Frequently Asked Questions (FAQs)

1. What is Power Mechanics Engineering Technology?

Power Mechanics Engineering Technologies is an applied engineering discipline concerned with the design, operation, maintenance, and development of mechanical and energy systems, with a strong emphasis on energy efficiency and sustainability. The department offers two specialized branches: **Refrigeration and Air Conditioning Technologies** and **Renewable Energy Technologies**. Students acquire the knowledge and practical skills required in areas such as HVAC systems, solar energy, wind energy, energy conversion, thermal power systems, and sustainable energy technologies, preparing them to meet the evolving demands of industry and technological advancement.

2. What courses do students study in the department?

Students study a comprehensive curriculum that combines theoretical knowledge with practical and laboratory experience. Core courses include Engineering Mathematics, Physics, Engineering Drawing, Thermodynamics, Fluid Mechanics, Heat Transfer, Measurements and Control, Internal Combustion Engines, Turbines, Refrigeration and Air Conditioning Systems, Solar Energy Technologies, Renewable Energy Systems, and Energy Efficiency. In addition, students complete specialized laboratory courses and engineering projects that develop their analytical, design, and problem-solving skills.

3. What career opportunities are available for graduates of the Department of Power Mechanics Engineering Technology?

Graduates enjoy a wide range of career opportunities in both the public and private sectors, including:

- Thermal and electrical power generation plants.
- Oil, gas, and petrochemical industries.
- HVAC (Heating, Ventilation, Air Conditioning, and Refrigeration) design, installation, operation, and maintenance companies.
- Renewable energy companies specializing in solar and wind energy projects.
- Manufacturing plants, industrial facilities, and maintenance and operation departments.
- Engineering consulting firms and construction companies.
- Research institutions and universities, as well as opportunities for self-employment and establishing specialized engineering businesses.

4. Does the department provide practical training for students?

Yes. The Department of Power Mechanics Engineering Technology places strong emphasis on practical education. Students receive extensive hands-on training in well-equipped engineering laboratories and workshops, particularly those dedicated to refrigeration and air conditioning systems and renewable energy technologies. In addition, students participate in summer training programs at government institutions and industrial companies, enabling them to apply theoretical knowledge in real-world engineering environments, gain valuable practical experience, and develop professional skills in system operation, maintenance, and engineering design.