Mahmoud Refaat Mohammed El-Ghazaly

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PERSONAL INFORMATION:

Gender : Male
Nationality : Egyptian
Social status : Married
Military Status : Started 2016- Finished 2017

RESEARCH INTERESTS:

Renewable Power Generation, Solar Photovoltaic, Power Electronics, Electrical Power Systems, Programming with MATLAB, Electric Motors Drive (Modeling, Analysis, and control) and PLC Automation.

WORK EXPERIENCE:

29/6/2016-Present **Teaching Assistant**

- EE Department, Faculty of Eng., Assiut University, Assiut, Egypt.
- Supervision of graduation projects in the fields of Renewable Energy, Power System Distribution, and High Voltage.
- Work in research projects (Renewable Energy, Power Electronics Control systems, PLC Automation Power Systems).
- Help students to understand their lessons.

EDUCATION AND TRAINING:

28/9/2017-22/4/2020 **M. Sc. in Electrical Engineering**

- EE Department, Faculty of Eng., Assiut University, Assiut, Egypt.
- **General**

  - Solar Power in Power Systems.
  - Electrical Power System Quality.
  - Control System.
  - Power Electronics.
  - Mathematical Engineering.

- **Occupational**

  Thesis title: A New Formulation of "Perturb and Observe" Method for Maximum Power Tracking in PV Systems.

20/9/2010-30/7/2015 **B. Sc. in Electrical Engineering**

- EE Department, Faculty of Eng., Assiut University, Assiut, Egypt.
- **General**

  - English Language, Mathematics and Physical Education.
  - Overall Rating: Excellent with honors.
  - Graduation project: Renewable Energy (getting the full mark).

- **Occupational**

  - Electric Circuits (Analysis, Design).
  - Electrical Power System (Analysis, Control, HVDC, FACTS).
  - Electronics-Programming Skills (MATLAB, C++).
  - Renewable Energy (PV, Wind).
  - Power Electronics.
  - Automation (PLC).
  - Industrial Measurement Systems.

30/8/2014-6/9/2014 **Khalda Petroleum Company training**

- **Occupational**

  - Solar Energy Generation.
  - Electrical Power Control Systems.
  - Advanced Protection Systems.
  - Electric Machines Maintenance.

6/7/2013-25/7/2013 **Egypt Aluminum Company training**

- **Occupational**

  - HVDC and HVAC Engineering.
  - Central Control Systems.
  - Advanced Protection Systems.
  - Advanced Power Electronics.
  - Electric Transformers Maintenance.

PERSONAL SKILLS:

Mother Tongue(s) Arabic

Other Language(s) English

Communication Skills

- Working in team
- Making good presentation of my ideas

Job-related Skills

- Explaining of problems in simple ways.
- Able to develop ideas of the students.
- Difficult problems solving.
- Experience in carrying out experimental research.
- Excellent researches skills.
- Welcome with student's discussions.

Computer Skills

- Windows package (7, 8 and 10).
- Microsoft office package (97-2019).
- Internet facilities and handling.
- Good Knowledge of MATLAB (SIMULINK).

Soft Skills

- Problem Solving skills, team leaders and self-starters.
- Skilled in working with own hands.
- Skilled in working through a research group.
- Self-Motivated.
- Excellent Communication and Interpersonal Skills.
- Good with computers and internet.
- Self-learning.

ADDITIONAL INFORMATION:

Projects

1- Improvement of a Small-Scale PV System, 2015.

This project introduced a new method for improving the PV module efficiency by reducing its operating temperature. The project uses a closed path of cooling water around the back surface of the module.

2- Design a Solar-Powered Electric Feeding System for an Educational Building, 2017.

In this project, A network is designed to feed the building with electricity generated from the solar energy only during the working period. The system is completely dependent on the PV modules and the converter where the batteries were abandoned in this system.

3- Design an Irrigation System of a Farm Depending on the Solar Energy, 2018.

This integrated system does not depend on the electrical grid. In this system, the sizing of the PV modules has been made exactly. The main components are PV modules, converter, and the submergible pump. The was no need for the batteries in this system where the irrigation is during the day only.

4- Design a Distribution System of a New University Buildings, 2019.

The main objective of this project is to introduce an efficient distribution system including lighting, sockets, and power sockets of a new educational building.

Publications

[1] Mazen Abdel-Salam, Mohamed Th El-Mohandes, and Mahmoud El-Ghazaly. "An Efficient Tracking of MPP in PV Systems Using a Newly-Formulated P&O-MPPT Method Under Varying Irradiation Levels." Journal of Electrical Engineering & Technology, vol. 15. no. 1, pp. 501-513, 2020.

Citations

[1] The award of Prof. El-Wardany for excellence in Engineering Sciences, 2012/2013 at Assiut University, Assiut, Egypt.

[2] The award of Prof. Badawy for excellence in Power System Engineering, 2013/2014 at Assiut University, Assiut, Egypt.

[3] The award of Prof. Azoz for excellence in Power System Engineering, 2013/2014 at Assiut University, Assiut, Egypt.

[4] The award of Prof. El-Harras for excellence in Electric Machines Engineering, 2013/2014 at Assiut University, Assiut, Egypt.

REFERENCES:

Prof. Mazen Abdel-Salam, Electrical Engineering Department, Faculty of Engineering, Assiut University, Assiut, Egypt. (mazen2000as@yahoo.com).