PERSONAL INFORMATION

MOHAMMED GMAL OSMAN ABDELFADEEL

Bucharest (Romania)
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Sex Male | Date of birth 06/06/1992 | Nationality Sudanese

ELECTRICAL ENGINEER

ABOUT ME

Mohammed Gmal Osman, a prolific researcher, has significantly contributed to the field of renewable energy. His work encompasses diverse areas, from analyzing solar radiation and optimizing the location of photovoltaic panels to exploring efficient charging strategies for off-grid solar systems. Osman's research delves into the performance evaluation of renewable energy systems, emphasizing photovoltaic and wind technologies. His comprehensive overview of photovoltaic efficiency and climate neutrality showcases his commitment to sustainability. Moreover, Osman has modelled automatic generation control and voltage regulation in interconnected thermal power systems. His work reflects a profound understanding of energy dynamics and a dedication to advancing environmentally conscious solutions.

EDUCATION

27/10/2021–Present	Studying Ph.D. in Power Engineering	
	National University of Science and Technology POLITEHNICA Bucharest (faculty of power Engineering), Bucharest (Romania) http://doctorat.energetica.upb.ro/index.html	
27/10/2020–30/07/2021	Romanian Language Diploma	
	National University of Science and Technology POLITEHNICA Bucharest (Faculty of Engineering in Foreign Languages), Bucharest (Romania) https://upb.ro/en/faculties/the-faculty-of-engineering-in-foreign-languages/	
21/08/2015–05/10/2017	Master's in electrical engineering (Power)	
	Sudan University of Science & Technology (College of Engineering), Khartoum (Sudan) https://www.sustech.edu/	

09/10/2009–27/11/2014	**Bachelor of Engineering (Honours) in Electrical Engineering (Power & Machine)**
	Sudan University of Science & Technology (College of Engineering), Khartoum (Sudan) https://www.sustech.edu/

https://scholar.google.com/citations?user=CIrUPNMAAAAJ&hl=en
https://orcid.org/0009-0003-6315-0380

Publications

1 Osman MG, Ciupageanu D, Stan A. Analysis of Solar Radiation in Sudan, and Optimal Location of Photovoltaic Panels. UPB Sci. Bull., Series C. 2022;84(4).

2 Strejoiu CV, Osman MG, Lazaroiu G 'Towards Sustainable Transportation: Modeling and Simulation of PV Panel Implementation on National Highways for Charging Electric Vehicles Which leads to Mitigate Carbon Emission' UPB Sci. Bull., Series C. 2023;85(4).

3 Dorel S, Gmal Osman M, Strejoiu CV, Lazaroiu G. Exploring Optimal Charging Strategies for Off-Grid Solar Photovoltaic Systems: A Comparative Study on Battery Storage Techniques. Batteries. 2023 Sep 18;9(9):470. Q2

4 Lazaroiu G, Gmal Osman M, Strejoiu CV. Performance Evaluation of Renewable Energy Systems: Photovoltaic, Wind Turbine, Battery Bank, and Hydrogen Storage. Batteries. 2023 Sep 18;9(9):468. Q2

5 Lazaroiu AC, Gmal Osman M, Strejoiu CV, Lazaroiu G. A Comprehensive Overview of Photovoltaic Technologies and Their Efficiency for Climate Neutrality. Sustainability. 2023 Nov 24;15(23):16297. Q2

6 Osman, M.G., Ciupagenau, D.A., Lazaroiu, G. and Pisa, I., 2022, September. Increasing Renewable Energy Participation in Sudan. In 2022 11th International Conference on Renewable Energy Research and Application (ICRERA) (pp. 169-173). IEEE.

7 Strejoiu CV, Osman MG, Lazaroiu G. Analyzing Energy Consumption and Hot Water Usage in the Titan Neighborhood of Bucharest: Implications for Smart City Development. In2023 IEEE International Smart Cities Conference (ISC2) 2023 Sep 24 (pp. 1-6). IEEE.

8 Gmal Osman M., Strejoiu CV., Panait C., Lazaroiu G., Lazaroiu AC. Renewable energy integration, climate analysis, and efficiency optimization for greener transportation – a case study in Dobrogea. International Multidisciplinary Scientific GeoConference-SGEM; 2023; (pp. 675-687), DOI: 10.5593/sgem2023V/6.2/s27.83

9 Osman MG., Strejoiu CV., Panait C., Lazaroiu G., Lazaroiu AC. Optimal Power System Design for Off-Grid Residences in Dobrogea, Romania: Integrating Renewable Energy and Generator Technology. 2024 IEEE ATOMS Conference. Accepted.

10 Strejoiu CV., Osman MG., Panait C., Lazaroiu G., Dorel S. ' Optimizing Solar Photovoltaic Systems: A Geometric Approach to Enhance Energy Production and Economic Viability' 2024 IEEE ATOMS Conference. Accepted.

11 Osman MG., Strejoiu CV., Panait C., Lazaroiu G., Lazaroiu AC ' Microgrid Model for Evaluating the Operational Dynamics of Solar-Powered Hydrogen Production'. IEEE, EE& AE 2024. Accepted.

12 Strejoiu CV., Osman MG., Panait C., Lazaroiu G., Dorel S. 'Efficiency evaluation and performance analysis of a photovoltaic park connected to a 20 kV distribution network in Galati County, Romania' IEEE, EE& AE 2024. Accepted.

13 Osman MG, EZ Abdalla, Modeling of Automatic Generation Control and Automatic Voltage Regulator Under Generation Rate Constraint UNIVERSITY of KHARTOUM ENGINEERING JOURNAL (UofKEJ) 6 (2), 43-51

WORK EXPERIENCE

I am a qualified Electrical Engineer with over 9 years of experience in electrical engineering design, installation, pre-commissioning, testing, and commissioning, start-up, operation, and maintenance. I possess a strong skill set in designing efficient electrical systems, selecting suitable equipment, and ensuring compliance with industry standards. I excel in supervising installation processes and conducting meticulous testing and troubleshooting. My expertise extends to optimizing system performance for maximum efficiency. I am proactive in performing regular maintenance activities, conducting inspections, promptly resolving issues, and implementing preventive measures. Currently, I leverage my experience and dedication to successfully implement and maintain smooth operation of electrical systems.

Am reviewer at Bulletin of Electrical Engineering and Informatics (BEEI). BEEI, ISSN: 2089-3191, e-ISSN: 2302-9285 is the official publication of the Institute of Advanced Engineering and Science (IAES). a SCOPUS indexed Journal.

06/10/2023 – Present
Maritime University of Constanta
Researcher, https://cmu-edu.eu/en/

15/03/2022 – Present
T&D PROELECTRIC
Bd Basarabia, Nr. 256, Sector 3, Bucuresti (Incinta Faur)

04/11/2020 – 14/03/2022
S_IND PROCESS CONTROL SRL
https://www.s-ind.eu/
Electrical designing engineer
Design electrical drawing by using EPLAN and Auto CAD

22/03/2020 20/10/2020	**Sudanese Electricity Transmission Company (SETCO) Khartoum (Sudan)** National Load Dispatch Centre http://www.setco-sd.com
01/07/2016– 21/03/2020	**Electrical Maintenance Engineer** Sudanese Thermal Power Generating Co.Ltd, Khartoum (Sudan) Khartoum North Power Station (KNPS)
13/05/2015– 30/06/2016	**Teacher Assistant** University of Karary, Omdurman (Sudan) http://info@karary.edu.sd/
17/12/2014– 17/12/2015	**Electrical Maintenance Engineer** Sudanese Electricity Transmission Co.Ltd, Khartoum (Sudan)

TRAINING

10/12/2017– 14/12/2017	**Generator & Transformer Protection** Training & integrated Development canter (Um Haraz), Khartoum (Sudan)
25/12/2016– 29/12/2016	**Kilowatt Cost of Power Plant** Training Canter and Integrated development (Um Haraz), Khartoum (Sudan), Khartoum (Sudan)
4/11/2018– 8/08/2018	**Load Study** Training & integrated Development canter (Um Haraz), Khartoum (Sudan)
11/11/2018– 15/11/2018	**Thermal Camera** Training & integrated Development canter (Um Haraz), Khartoum (Sudan)

PERSONAL SKILLS

Mother tongue(s)	Arabic				
Foreign language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Romanian	C2	C2	C1	C2	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Mohammed Gmal Osman Abdelfadeel Signature