



MARWA KHAMIS ELTEIR

RESEARCHER

<p>PERSONAL INFORMATION</p>	<p>Full Name: Marwa Khamis Mohamed Hussein Elteir Affiliations: Informatics Research Institute Address: - Mobile No: - E-mail: maelteir@vt.edu Important links: https://scholar.google.com/eg/citations?hl=en&user=INoETHkAAAAAJ&viewp=list_works https://www.researchgate.net/profile/Marwa_Elteir</p>
<p>EDUCATION</p>	<p>(Ph.D. in Computer Science, 2012) (Virginia Tech University, Faculty of Engineering, Computer Science Department - USA)</p> <p>(M.Sc. in Computer Engineering, 2005) (Alexandria University, Faculty of Engineering, Computer and Systems Engineering Department – Egypt)</p> <p>(B.Sc. in Computer Engineering, 2000) (Alexandria University, Faculty of Engineering, Computer and Systems Engineering Department - Egypt)</p>
<p>ACTIVITIES</p>	<p>Scientific Activities</p> <p>(Supervision, Master thesis, January 2017 - June 2019) Supervising Eng. Kholoud Shata during her graduate study in Institute of Graduate Studies and Research, Department of Information Technology, Alexandria University, Egypt. <u>Thesis Title</u>: A MapReduce Framework for Field-Programmable Gate Array.</p> <p>(Supervision, Graduation project, Academic year 2013 -2014) Co-supervising a graduation project of 12 students from Computer and Communication Engineering Department, Faculty of Engineering, Alexandria University, Egypt. <u>Project Title</u>: ANORVI: Accelerated Navigation and Object Recognition for the Visually Impaired</p> <p>(Teaching, Graduate Course, Spring Semester 2015) Advanced Computer Architecture, E-Just. Role: Instructor</p> <p>(Teaching, under-graduate Course, Fall Semester 2013)</p>

Introduction to parallel computing, Faculty of Engineering, Alexandria University. Role: Instructor

(Teaching, graduate Course, December 2007 – March 2008)

Parallel and distributed computing, Arab Academy for Science and Technology, Egypt. Role: Teaching Assistant

Conferences & Workshops Attendance:

- The 10th International Workshop on Accelerators and Hybrid Exascale Systems (AsHES), May 18th 2020.
- The 29th International Conference on Computer from Theory to Applications (ICCTA), AAST, Alexandria, Egypt, 29th to 31st October 2019
- Amazon AWSOME Online Conference, 30 May, 2019.
- Amazon AWS Machine learning Online conference, October 2019
- Workshop from lab to industry, Knowledge Technology Transfer, City of Scientific Research and Technological Applications, Alexandria, Egypt, 16th October 2019
- SciVal: A tool for evidence-based research planning, Presented by Dr. Yehia Eissa, Customer Consultant, Research Intelligence, City of Scientific Research and Technological Applications, Alexandria, Egypt, 9th December, 2018.
- 14th Annual Functional Imaging Conference, Cairo University, Cairo, Egypt, 29th May 2014
- Workshop on ICT Solutions to non-ICT Domains, SmartCI, Alexandria, Egypt, 2nd April 2014
- How to develop a proposal proposal workshop, ARCA, Alexandria, Egypt, 17th to 19th December 2013

Administrative Activities

(Committee member, IRI Institute Council, 2019)

(Committee member, IRI Institute Council, 2013)

(IRI Cloud Computing Hardware Examination Committee, 2013)

(IRI Cloud Computing Infrastructure Vendors Offers Examination Committee, 2013)

(IRI Cloud Computing Infrastructure Tender Specification Committee, 2012)

Extra-curriculum Activities

List your Extra-curriculum Activities here...

e.g. (Leadership, Community services & Volunteer work)

Papers Review

Invited reviewer:

- Springer Cluster Computing Journal, 2013, 2014, 2015, 2016, 2018, 2019, 2020
- Elsevier Alexandria Engineering Journal, 2014, 2015, 2016
- International Journal of Electrical and Computer Engineering (IJECE) , 2019

Contributing reviewer:

- International Conference on High Performance Computing (HIPC) 2010
- The ACM International Symposium on High Performance Distributed Computing (HPDC) 2010
- The IEEE Sixteenth International Conference on Parallel and Distributed Systems (ICPADS) 2010
- The International Conference on Parallel Processing (ICPP) 2010
- 35th IEEE International Parallel Distributed Processing Symposium (IPDPS) 2010
- The 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGRID) 2010
- IEEE Transaction on Parallel and Distributed Systems (TPDS) 2011
- Journal of Computer Science and technology 2011
- SuperComputing Conference (SC) 2012
- 6th International Symposium on Distributed Computing (DISC) 2012
- Architecture of Computing Systems Conference(ARCS) 2016
- 2nd International Symposium on Real-time Data Processing for Cloud Computing (RTDPCC) 2017

Conference Technical Committees Member:

The 8th International Conference on Software and Information Engineering, Cairo, Egypt, 9th April, 2019

Grants

<p>GRANTS & AWARDS</p>	<p>(STDF Research Support Grant – From January 2016 to November 2017) Project Title: Prototyping and Evaluating a Framework for Efficient Programmability of Heterogeneous Computing Resources Role: PI</p> <p>(Information Technology Industry Development Agency (ITIDA) Advanced Research Projects Grant – From September 2015 to September 2016) Project Title: Blink! A Smartphone based Automatic Accident Detection and Notification System PI: Prof. Ahmed El-Mahdy, Associate Professor at E-JUST Role: PostDoc Researcher</p>
	<p>Awards</p> <ul style="list-style-type: none"> • (Top-10 Finalist of the First round of COVID-19 Pandemic TechHack initiative, April 2020) • (VTMENA Fellowship, 2006 – 2012) • (Research Assistantship, Informatics Research Institute, City of Scientific Research and Technological Applications, Egypt , 2001 – 2006) • (B.S. distinction with degree of honor, Department of Computer Science, Alexandria University, Egypt, 2000) • (Award of Academic Excellence, Faculty of Engineering, Alexandria University, 1996 - 1999)
<p>LIST OF PUBLICATIONS</p>	<ul style="list-style-type: none"> • Marwa Elteir, Shaimaa Lazem, Mohamed Azab, “Unleashing the Hidden Powers of Low-cost IoT Boards: GPU-based Edutainment Case Study”, Journal of King Saud University - Computer and Information Sciences (2020). https://doi.org/10.1016/j.jksuci.2020.02.001 • Kholoud Shata, Marwa K. Elteir, Adel A. EL-Zoghabi, “Optimized implementation of OpenCL kernels on FPGAs”, Journal of Systems Architecture (2019), 97: 491. https://doi.org/10.1016/j.sysarc.2019.02.013. Impact factor: 1.199 • Marwa K. Elteir, Shaheera A. Rashwan and Ashraf A. Khalil, “Improving the Efficiency and the Accuracy of 2D Gel Electrophoresis Spot Detection Using Graphics Processing Units”, Current Bioinformatics (2018) 13: 193. https://doi.org/10.2174/1574893612666170725141905. Impact factor: 0.627

- Shaimaa Lazem, Asmaa Shoa'la, Walaa Sheta, **Marwa Elteir**, “Designing Low-Cost Technologies to Improve the Quality of Learning and Health Services in Future Egyptian Smart Cities — Three Case Studies”, 1st Africa and Middle East Conference on Software Engineering (AMECSE 2014), Cairo, Egypt, October 2014
- **Marwa Elteir**, “A MapReduce framework for heterogeneous computing architectures”, PhD Dissertation, Computer Science Department, Virginia Tech, USA, 2012. <http://scholar.lib.vt.edu/theses/available/etd-08242012-153113/>
- **Marwa Elteir**, Heshan Lin, Wu-chun Feng, Tom Scogland, “StreamMR: An Optimized MapReduce Framework for AMD GPUs,” 17th International Conference on Parallel and Distributed Systems (ICPADS), Tainan, Taiwan, December 2011.
- **Marwa K. Elteir**, Heshan Lin, Wu-chun Feng, “Performance Characterization and Optimization of Atomic Operations on AMD GPUs,” IEEE Cluster, Austin, Texas, USA, September 2011.
- **Marwa K. Elteir**, Heshan Lin, Wu-chun Feng, “Enhancing MapReduce via Asynchronous Data Processing,” 16th International Conference on Parallel and Distributed Systems (ICPADS), Shanghai, China, December 2010.
- Shaimaa Lazem, **Marwa K. Elteir**, Ayman Abdel-Hamid, and D. Gracanin, “Prediction-Based Prefetching for Remote Rendering Streaming in Mobile Virtual Environments,” 7th IEEE International Symposium on Signal Processing and Information Technology, December 15-18, 2007.
- Shaimaa Lazem, **Marwa K. Elteir** and Ayman Abdel-Hamid, “Prediction-Based Prefetching for Remote Rendering Streaming in Mobile Virtual Environments,” Technical Report TR-07-24, Computer Science, Virginia Polytechnic Institute and State University, 2007.
- **Marwa K. Elteir**, Khalil M. Ahmed, Vijay V. Raghavan, and Alaaeldein M. Hafez, “Scalable, Adaptive Distributed Association Rule Mining Algorithms for Skewed Datasets,” ECML PKDD 2006 Workshop on Parallel Data Mining, Berlin, Germany, September 18-22, 2006.
- **Marwa K. Elteir**, “Managing Communication Costs of Mining in Distributed Systems”, Master Thesis, Computer and Systems Engineering Department, Faculty of Engineering, Alexandria, Egypt, 2005.