



**Knowledge Network of
Indian Institute of Technology Gandhinagar
TEQIP-III Initiative (MHRD, Govt. of India, NPIU & World Bank)**

Online Short-Course on Role of Power Electronics in Power Engineering

Date: March 8-12, 2021 (5-days)

Mode: Online

Target group: Faculty

For improving energy efficiency, power electronic converters are used for processing and controlling electrical power. The role of power electronic converters in power system and electric drives is the theme of this program. Following topics would be discussed.

- Analysis of power electronic circuits
- Wind energy conversion system
- High voltage DC and Flexible AC transmission systems
- Active and reactive power control
- Active power filter
- Motors for electric vehicle
- Wireless charging for EV application
- Field oriented control
- Brushless DC motor and PM Synchronous Motor
- Switched reluctance motor and Synchronous reluctance motor

Theory would be supported by few experimental demonstrations and simulations.

Tentative schedule for this program

(a) Morning session: Lectures for 3 hours

(b) Afternoon session: Lab or Tutorial session for 2 hours

Coordinator:

Prof. Ragavan K

Instructors:

Prof. S. Rajendran, Prof. Naran M. Pindoriya and Prof. Ragavan K