

## Report on Augmentation Course

Organized by  
**Department of Electronics & Telecommunication**

1. **Program type:** Augmentation Course on Power Electronics - Industrial Applications
2. **Date & Time:** 10/03/2020 to 15/04/2020 from Academic Session
3. **Venue:** Online (due to Pandemic)
4. **No. of students registered/appeared:** 41
5. **Target students:** TE E&TC
6. **Instructor details:** Dr. Varsha Degaonkar
7. **Objectives:**
  1. To introduce students to different power devices used in the industry.
  2. To study different motors with drive circuits used in the industry.
  3. To understand protection circuits used in the industry.
8. **Outcomes:**
  1. Demonstrate the use of different power devices in different industrial applications.
  2. Analyze different motors with driver circuits used in the industry.
  3. Implementation of over voltage / over current protection circuit.

### Photo gallery:

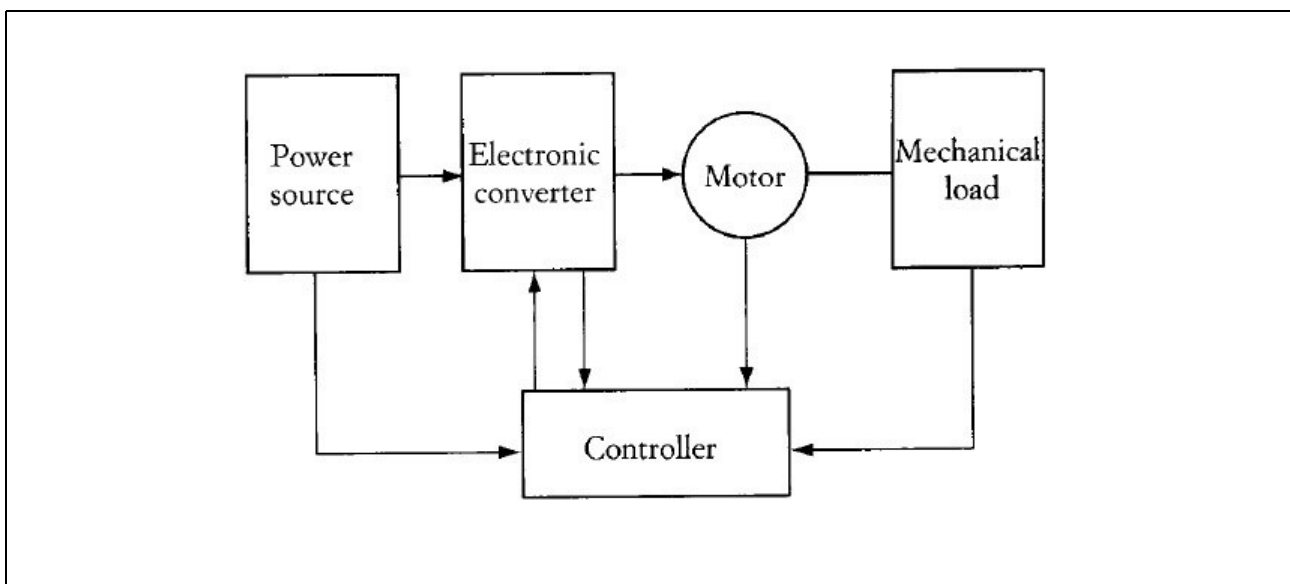


Image 1: Applications of Power Electronics in Various Fields

## Applications of Power Electronics in Various Fields

### 1. Aerospace

Space shuttle power supplies

Satellite power supplies

Aircraft power system

2. **Commercial:-** heating, air-conditioning power supplies, computer, office equipment, elevators, light dimmer, uninterruptible power supplies, central refrigeration.

### 3. Industrial:-

Arc and Industrial furnaces, blowers and fans, pumps and compressors, industrial lasers, transformer tap changers, rolling mills, textile mills, excavators, cement mills, welding

Image 2: Applications of Power Electronics in Various Fields

## Applications of Power Electronics in Various Fields

### 4. Residential:-

Air conditioning, cooking, lighting, refrigerators, electric-door openers, dryers, fans, personal computers, vacuum cleaners, washing machine, food mixers

### 5. Telecommunication:-

Battery chargers, power supplies

### 6. Transportation:-

Battery chargers, traction control of electric vehicles, electric locomotives, street cars, trolley buses, subways, automotive electronics.

### 7. Utility systems:-

High voltage DC Transmission, Excitation systems, VAR compensation, Static circuit breakers, fans and boiler feed pumps, supplementary energy systems(solar, wind)

Image 2: Applications of Power Electronics in Various Fields