

# First Graduate Course in Power Systems



# Existing EE senior level course in Power Systems

- Changing Landscape, Distributed generation (DG)
- Energy Sources, Renewables, Environmental Consequences
- Synchronous generators
- AC Transmission Lines and Cables; HVDC Lines
- Power Flow
- Power Electronics based FACTS Controllers
- Types of loads; Power Quality
- Voltage Stability
- Transient Stability
- Interconnected Systems
- Short-Circuit Faults, Relays, Circuit Breakers
- Switching Transients, Surge Arresters

# Graduate Courses connected to first course in Power Systems

- Relaying (3 wks)
- Energy Markets (1 wk)
- Economic Dispatch and Optimum Power Flow (3 wk)
- Communication in Power Systems (1 wks)
- Large-Scale Integration of Renewable Energy ( 1 wk)
- HVDC Systems (2 wks)
- Voltage Stability (1 wk)
- Dynamic Stability and Inter-area Oscillations (1 wk)
- FACTS Devices (1 wk)

