Curriculum Vitae

1. PERSONAL DATA

Name	**Mahmoud Hamouda Mahmoud Abdelaziz**
Job	Postdoc fellow, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia. Assistant Professor – Electrical Engineering Department – Faculty of Engineering – Mansoura University.
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Academic and Professional Identifiers:

https://www.scopus.com/authid/detail.uri?authorId=14833728400	**H-index (11)**
https://www.webofscience.com/wos/author/record/Q-4502-2018	**H-index (10)**
https://www.researchgate.net/profile/Mahmoud-Hamouda-6	**H-index (12)**
https://scholar.google.com/citations?user=5FXNFcQAAAAJ&hl=en	**H-index (12)**
https://orcid.org/0000-0003-0507-0975	
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2. DEGRESS

Ph.D. 2020	School of Electrical Engineering, Budapest University of Technology and Economics, Hungary, December 2020, "*Advanced Control of Switched Reluctance Motor Drives for Electric Vehicles*".
M.S. 2015	Electrical Engineering department, Mansoura university, Egypt, November 2015, "*Performance Analysis of Switched Reluctance Machine*".
B.S.E.E 2010	Electrical Engineering department, Mansoura university, Egypt, June 2010, Excellent Degree (The First).

3. ACADEMIC POSITIONS

Postdoc Fellow 16 March 2025 – Now	King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia
Assistant Professor 27 Jan 2021 – 15 March 2025	Electrical Engineering department, Mansoura university, Egypt.
PhD fellow and Teaching Assistant 17 Sep 2016 – 11 Dec 2020	Department of Electric Power Engineering, Faculty of Engineering and Informatics, Budapest University of Technology and Economics, Budapest, Hungary.
Assistant Lecturer 17 Jan 2016 – 16 Sept 2016	Electrical Engineering department, Mansoura university, Egypt.
Demonstrator 08 Feb 2011 – 16 Jan 2016	Electrical Engineering department, Mansoura university, Egypt.

4. ACADEMIC EXPERIENCE

- A director of the *Maintenance and Technology Unit* at faculty of Engineering, Mansoura University.
- A supervisor of *Electric Machines Lab* in Faculty of Engineering, Mansoura University, Egypt.
- A supervisor of *Power Electronics Lab* in Faculty of Engineering, Damietta University, Egypt.
- A supervisor of *Electric Machines Control Lab* in Faculty of Engineering, Damietta University, Egypt.
- A Member of the *Quality Assurance Unit* at faculty of Engineering, Mansoura University.
- A Coordinator for the Quality Assurance for electrical engineering department at faculty of Engineering, Mansoura University.
- A Member of the Quality Assurance Team of biomedical engineering program (BME).
- *Academic Adviser* at the electrical engineering program (ELE) and biomedical engineering program (BME), faculty of Engineering, Mansoura University.
- A Member of the *Community Service and Environmental Development Committee* at faculty of Engineering, Mansoura University.
- A Member of the *Crisis, disaster, and risk reduction team* at faculty of Engineering, Mansoura University.
- A Member of the *Cultural Relations Committee* at faculty of Engineering, Mansoura University.
- A Member of the International Technical Committee for the 17th International Middle East Power Systems Conference (MEPCON), Mansoura, Egypt, December 2015.
- A member of the International Technical Committee for the 24th International Middle East Power Systems Conference (MEPCON), Mansoura, Egypt, December 2023.
- Reviewing several academic papers at many international journals of electrical engineering including IEEE Journal of Emerging and Selected Topics in Industrial Electronics, IEEE Transactions on industry applications, IEEE Transactions on Magnetics, IET Renewable Power Generation, IEEE Access, Energy Reports, China Electrotechnical Society Transactions on Electrical Machines and Systems, Energies, International Transactions on Electrical Energy Systems, and …etc.

▪ Teaching The Following Courses as An Assistant Professor:

- Power Electronics
- Electric Vehicles
- Electric Drives
- Advanced Control of Electric Machines
- Electromagnetic Field Theory
- DC machines and Transformers
- AC machines (induction and synchronous)
- Special Electric Machines
- Electrical Measurements
- Programming 1 (C++)
- Programming 2 (MATLAB for engineering)
- Numerical Analysis and Programing
- Electric Circuits
- Magnetic Circuits
- Energy Conversion and Power Systems
- Electrical Energy Systems
- Statistics Applications in Electrical Engineering

5. CURRENT RESEARCH ACTIVITIES

- Electric Drives and Motor Control
- Electric Vehicles
- Power Electronics
- Transportation Electrification
- Grid Connected Converters
- Renewable Energy Applications
- Solar Water Pumping Systems
- Optimization
- Energy Efficiency
- Multi-level Inverters
- Electrical Measurements

6. RESEARCH PROJECTS (Funded Projects)

#	Project name	Starting Year	Funding Authority
1	Design and Implementation of a Complete Drive System for Switched Reluctance Motor Drives Based Electric Vehicles.	2017	BME
2	Multi-Objective Optimization Control of Hybrid Microgrid Driven by Magnetic Network-Based Energy Router.	2022	STDF
3	A New Photovoltaic Water Pumping System Based on Switched Reluctance Motors with Supercapacitors	2023	USAID
4	Efficiency Optimization of Industrial Motor Driven Systems based on Modern Power Electronics Technology	2024	USAID
5	Optimal Design and Control of a Sustainable Energy Hub for Powering Children Hospitals	2024	USAID

7. LANGUAGES

- Arabic (Native)
- English (Fluent)
- French (Basics)
- Hungarian (Basics)

10. PUBLICATIONS

#	Papers in International Journals
1	M. I. Elkasas, A. L. Saleh, A. Ghanem, M. F. Kotb, and M. Hamouda, "Magnetic Characterization-Based Modeling of Switched Reluctance Motors Considering Interturn Short Circuit Faults," IEEE Access, pp. 1–1, 2025, doi: 10.1109/ACCESS.2025.3624075.
2	Hamouda, M., Elsherbiny, H., Zaky, A.A., ... Bureš, V., Abdel Menaem, A. "Improved Efficiency and Reliability of a Single-Stage Solar Water Pumping System "IEEE Access , 2025, 13, pp. 26991–27006
3	Abdel Menaem, A., Oboskalov, V., Hamouda, M., Elgamal, M." Reliability assessment of generation capacity in modern power systems via analytical methodologies". Sustainable Energy Grids and Networks , 2024, 40, 101509
4	Hamouda, M., Al-Amyal, F., Elsherbiny, H., ... Alluhaybi, K., Zaky, A.A.", A Novel Interturn Fault Tolerant-Based Average Torque Control of Switched Reluctance Motors for Electric Vehicles", IEEE Access , 2024, 12, pp. 111769–111781
5	F. Al-Amyal, L. Számel, M. Hamouda, "An enhanced direct instantaneous torque control of switched reluctance motor drives using ant colony optimization", Ain Shams Engineering Journal, 2023, 14(5).
6	F. Al-Amyal, M. Hamouda, L. Számel, "Performance improvement based on adaptive commutation strategy for switched reluctance motors using direct torque control", Alexandria Engineering Journal, 2022, 61(11), pp. 9219–9233
7	M. Hamouda, F. Al-Amyal, I. Odinaev, M.N. Ibrahim, and L. Számel, "A Novel Universal Torque Control of Switched Reluctance Motors for Electric Vehicles", Mathematics, 2022, 10(20).
8	M. Hamouda, A.A. Menaem, H. Rezk, M.N. Ibrahim, L. Számel, "Comparative evaluation for an improved direct instantaneous torque control strategy of switched reluctance motor drives for electric vehicles", Mathematics, 2021, 9(4), pp. 1–17.
9	F. Al-Amyal, M. Hamouda, L. Számel, "Torque quality improvement of switched reluctance motor using ant colony algorithm", Acta Polytechnica Hungarica, 2021, 18(7), pp. 129–150.
10	Al Quraan, L., Szamel, L., Hamouda, M., "Optimum switching angles control of SRM for electric vehicle applications", Periodica polytechnica Electrical engineering and computer science, 2021, 65(4), pp. 394–403
11	M. Hamouda, A.A. Menaem, H. Rezk, M.N. Ibrahim, L. Számel, "An improved indirect instantaneous torque control strategy of switched reluctance motor drives for light electric vehicles", Energy Reports, 2020, 6, pp. 709–715.
12	M. Hamouda, A.A. Menaem, H. Rezk, M.N. Ibrahim, L. Számel, "Numerical estimation of switched reluctance motor excitation parameters based on a simplified structure average torque control strategy for electric vehicles", Mathematics, 2020, 8(8).
13	M. Hamouda, L. Számel, "Optimum control parameters of switched reluctance motor for torque production improvement over the entire speed range", Acta Polytechnica Hungarica, 2019, 16 (3), 79-99
14	M. Hamouda, L. Számel, "Accurate magnetic characterization based model development for switched reluctance machine", Periodica polytechnica Electrical engineering and computer science, 2019, 63 (3).
15	M. Hamouda, E. Gouda, A.R.A. Amin, "A New Constructed Geometry of a Switched Reluctance Motor for Reduced Torque Ripple", MEJ. Mansoura Engineering Journal, 2015, 40 (2), 22-35