nonlinear Techniques
- Lecture 40 - General Summary of DC Microgrids