



## Power Electronics and Electric Machinery Research Facility Overview

The PEEMRC encompasses more than 9,000 square feet of space for developing, building, and testing the next generation prototypes of power electronics and electric machine technology. The facility houses a broad spectrum of state-of-the-art measurement equipment along with a rapid prototyping mechanical fabrication shop.

### Dynamometer Test Cells

- 150 hp, 7,500 rpm eddy current brake
- 400 hp, 6,500 rpm eddy current brake
- 100 hp, 10,000 rpm 4-quadrant
  - Digital control for precise regulation of speed or torque

### Power Supplies

- 600 Vdc, 600 A, 4-quadrant power supply
- Multiple dc supplies
  - Ranging from 45-480 V; 85-2,000 A
- Current amplifiers
- Allen Bradley Variacs

### 1.2 kW Fuel Cells

### Motor Drives

- Danfoss inverter
- ABB drive
- Numerous commercial inverters



### Environmental Laboratory Hood

### Environmental Chamber

- Humidity control capability (-50 to 180°C)

### Programmable Environmental Oven (750°)

### Ultra High-Speed Rotational Equipment Safety Tank

- 48-inch diameter, 33-inch height

### Points of Contact:

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