

Dr-Eng. Ghada Yehia Abozaid

(PhD in Computer Engineering)



PERSONAL INFORMATION:

- **Position** : **Assistant Professor** in Computer Engineering, Electrical Engineering Department, Faculty of Engineering, Aswan University
(www.aswu.edu.eg).
Co-founder and Team leader in **CAIR research lab**. Faculty of engineering, Aswan University.
- Former Position: **Deputy Governor of Aswan, Egypt** (Main tasks: Digital Transformation, Investments, Social responsibilities towards citizens, Health, Education)
- **Date of birth** : 3/10/1982
- **E-mail Address** : ghada.abozaid@aswu.edu.eg
- **Phone number** : Mob. +201115408181
- **Post Address** : Aswan Faculty of Engineering, Aswan University, Abo-Elreesh, Postal Code 81542, Aswan, Egypt

ACADEMIC WORK EXPERIENCE:

August, 2005 – May, 2010

Demonstrator, Electrical Engineering Department, Aswan Faculty of Engineering, South Valley University, Egypt.

June, 2010 – September, 2011

Lecturer Assistant, Electrical Engineering Department, Aswan Faculty of Engineering, South Valley University, Egypt.

- References available upon request -

September,2011 – August, 2015

PhD student in computer science and engineering department. Egypt-Japan University of Science and Technology.

Febraury,2014 – October, 2014

Visiting student in CAIRN research team, ENSSAT, Lannion, France.

October, 2015- Present

Assistant Professor in Computer Engineering, Electrical Engineering department, Computer and Systems Section.

October, 2015- 2020

Part-time Assistant Professor in Arab Academy for Science Technology & Maritime Transport (AASTMT) Aswan branch , Faculty of Computer Science.

EDUCATION:

May, 2004

Bachelor of Electrical Engineering, Computer & control Section, (Grade: very good with honor degree), Engineering Faculty, South Valley University, Aswan, Egypt.

June, 2010

Master Degree of Science with title of “ **FastCrypto: Parallel AES Pipelines Extension for General Purpose Processors**”, South Valley University, Aswan, Egypt.

September, 2015

Doctor of Philosophy in Computer Science and Engineering with title “**Software/Hardware Co-**

- References available upon request -

Designed Large Multiplier Supporting Fully Homomorphic Encryption", Egypt-Japan University of Science and Technology (E-JUST), Alexandria, Egypt.

TAUGHT COURSES:

Undergraduate:

- Design of Logic Circuits.
- Computer Programming Language
- Computer Architecture
- Lab Experiments for Different Levels
- Microprocessors
- Introduction to Information Systems
- Systems Programming
- Computer Interface Circuits
- Introduction to Software Engineering
- Introduction to Computing Algorithms
- Human computer interaction
- Introduction to Multimedia
- Computer Graphics
- Computer Organization

Post-Graduate:

- Parallel Computing

GRANTS:

- ITIDA graduation project award: "Servatic", (Machine learning, Natural Language processing, Software SDK), 2019.
- NTRA and ASRT graduation project award: "Smart Parking Space Management", (IoT, Machine learning, Image processing), 2018.

- References available upon request -

- Prof. El-Gohary's E-JUST conference travel grant. (2015)

SUPERVISION ACTIVITIES

Graduation projects

- “Servatic”, (Machine learning, Natural Language processing, Software SDK), 2019.
- “Smart Parking Space Management”, (IoT, Machine learning, Image processing), 2018.

Master Thesis

- Fatma Gamal, “ Hardware Support for Image Processing Algorithm” 2017- to 2020

TRAINING COURSES AND CERTIFICATIONS :

- Faculty member preparation(2008)
- Effective teaching skills (2008)
- Skills of scientific research(2009)
- Effective management of meetings(2009)
- Communication skills (2010)
- Scientific research & publication (2010)
- Career Ethical Values(2015)
- Time management (2015)
- University managements (2015)

RESEARCH AREAS :

- Computer architecture.
- Parallel processing.
- Computer security, cryptographic hardware support.

- References available upon request -

- High performance computing.
- Performance mathematical modelling.

SKILLS HIGHLIGHTS:

- ❖ VHDL programming Language (Xilinx ISE, Vivado)
- ❖ FPGA implementation (Zynq board)

SPOKEN LANGUAGES:

- Arabic (native) - English (very good)

AWARDS:

- YRC'2019 Honorary shield (April, 2019)
- ITCE'2019 Honorary shield (February, 2019)
- ITCE'2018 Honorary shield (February, 2018)
- Full PhD scholarship from the Egyptian ministry of Higher Education. (September, 2011)

MEMBERSHIPS :

- IEEE student member from 2012 to 2015.
- ACM special interest group on computer architecture (SIGARCH) member from 2011 to present.
- IEEE member from 2015 to present.
- ACM professional member, 2019 to present.

VOLUNTEERING ACTIVITIES:

- E-JUST Graduate Student Association (GSA) president(2013).
- Supervisor of students family named “Science Club family” in faculty of engineering, Aswan University. <https://www.facebook.com/ScienceClubAswanUniversity/#> (2016/2017,2019/2020)

- References available upon request -

- Invited judge in upper Egypt in Action Event organized by IEEE Aswan student branch (2017).
- Publication Co-Chair in International Conference on Innovative Trends in Computer Engineering 2018 (ITCE'2018) (2017-2018)
- Technical Program committee member in the 47th International Conference on Parallel Processing (ICPP) (2018).
- Invited judge in upper Egypt in Action Event organized by IEEE Aswan student branch (2018).
- Publication Co-Chair in the International Conference on Innovative Trends in Computer Engineering 2019 (ITCE'2019) (2018-2019).
- Technical Program committee member in the 48th International Conference on Parallel Processing (ICPP) (2019).
- Invited judge in upper Egypt in Action Event organized by IEEE Aswan student branch (2019).
- Publication Chair in the 2019 Young Researchers' Conference (YRC'2019).
- Publication Co-Chair in the International Conference on Innovative Trends in Communication and Computer Engineering 2020 (ITCE'2020) (2019-to present).
- Leader of **“Together Against COVID-19”** campaign in Aswan during the first wave of the virus.2020

ADMINISTRATIVE POSITIONS:

- **Manager of Information Technology Services** Unit in Aswan Engineering Faculty from August, 2016 to July, 2017.
- Program coordinator in quality assurance unit in Faculty of Engineering, 2016.
- **Chief Information Officer** in Aswan University (CIO) July, 2017 to 2019.
- **Deputy Director of EELU-** Aswan University branch, August 2019- to 2020.
- **Deputy Governor of Aswan, Egypt**(Main tasks: Digital Transformation, Investments, Social responsibilities towards citizens, Health, Education) 2019-2024.

- References available upon request -

REVIEWER AT SCIENTIFIC JOURNALS:

- IEEE Embedded Systems Letters (ESL)
- Elsevier Microprocessors and Microsystems Journal.
- Aswan Engineering Journal (AswEJ)

ONLINE PROFILES:

- Google Scholar:
<https://scholar.google.com.eg/citations?user=Y6ppIKQAAAAJ&hl=ar>
- Research gate:
https://www.researchgate.net/profile/Ghada_Abozaid?ev=hdr_xprf&_sg=pzl8UrJGECZKLwdW6NTH6Fz_fAo8YpobvviXNyBNKjIktl8wjSoiUYzFu_60AeYF
- LinkedIn
<https://www.linkedin.com/in/ghada-abozaid-95874155/>
- ORCID
<https://orcid.org/0000-0002-8013-5110>

LIST OF PUBLICATIONS:

CONFERENCE PAPERS:

1. Fadl Abdulkarem, **Ghada Abozaid**, Mostafa I. Soliman, “Context-Aware Recommender System Frameworks, Techniques, and Applications: A Survey,” in proc. 2019 International Conference on Innovative Trends in Computer Engineering (ITCE), Egypt, pp 180-185, **2019**.
2. Safaa O. Osman, **Ghada Y. Abozaid**, and Mostafa I. Soliman, “Performance Evaluation of Matrix Multiplication on Intel Xeon E5520” poster in Proc. Of the 2018 International conference on Innovative Trends in Computer Engineering, Egypt, pp 294-295, **2018**.
3. **Ghada Abozaid** and Ahmed El-Mahdy, “Design Space Exploration for a Co-designed Accelerator Supporting Homomorphic Encryption,” Proc. of the 20th International conference on Control Systems and Computer Science (CSCS20), Romania, pp 431-438, **2015**.

- References available upon request -

4. **Abozaid**, G., El-Mahdy, A., & Wada, Y. (2013, September). A Scalable Multiplier for Arbitrary Large Numbers Supporting Homomorphic Encryption. In Proc. Digital System Design (DSD), 2013 Euromicro Conference on (pp. 969-975). IEEE, **2013**.
5. Soliman, Mostafa I., and **Ghada Y. Abozaid**. "Shared cryptography accelerator for multicores to maximize resource utilization." Computer Engineering & Systems (ICCES), 2011 International Conference on. IEEE, **2011**.
6. Soliman, Mostafa I., and **Ghada Y. Abozaid**. "Performance evaluation of a high throughput crypto coprocessor using VHDL." Computer Engineering and Systems (ICCES), **2010** International Conference on. IEEE, **2010**.
7. M. Soliman and G. **Abozaid**, "FastCrypto: Parallel AES Pipelines Extension For General-Purpose Processors," Proc. 2nd International Conference on Advanced Computer Theory and Engineering (ICACTE 2009), Cairo, Egypt, pp. 937-944, September **2009**.
8. M. Soliman and G. **Abozaid**, "Hardware Visualization of the Advanced Encryption Standard (AES) Algorithm," Proc. 18th International Conference on Computer Theory and Applications (ICCTA'2008), Alexandria, Egypt, pp. 85-93, **2008**

JOURNAL PAPERS:

1. **Abozaid**, G., Tisserand, A., El-Mahdy, A. and Wada, Y," Towards FHE in Embedded Systems: A Preliminary Codesign Space Exploration of a HW/SW Very Large Multiplier," IEEE Embedded Systems Letters, 7(3), pp.77-80, **2015**.
2. Soliman, Mostafa I., and **Ghada Y. Abozaid**. "FPGA implementation and performance evaluation of a high throughput crypto coprocessor." Journal of Parallel and Distributed Computing 71.8 (**2011**): 1075-1084.
3. M. Soliman and G. **Abozaid**, "FastCrypto: Parallel AES Pipelines Extension for General-Purpose Processors," Neural, Parallel & Scientific Computations, 18(1), 47-58, **2010**.

RESEARCH INTEREST STATEMENT

- References available upon request -

My research interest aims at utilizing computer engineering in serving community needs. I am looking forward to participating in applied research in computer engineering that uses my skills in helping people. My background is focused on accelerating algorithms performance using custom designed hardware. Hardware programming is one of the main tools I used in the last ten years. I gained quite good experience with exploring system design space during my MSc and PhD work.

REFERENCES

- *Prof. Mostafa Soliman, EJUST University, m.soliman@aswu.edu.eg*
- *Prof Mohamed Orabi, Aswan University. morabi@aswu.edu.eg*
- *Prof Ahmed El-Mahdy, Nile University, ahmed.elmahdy@ejust.edu.eg*
- *Gen. Ashraf Attia, Ex-Governor of Aswan, asraf.attia@mahyat.eg*

- References available upon request -