The BRITISH UNIVERSITY IN EGYPT

FACULTY OF ENERGY & ENVIRONMENTAL ENGINEERING

Renewable Energy – Mechanical Power Engineering Programme

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Program Focus:

Renewable Energy Program – Mechanical Power Engineering (RENM) focuses on fluid mechanics, thermodynamics and heat transfer science and applications as well as sustainable energy aspects related to these major branches of applied engineering. The study of various renewable energy sources and technologies within the specialism of RENM, e.g. solar thermal, hydropower and wind energy engineering, is considered as a plus for RENM graduates which assists them find jobs in the sustainable energy field.

Job Opportunities:

Market opportunities include, but not limited to the following:

- Conventional and renewable energy power plants,
- HVAC&R (Heating, Ventilation, Air Conditioning & Refrigeration) systems,
- Energy efficiency projects and energy audits.

Modules:

Students through their study years cover a suit of modules that cover the basics as well as the applications of the renewable energy – mechanical power engineering field such as (but not limited to):

- Fluid mechanics
- Thermodynamics
- Heat transfer
- Solar thermal energy
- Concentrated solar power
- Solar PV energy
- Wind energy
- Combustion and fuels
- Renewable energy policy
- Hydrology
- Hydropower
- Tidal and wave energy
- Energy storage technologies
- Alternative fuels
- Risk analysis
- Turbomachinery systems

Research:

Faculty members, staff, and students are conducting research on various fronts of the energy field such as:

- Solar thermal heat production and storage.
- Sustainable desalination technologies
- Photovoltaic thermal technologies