**1. Name: Ahmed Hussain Elmetwaly Abdelgalil**, Assistant Professor, Department of Electrical Power and Machines Engineering, Higher Institute of Engineering, Elshorouk Academy.

#### 2. Degrees:

- B.S. (Electrical Power and Machines Engineering) Higher Institute of Engineering, Elshorouk Academy, Elshorouk City, Cairo, Egypt.
- M.S. (Electrical Power and Machines Engineering) Portsaid University, Portsaid, Egypt. 2015
- Ph.D. (Electrical Power and Machines Engineering) Portsaid University, Cairo, Egypt. 2020

## 3. Years of Service on Faculty: 15

• 08/2020 - present Assistant Professor.

# 4. Other Experience:

- 08/2022 08/2024: Participation with the Egyptian Chinese Collage for Applied Technology (ECCAT) as a joint supervision of graduation projects in the field of Robotics design and implementation.
- 09/2021 06/2024: Training many faculty members and teaching assistant on the quality insurance platforms.

## **5. Consulting Activities (selected)**

- Design and supervision of distribution system and light current systems at Riviera, Giza Governorate (2018-2022).
- Design and supervision of distribution system and light current systems at Hussain Rady Language School, Giza Governorate (2017-2019).

## 6. States in which registered:

• Cairo, Egypt.

## 7. Principal publications of last 5 years (selected):

- H. Elmetwaly, A. A. Eldesouky and A. A. Sallam, "An Adaptive D-FACTS for Power Quality Enhancement in an Isolated Microgrid," in IEEE Access, vol. 8, pp. 57923-57942, 2020, doi: 10.1109/ACCESS.2020.2981444.
- Ahmed Hussain Elmetwaly, Abdelazeem Abdallah Abdelsalam, Azza Ahmed Eldessouky, Abdelhay Ahmed Sallam, Detection and Identification of PQ Disturbances Using S-Transform and Artificial Intelligent Technique, American Journal of Electrical Power and Energy Systems. Vol. 4, No. 1, 2015, pp. 1-9. doi: 10.11648/j.epes.20150401.11
- A.H. Elmetwaly, A. A. Eldesouky and A. A. Sallam, "Energy Management Based on Hierarchical Structure of an Isolated Microgrid Using Grasshoppers Optimization Algorithm" International Journal of Engineering and Information Systems (IJEAIS). Vol. 3 Issue 10, October 2019, Pages: 27-39
- Al-Gabalawy, M., Elmetwaly, A. H., Younis, R. A., & Omar, A. I. (2022). Temperature prediction for electric vehicles of permanent magnet synchronous motor using robust machine learning tools. Journal of Ambient Intelligence and Humanized Computing, 1-18.
- Elmetwaly, A. H., ElDesouky, A. A., Omar, A. I., & Saad, M. A. (2022). Operation control, energy management, and power quality enhancement for a cluster of isolated microgrids. Ain Shams Engineering Journal, 13(5), 101737.
- Sindi, Hatem F., Sultan Alghamdi, Muhyaddin Rawa, Ahmed I. Omar, and Ahmed Hussain Elmetwaly. "Robust control of adaptive power quality compensator in Multi-Microgrids for power quality enhancement using puzzle optimization algorithm." Ain Shams Engineering Journal (2022): 102047.

• Elmetwaly, A.H., Younis, R.A., Abdelsalam, A.A., Omar, A.I., Mahmoud, M.M., Alsaif, F., El-Shahat, A. and Saad, M.A., 2023. Modeling, Simulation, and Experimental Validation of a Novel MPPT for Hybrid Renewable Sources Integrated with UPQC: An Application of Jellyfish Search Optimizer. Sustainability, 15(6), p.5209.

## 8. Scientific and professional societies of which a member

• Egyptian Engineers Syndicate, and Egyptian Society of Engineers.

#### 9. Honors and awards:

## 10. Institutional & professional service in last 5 years:

• Quality Coordinator of the Department of Electrical power and machines Engineering, Higher Institute of Engineering, Elshorouk Academy (2020 - present).

## 11. Professional Development Activities in the last 5 years:

- Attending many meetings, events, and conferences related to the field of Electrical power and machines at the MEPCON (2020 present).
- Attending many trainings in the field of education quality (Specification of programs and courses and evaluation of learning outcomes for colleges and institutes of higher education Self-evaluation of colleges and institutes of higher education Preparing Course Specifications) at the National Authority for Quality Assurance and Accreditation of Education (NAQAA), Cairo, Egypt (2022 2023) and the administrative field (Leadership skills, and Credit Hours System) at Developing the Capabilities of Faculty Members and Leaders Center, Cairo University, Giza, Egypt (2021 2022).