# Abdelmaged Elsayed Abdelmaged

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## **Professional Summary**

Teaching Assistant at Benha Faculty of Engineering with hands-on experience in **artificial intelligence**, **robotics**, **and control systems**. Passionate about research and development of intelligent robotic systems, combining analytical modeling with practical implementation. Skilled in mechanical design, MATLAB simulation, and integration of AI techniques for automation and smart control applications.

#### Education

#### B.Sc. in Mechanical Engineering (Mechatronics)

2017 - 2022

Benha Faculty of Engineering, Egypt

Ranked first in the Mechanics Department. Graduation project: "Skyscraper window cleaning robot with vision system (Raspberry Pi)" — Grade: Excellent.

Overall Grade: Excellent.

## **Professional Experience**

**Teaching Assistant (TA)** — Benha Faculty of Engineering, Benha, Egypt — 2023 – Present

- Assist in delivering lectures and supervising laboratory sessions for Mechanical and Mechatronics Engineering courses.
- Guide students in design projects, CAD modeling, and programming applications.
- Support research activities and academic publications in the field of mechanical design and automation.

#### **Technical Skills**

**Software:** SolidWorks (Excellent), MATLAB (Excellent), Microsoft Office (Excellent), Auto-CAD (Good)

**Programming:** Python (Very Good), C++ (Very Good) **Simulation:** Abaqus (Finite Element Analysis) (Good)

#### Training & Courses

#### Holding Company for Water and Wastewater - Kaliobya Branch

Summer 2021

Practical training on water and wastewater treatment systems.

#### Military Production Factory - Banha

Summer 2021

Exposure to industrial manufacturing processes and quality control.

Courses: AutoCAD (2018), SolidWorks (2019), 3D Printing & Laser Cutting (2020)

# **Publications**

**Abdelmaged E. A. El-Sayed**, Ahmed A. El-Betar, and Mohamed E. M. Salem, "Manufacturing and modeling of helix-wrapped pneumatic artificial muscles," **Smart Materials and Structures**, IOP Publishing Ltd, Published 18 September 2025. DOI: 10.1088/1361-665X/ae05dc

## Languages

Arabic (Native), English (Proficient)

## **Research Interests**

Artificial Intelligence, Robotics, Continuum Robots, Control Systems, Smart Materials