Yasmine Khattab

Lecturer

PERSONAL DETAILS

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EXPERIENCE

Lecturer
AASTMT, College of Engineering, Mechanical Engineering Department
Alexandria, Egypt
2021- present

- Delivered lectures and led discussion sessions for 9 to 12 sections weekly.
- Provided academic support and mentoring to undergraduate students in courses such as Robotics Applications, Mechatronics, Electromechanical Systems, Automation of Mechanical Systems, and more.
- Assisted in curriculum development for robotics and mechatronics-related courses.
- Participated in accreditation committees (ISO, NAQAA) and graduation project assessments.
- Engaged in student advisory, schedule planning, and academic report preparation.

Reviewer
2023- present

- Reviewed articles submitted for Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, Sage Journals

Graduate Teaching Assistant
AASTMT, College of Engineering, Mechanical Engineering Department
Alexandria, Egypt

2019 – 2021

- Conducted tutorial sessions and graded assignments in various engineering subjects.
- Provided mentoring and guidance to students in robotics, control systems, and automation.

EDUCATION

Doctor of Philosophy – Mechanical Engineering (Remote, Part-time)
Institute of Medical Device Technology, University of Stuttgart, Germany
October 2023 – Present

- Research Topic: Reaction-Free Robot with Haptic Communication for Capsule Endoscopic Examination
- Developing a human-in-the-loop control system integrating haptic communication with SCARA robot and an active joystick

Master of Science
Arab Academy for Science, Technology and Maritime Transport (AASTMT), Egypt
2019 - 2022

- GPA: 3.88/4.0
- Thesis: Trajectory Control of a Laparoscopic 3-PUU Parallel Manipulator Based on Neural Networks in Simscape Simulink.
- Specialized in robotics, automation, control theory, and artificial neural networks.

Bachelor of Science
Arab Academy for Science, Technology and Maritime Transport (AASTMT), Egypt
2015 - 2019

- GPA: 4.0/4.0 (Graduated with Honors)
- Graduation Project: Design and Control of a Prosthetic Hand

PUBLICATIONS

1. Khattab, Y., Zidane, I. F., El-Habrouk, M., & Rezeka, S. (2021). Solving Kinematics of a Parallel Manipulator Using Artificial Neural Networks. In 2021

31st International Conference on Computer Theory and Applications (ICCTA) (pp. 84-89). IEEE.
2. Zidane, I. F., Khattab, Y., El-Habrouk, M., & Rezeka, S. (2022). Trajectory control of a laparoscopic 3-PUU parallel manipulator based on neural network in SIMSCAPE SIMULINK environment. Alexandria Engineering Journal, 61(12), 9335-9363.
3. Zidane, I. F., Khattab, Y., Rezeka, S., & El-Habrouk, M. (2023). Robotics in laparoscopic surgery-A review. Robotica, *41*(1), 126-173.

CERTIFICATIONS AND PROFESSIONAL DEVELOPMENT

- **GRE:** Quantitative: 152, Verbal: 147 (*August 2024*)
- **IELTS:** Overall Band Score: 7.5 (*August 2024*)
- **International Computer Driving License (ICDL)** (*December 2021*)
- **IEEE Female Researcher Award** (*31st ICCTA, December 2021*)
- **Graduate Teaching Assistant & Lecturer Training Program** (*August 2019*)

Internships

- **Mechanical Engineer Summer Trainee** – GASCO, Egypt (*Aug-Sep 2018*)
- **Mechanical Engineer Summer Trainee** – Prometeon Tyre Group, Egypt (*Aug-Sep 2017*)

TECHNICAL SKILLS

- **Software & Simulation:** MATLAB, Simulink, Simscape Multibody, LabVIEW, Adams, Proteus, Eagle
- **CAD & Design:** SolidWorks, Solid Edge
- **Programming:** C, C++, Python, Robot Operating System (ROS)
- **Embedded Systems & Microcontrollers:** Arduino, ATmega, STM, Raspberry Pi, PLC
- **Robotics & Control:** Kinematic analysis of serial & parallel manipulators, modeling & simulation of electromechanical systems, control system prototyping
- **Sensors & Electronics:** Infrared, ultrasonic, rotary position & speed sensors, EMG, piezoelectric, temperature sensors
- **Machine Learning:** Supervised training of Artificial Neural Networks
- **Microsoft Office:** Proficiency in Excel, Word, PowerPoint, Access.

REFERENCES

Prof. Dr. Sohair Fathy Rezeka
Professor of Mechanical Engineering
Faculty of Engineering, Alexandria University.
Email: srezeka@alexu.edu.eg | srezeka@yahoo.com
Phone: +201023083133

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Course Coordinator of Mechatronics program in the Mechanical Engineering Department, AASTMT.
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