# Sara Saad Mahmoud

## Personal Information

Name: Sara Saad Mahmoud

Nationality: Egyptian

Mobile: +20 101 606 9114 / +20 112 681 6137

Institutional E-mail: sara.a023@science.zu.edu.eg

Personal E-mail: sarasaadmath@gmail.com

Address: El Salam City, Cairo, Egypt

## Objective

To educate and inspire young minds by understanding their backgrounds, abilities, and aspirations in order to foster academic excellence and critical thinking.

## Education

**M.Sc. in Mathematics Department (2026)**

Zagazig University, Egypt

**B.Sc. in Science, Mathematics Department – 2019**

Ain Shams University, Cairo, Egypt

Grade: GPA 3.99 / 5.0 (81%)

## Research Interests

- Vibrations of dynamical systems modeled by ordinary differential equations
- Applied mathematics and perturbation methods
- Vibration control techniques
- Numerical analysis and stability theory

## Publication

Amer, Y. A., El-Sayed, M. A., Abd EL-Salam, M. N., & Mahmoud, S. S. (2024). IRC controller for suppressing the vibrations of cantilever beam excited by an external force. Bulletin of Faculty of Science, Zagazig University, 2024(3), 131–139.

EL-Sayed, A. T., Hussein, R. K., Amer, Y. A, Mahmoud, S. S. [4], Abu Alrub, S. and Bahnasy, T. A. (2025). Vibration Reduction and Stability Investigation of Van Der Pol –Mathieu–Duffing Oscillator via the Nonlinear Saturation Controller. Accepted in Actuators (ISSN 2076-0825).

## Language:

- Arabic: Native Language
- English: Very Good (written and spoken)
- Programming & Mathematical Software:

  Maple (Symbolic Computation, Calculus, Linear Algebra)

  Matlab (Symbolic Computation, Calculus, Linear Algebra)

## Skills

- Strong public relations and communication skills
- Teamwork and collaboration
- Commitment and strong work ethic

## Training Courses

- Mathematical and Statistical Applications in Planning and Development
- Mathematical and Statistical Applications in Meteorology