

SMART GRID

SMART GRID TECHNOLOGY PROGRAM



Energy and Power

- Types of energy
- Potential and kinetic energy
- Voltage and current
- Electrical loads
- Electrical power consumption
- Power math
- Making electrical connections

Smart Grid Operations

- The power grid
- Power quality and outages
- Generation and storage options
- Distributed power equipment/cogeneration
- Energy distribution vs. bulk storage
- Demand response & power storage management

Functions of a Smart Grid

- Smart grid communications
- Meter management systems
- Smart meters
- Residential, municipal and commercial grids
- Support for demand & automated adjustments
- Smart grid development
- Research and regulation
- Dealing with renewable energy

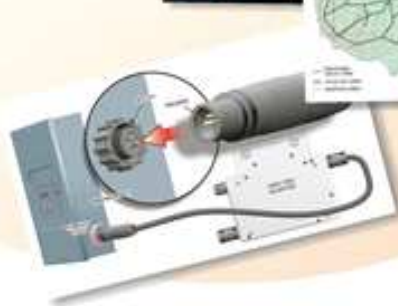
Building Codes and Compliance

- National Electrical Codes
- Underwriters Laboratories
- EPA
- OSHA
- National Fire Protection Association

Understanding Blueprints

- Schematic drawings
- Working drawings
- Symbols and scaling

Reinforced with Hands-on Labs



**HANDS-ON
LAB GUIDE**



STEM
SCIENCE
TECHNOLOGY
ENGINEERING
MATHS

