Energy-related graduation projects 2020

1. **Graduation Projects of Electrical and Energy Engineering Department- Smart Village Campus**

https://aast.edu/en/colleges/coe/smartvillage/dept/contenttemp.php?page_id=52900035

- **Academic Year 2019-2020**
  - ➢ Modeling, Analysis, Fabrication and Experimental Investigation of Small Horizontal Axis Wind Turbine
  - ➢ Digital IoT Based Multi-Function Relay
- **Academic Year 2020-2021**
  - ➢ Planning and designing a long-term charger positioning plan in Egypt and Implementation of a commercial low-cost Electric Vehicles Level 2 charging.
  - ➢ Blind Solar Tracker.
  - ➢ Smart Low Voltage Switch Gear
  - ➢ Solar Energy System with IOT Automation
  - ➢ Optimization System of Environmentally Friendly Micro Grids.

2. **Graduation Projects of Marine Engineering Department-Abukir campus (2020-2021)**

https://aast.edu/en/colleges/coe/alex/dept/contenttemp.php?page_id=4800011

- ➢ **Ocean thermal energy application technologies for Autonomous Underwater Vehicle**

Energy-related graduation projects 2021

1. Graduation Projects of Electrical and Control Engineering Department-Abukir campus (2021-2022)

https://aast.edu/en/colleges/coe/alex/dept/contenttemp.php?page_id=4500057

- ➢ Electric Automated Guided Vehicle
- ➢ Solar powered CCTV system
- ➢ Energy Management System for Smart Hotel Project

2. Graduation Projects of Mechanical Engineering Department-Abukir campus (2021-2022)

https://aast.edu/en/colleges/coe/alex/dept/contenttemp.php?page_id=5300011

- ➢ Irrigation system combined with solar panel
- ➢ Desalination power and hydrogen production using fuel cell
- ➢ New methods for improving the efficiency of photovoltaic
- ➢ Improving the productivity of solar still water desalination
- ➢ Hybrid vertical axis wind turbine
- ➢ Design and economic feasibility of a solar powered atmospheric air water generator
- ➢ Design of geothermal –solar combined chimney power plant for continuous power generation

3. Graduation Projects of Marine Engineering Department-Abukir campus (2021-2022)

https://aast.edu/en/colleges/coe/alex/dept/contenttemp.php?page_id=4800011

- ➢ **Energy-Efficient Ship Operation through the Ship Speed Prediction**