

ILHAAM AZIZ OMAR

Personal Information

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Objective

To join a respectful research organization where I can grow, invest and utilize my engineering knowledge and excellent communication skills towards a career that requires high level of intelligence, dedication and a lot of devotion.

Interests

Investigating how different sectors such as supply chain, healthcare, engineering systems etc. can be revolutionized with modern technology such as blockchain, AI, IoT.

Education

M.S.c. in Engineering Systems & Management **Graduated: 2019**
Khalifa University of Science and Technology

B.S.c. in Electrical & Electronic Engineering **Graduated: 2017**
Khalifa University of Science and Technology

Internship Experience

Electrical & Electronics Engineer Intern **July 2016-August 2016**
Gulf Business Machines (GBM), Dubai, UAE

- Prepare Bills of Materials (BoM) by studying Floor Plans of various projects like hotels, hospitals, Government Buildings etc.
- Understand network structure cabling systems & electrical requirements.

Electrical & Electronics Engineer Intern **May 2016-July 2016**
Pacific Controls Cloud Services FZE, Dubai, U.A.E

- Assist Facilities Management (FM) team in performing preventive maintenance of Electrical, mechanical and ELV systems
- Conduct a seminar in the final stage of internship to demonstrate how to improve the energy efficiency of a data center

Work Experience

Research Associate **January 2020-Present**
Supervised under Dr. Raja Jayaraman at KU

- Conduct literature reviews and determine blockchain technology needs for various applications
- Publish research in renowned journals and conferences

Memristor Undergraduate Research Assistant **February 2015-December 2015**
Supervised under Dr. Baker Mohammad at KUSTAR

- Review published papers in the area of memristor device and its characteristics
- Characterize wet memristor synthesized and work with modeling team to derive model

- Perform web based research on potential industrial sponsors
- Research funding opportunities for KU researchers.

Publications

- [1] H. Abunahla, M. A. Jaoude, **I. A. Omar**, B. Mohammad and M. Al-Qutayri, "Resistive switching in sol-gel derived microscale memristors," *2016 IEEE 59th International Midwest Symposium on Circuits and Systems (MWSCAS)*, 2016, pp. 1-4, doi: 10.1109/MWSCAS.2016.7870045.
- [2] **I. A. Omar**, R. Jayaraman, K. Salah and M. C. E. Simsekler, "Exploiting Ethereum Smart Contracts for Clinical Trial Management," *2019 IEEE/ACS 16th International Conference on Computer Systems and Applications (AICCSA)*, 2019, pp. 1-6, doi: 10.1109/AICCSA47632.2019.9035341.
- [3] **I. A. Omar**, R. Jayaraman, K. Salah, M.C.E. Simsekler, I. Yaqoob, S. Ellahham, "Ensuring protocol compliance and data transparency in clinical trials using Blockchain smart contracts", *BMC Medical Research Methodology*, vol. 20, no. 1, pp. 1-17, 2020.
- [4] **I. A. Omar**, R. Jayaraman, K. Salah, M.C.E. Simsekler, I. Yaqoob, S. Ellahham, "Applications of Blockchain Technology in Clinical Trials: Review and Open Challenges", *Arabian Journal for Science and Engineering*, pp. 1-15, 2020.
- [5] D. Marbough, T. Abbasi, F. Maasmi, **I. A. Omar**, M. Debe, K. Salah, R. Jayaraman, and S. Ellahham, "Blockchain for COVID-19: Review, Opportunities and a Trusted Tracking System," *Arabian Journal for Science and Engineering*, 2020.
- [6] **I. A. Omar**, R. Jayaraman, K. Salah, M. Debe and M. Omar, "Enhancing Vendor Managed Inventory Supply Chain Operations Using Blockchain Smart Contracts," in *IEEE Access*, vol. 8, pp. 182704-182719, 2020, doi: 10.1109/ACCESS.2020.3028031.
- [7] **I. A. Omar**, R. Jayaraman, M. S. Debe, K. Salah, I. Yaqoob and M. Omar, "Automating Procurement Contracts in the Healthcare Supply Chain Using Blockchain Smart Contracts," in *IEEE Access*, vol. 9, pp. 37397-37409, 2021, doi: 10.1109/ACCESS.2021.3062471.
- [8] **I. A. Omar**, Haya R. Hasan, Raja Jayaraman, Khaled Salah, Mohammed Omar, "Implementing decentralized auctions using blockchain smart contracts", in *Technological Forecasting and Social Change*, Volume 168, 2021
- [9] **I. A. Omar**, R. Jayaraman, M. S. Debe, H. R. Hasan, K. Salah and M. Omar, "Supply Chain Inventory Sharing Using Ethereum Blockchain and Smart Contracts," in *IEEE Access*, vol. 10, pp. 2345-2356, 2022, doi: 10.1109/ACCESS.2021.3139829.
- [10] **I. A. Omar**, M. Debe, R. Jayaraman, K. Salah, M. Omar, J. Arshad, "Blockchain-based Supply Chain Traceability for COVID-19 personal protective equipment", *Computers & Industrial Engineering*, Volume 167, 2022.

Achievements

- 2nd place in Electrical and Electronics Engineering category at the Fourth UAE Undergraduate Student Research Competition (UGSRC) (May 2016)
- Ericsson's ICT Professional Foundation Program Certificate (2015)
- Certificate of Recognition in Innovation and Engineering Design Course (2015)
- Engineering design project of the talking digital clock for the visually impaired got published in the Emarat Al Youm Newspaper (May 2014)

Skills and Competencies

- **Technical Skills:**
 - Proficient in Microsoft Office (Word, Power Point and Excel); Prezi
 - Visual Studio (C++); MultiSim; Matlab
 - Remix IDE for Solidity; Xilinx ISE Design Suite; Vivado for Verilog coding
 - **Soft Skills:**
 - Ability to work as part of a team and independently
 - Interpersonal skills and ability to work well under pressure
 - Hard working and self-motivated
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Languages

- Fluent in Arabic and Swahili
 - Excellent command in English
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Referees

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