

Detailed CV

Date Prepared: November, 2024

Name: Esraa Mohamed Abd Elsadek

Office Address: Mechanical Engineering Department, College of Engineering& Technology, Arab Academy for Science, Technology, and Maritime Transport, South valley campus, 81528 Aswan, Egypt.

Home Address: Alexandria, Egypt **Cell Phone& WhatsApp:** (+2)1210085004

Work E-Mail: esraa_sadek@egypt.aast.edu , engesraa560@gmail.com

Work FAX: (+2097) 2332842 **Place/date of Birth:** Alexandria – Egypt, 12 August. 1992

Academic Positions

December, 2024	Assistant professor “lecturer” at Mechanical Engineering Department (Mechatronics major) , College of Engineering& Technology, Arab Academy for Science, Technology, and Maritime Transport, South valley campus.	AASTMT, Aswan, Egypt.
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Education

Sep 2020- Sep 2024	PhD	Department of Electrical Engineering , Faculty of Engineering, (Supervisor Prof. Ayman Samy).	Alexandria university, Alex, Egypt.
December 2014- Feburery 2020	M.Sc	Electrical Engineering department , Faculty of Engineering (Supervisor Prof. Hamdy Ashour).	Alexandria university, Alex, Egypt.
Sep 2009-July 2014	B.Sc	Mechatronics Engineering , Alexandria Higher Institute of Engineering and Technology. (Excellent with GPA (3.67/4).	AIET, Alex, Egypt.

Faculty Academic Appointments & Achievements

November 2024	Assistant professor (lecturer)	Mechanical Engineering Department	AASTMT Aswan, Egypt
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2022	Member	Quality assurance unit (ISO, ABET)	Collage of Engineering and Technology, AASTMT, Aswan, Egypt.
March 2022	Member	Workshop in the department.	Collage of Engineering and Technology, AASTMT, Aswan, Egypt
2016 - 2021	Assistant lecturer	Maritime and Technology Department	AASTMT, Alexandria, Egypt
2016-2020	Assistant lecturer	Mechanical Engineering Department	AASTMT, Alexandria, Egypt
2014-2015	Demonstrator	Department of Physics, Chemistry and Basic Science	Alexandria University, Alex, Egypt
2014-2020	Demonstrator and Research Assistant	Mechatronics Engineering Department	Alexandria Higher Institute of Engineering and Technology (AIET)

Honors and Prizes & awards and scholarships

2022	Certificate of Appreciation for the best teaching assistant for this year.	AASTMT Aswan, Egypt.
2021	Certificate of Merit for Outstanding Student. Award from Egyptian Engineers Syndicate for M.Sc.	Egyptian Engineers Syndicate, Egypt.
2019	Excellent Scientific Research for year 2019.	AIET, Egypt.

Report of Funded Projects

2022	"Innovative Photovoltaics Envelopes for adaptive energy and comfort management of Harsh Climate Areas in Upper Egypt toward nearly zero energy buildings" (fund amount: 500K EGP).	AASTMT Collaborative Research Project (CRP), Egypt.	In progress
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Certifications and training national and international

2022	Training on: -	AASTMT, Egypt.
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National Accreditation and Quality Assurance Authority
(NAQAA)

2022	Educational preparation course for graduate Teaching assistants and lecture	AASTMT, Egypt.
2022	International publication	AASTMT, Egypt.
2021	Required standards to obtain ABET accreditation	AASTMT, Egypt.
2018	Training on: - ISO 9001:2015	AIET, Egypt.
2014	Academic Basic electronics	JELECOM-EGEYPT
2013	Perform periodical maintenance of car and discover their faults and how to fix them.	Egyptian International Training & Agencies Co “EIT” KIA MOTORS Company
2013	Microcontroller that designs of electronics circuit of different object of control, Basic Electronics	JELECOM-EGEYPT
2012	PIC & AVR Microcontroller Advanced Course (level-1), C, C++.	JELECOM-EGEYPT
2012	I took training of DCS and PLC devices, and understood the idea of working of sensors and the control room and how they are managing the processes. Chemical Safety, TEES Hazardous Waste Disposal, and TEES Shop & Tool Safety Course.	West Delta Company for Electricity
2011	Trained on work site and examined the technical problems and how to maintenance it..	Alexandria Petroleum Company.

Society and membership

- Member of the Syndicate of Egyptian Engineers.
- Resala" Charity organization
Volunteer in Resala organization from 2009.
- "MRESAL El-Khair" Charity organization Leader

One of the biggest groups in the AIET that help the poor people and encourage the students for Voluntary work.

Computer Skills & Educational Teaching Training

- ICDL
- Microsoft Office and Computer Maintenance
- Solid works (CAD software)
- Origin pro-8.5.
- EndNote X7.
- MATLAB® SIMULINK- M-file
- AutoCAD.
- PLC programming using ladder language.
- Design and making of Printed Circuit Boards “PCB”
- Python / C/C++
- Artificial Intelligent (AI) / Deep learning / Neural Network

Report of Local Teaching and Training

Postgraduate (Master course) 2024	• Simulation and Modeling of Mechanical Systems	Arab Academy for Science, Technology & Maritime Transport, 2 hrs. / week Semester 15 weeks.
Undergraduate Mechanical Engineering Department 2024	• Engineering Drawing & Projection. drawing with Autocade (first year all engineering departments) • Sustainable Development • Mechatronics	Role: Assistant professor & lecture Arab Academy for Science, Technology & Maritime Transport, 2 hrs. / week Semester 15 weeks. Role: Assistant professor & lecture
Student in Basic Science Department (2014-2015)	• Physics (laboratory)	Faculty of Engineering, Alexandria University 4 hrs. / week Semester 15 weeks. Role: Demonstrator
Undergraduate Student in Basic Science Department 2014-2021	• Engineering drawing: (tutorial + laboratory on AUTOCAD®) • Mechanics: (tutorial + laboratory)	Alexandria Higher Institute of Engineering and Technology (AIET), 3 hrs. / week per course Semester 15 weeks. Role: Assistant lecture

Undergraduate
Student in Mechatronics
Engineering Department
2014-2021

- Robotics: (laboratory)
- Energy Resources: (tutorial + laboratory)
- Transformers and Machines: (tutorial + laboratory)
- Energy Conversion I: (tutorial + laboratory)
- Electric Circuits (DC fundamentals): (laboratory)
- Electric Circuits (AC fundamentals): (laboratory)
- PLC: (laboratory)
- Numerical analysis: (tutorial)
- Digital electronics: (tutorial + laboratory)
- Logic electronics: (laboratory)
- Basic measurement: (laboratory)

Alexandria Higher Institute of
Engineering and Technology (AIET),
3 hrs. / week per course
Semester 15 weeks.
Role: Assistant lecture

Society Service and activity & consultant

2022	Perpetration Mechatronics laboratory funded from AASTMT.	Collage of engineering & Technology & Arab Academy for Science, Technology & Maritime Transport, Aswan, Egypt.
2009	Volunteer in Resala organization	"Resala" Charity organization Alexandria, Egypt
2010-2014	"MRESAL El-Khair" Charity organization Leader	AIET, Alexandria.
2019	International Conference on Innovative Trends in Computer Engineering (ITCE'2019)	Aswan, Egypt.

Peer Reviewed Publications in print

1. Esraa M. Abd Elsadek, Hamdy Ashour, Ragy Ali Refaat, and Mohamed Mostafa. "Efficiency Improvement and Saving Energy within Electro-Pneumatic System Using VFD," *International Conference on Innovative Trends in Computer Engineering (ITCE'2019)*, Aswan, Egypt, 2019.
2. Esraa M. Abd Elsadek, Hamdy Ashour, Ragy Ali Refaat, and Mohamed Mostafa. "An Approach of Load Management and Cost Saving for Industrial Production Line Using Particle Swarm Optimization" *MANSOURA ENGINEERING JOURNAL, (MEJ)*, VOL. 45, ISSUE 4, DECEMBER 2020
3. E. M. Abd Elsadek, H. Kotb, A. S. Abdel-Khalik, Y. Aboelmagd, and A. Abdelbaky Elbatran, "Experimental and Techno-Economic Analysis of Solar PV System for Sustainable Building and Greenhouse Gas Emission Mitigation in Harsh Climate: A Case Study of Aswan Educational Building," *Sustainability*, vol. 16, no. 13, p. 5315, 2024.
4. E. M. Abd Elsadek, H. Kotb, A. S. Abdel-Khalik, and A. Abdelbaky Elbatran, "Harvesting Tomorrow: A Comprehensive Review of Photovoltaic Systems for Sustainable Energy Solutions and Climate Resilience", Under review

Thesis

1. **Esraa Sadek**, "Tracking Control of Solar System Towards Improving Energy Management", Ph.D. Thesis, **Alexandria university**, Egypt, 2024.
2. **Esraa Sadek**, "Load Management Optimization and Cost Saving for Industrial Production Lines Using Particle Swarm Algorithm "M.Sc. **Alexandria university**, Egypt, 2021.

Referees

1. **Prof. Mohamed Fahmy Shehadeh**, Professor and ex-dean of Collage of engineering & technology South valley campus, Arab Academy for Science and Technology. Director Arab Academy for Science and Technology Port Said Branche, Port Said, Egypt. ezzfahmy@yahoo.com , ezzfahmy@aast.edu
2. **Prof. Aly Hassan Elbatran**, Professor, Head of Mechanical Engineering Department, College of Engineering& Technology, Arab Academy for Science, Technology, and Maritime Transport, South valley campus. Phone +2 010 625 783 95 - Email: aly_marine@hotmail.com
3. **Prof. Ayman Samy Abdel-Khalik**, Professor of Electric Machines and Drives, Electrical Engineering department, Faculty of Engineering, Alexandria university. Editor of Alexandria Engineering Journal. Phone +2 01156719900 - Email: ayman.abdel-khalik@alexu.edu.eg
4. **Assoc. Professor Mohamed Taha Abdo**, Associate. Professor, Head of Mechanical Engineering Department, College of Engineering& Technology, Arab Academy for Science, Technology, and Maritime Transport, South valley campus. Phone +2 01148581181 - Email: Mohamed_taha@egypt.aast.edu
5. **Associ Professor. Hamouda M. Mousa**, Associate professor, Dean of Faculty of Technological Industry and Energy, Thebes Technological University, Luxor, Egypt. (Collaboration) Email: hmousa@eng.svu.edu.eg