

# **Ismail Omar Hababeh, PhD**

Member, IEEE

Associate Professor

Computer Science Department

Faculty of Electrical Engineering and Information Technology

German Jordanian University

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## **ACADEMIC QUALIFICATIONS**

- PhD in Computer Science, Leeds Beckett University, Leeds, UK (2008).
- MSc. in Computer Science, Western Michigan University, Michigan, USA (1996).
- BSc. in Computer Science, The University of Jordan, Amman, Jordan (1985).
- Postgraduate Certificate in Research Methodology (PGCRM), Leeds Beckett University, Leeds, UK. (2005).

## **RESEARCH INTERESTS**

Research interests span the areas of machine learning, big data security and analysis, telemedicine systems, and image processing.

## **ACADEMIC POSITION**

Associate Professor - School of Electrical Engineering and Information Technology, German Jordanian University, Amman, Jordan.

## **ADMINISTRATION POSITIONS**

- Acting Vice Dean, September 2015 – September 2016, School of Electrical Engineering and Information Technology.
- Acting Head of Computer Science Department, September 2012 – September 2015, School of Electrical Engineering and Information Technology.

## **PUBLICATIONS**

[1] Ismail Hababeh, Ibrahim Mahameed, Abdelhadi Abdelhadi, and Ahmad Barghash, "Utilizing Convolutional Neural Networks for Image Classification and Securing Mobility of People with Physical and Mental Disabilities in Cloud Systems" **IEEE Access**, Vol. 8, 2020, pp. 163730 – 163745, DOI 10.1109/ACCESS.2020.3020866, IEEE.

- [2] Samer Nofal, Katie Atkinson, Paul Dunne, Ismail Hababeh, "A New Labelling Algorithm for Generating Preferred Extensions of Abstract Argumentation Frameworks". **Proceedings of the 21<sup>st</sup> International Conference on Enterprise Information Systems (ICEIS) 2019, Greece. May 3-5, 2019.** ISBN 978-1-4503-5622-0. <https://dblp.org/db/conf/medes/medes2018.html>
- [3] Mohammad I. Daoud, Amro Saleh, Ismail Hababeh, Rami Alazrai. "Content-based Image Retrieval for Breast Ultrasound Images using Convolutional Auto encoders: A Feasibility Study". **In 2019 3rd International Conference on Bio-Engineering for Smart Technologies (BioSMART)**, Paris, France. Apr. 24-26, 2019. IEEE. 2019. <https://ieeexplore.ieee.org/abstract/document/8734190>
- [4] Ismail Hababeh, Ammar Gharaibeh, Samer Nofal, and Issa Khalil, "An Integrated Methodology for Big Data Classification and Security for Improving Cloud Systems Data Mobility" **IEEE Access**, Vol. 7, 2019, pp. 9153 – 9163, DOI 10.1109/ACCESS.2018.2890099, IEEE.
- [5] Ismail Hababeh, Anton Thabain, and Sahel Alouneh. An Effective Multivariate Control Framework for Monitoring Cloud Systems Performance. **KSII Transactions on Internet and Information Systems**. Vol 13, no. 1, 2019. pp. 86-109. DOI 10.3837/tiis.2019.01.006.  
<http://www.tiis.org/digital-library/manuscript/2222>.
- [6] Sahel Alouneh, Ismail Hababeh, Tamer Alajrami. "Toward Big Data Analysis to Improve Enterprise Information Security". **Proceedings of the 10th International Conference on Management of Digital EcoSystems, MEDES 2018, Tokyo, Japan. September 25-28, 2018. ACM 2018, New York, NY, USA,** ISBN 978-1-4503-5622-0. <https://dblp.org/db/conf/medes/medes2018.html>
- [7] Ammar Gharaibeh, Ismail Hababeh, and Mustafa AlShawaqfeh, "An Efficient Online Cache Replacement Algorithm for 5G Networks" **IEEE Access**, Vol. 6, Issue 1, 2018, pp. 41179 – 41187, DOI 10.1109/ACCESS.2018.2856913, IEEE.
- [8] Sahel Alouneh, Feras Al-Hawari, Ismail Hababeh, and Gheorghita Ghinea, "An Effective Classification Approach for Big Data Security Based on GMPLS/MPLS Networks," **Security and Communication Networks**, vol. 2018, Article ID 8028960, 10 pages, 2018. <https://doi.org/10.1155/2018/8028960>.
- [9] Khalil, Issa, Ismail Hababeh, and Abdallah Khreishah. "Secure inter cloud data migration." **The 7th International Conference in Information and Communication Systems (ICICS) 2016**, Jordan University of Science and Technology, Irbid – Jordan, April 5-7, 2016, pp. 62-67. IEEE.
- [10] Hababeh, Ismail, Sahel Alouneh, and Ala Khalifeh. "A Position Aware Mobile Application for E-Health Services." **The 7th International Conference in**

**Intelligent Systems, Modelling and Simulation (ISMS) 2016**, pp. 144-148. IEEE.

[11] Alouneh, Sahel, Ismail Hababeh, Feras Al-Hawari, and Tamer Alajrami. "Innovative Methodology for Elevating Big Data Analysis and Security." **Proceedings of the 2nd Annual Conference on the Open-Source Software (OSSCOM)**, Dec. 1-3, 2016, Beirut – Lebanon. pp. 1 - 5.

[12] Hababeh, I.; Khalil, I.; Khreishah, A., "Designing High Performance Web-Based Computing Services to Promote Telemedicine Database Management System" **IEEE Transactions on Services Computing**, vol. 8, no.1, 2015. pp.47-64.

[13] Hababeh, I., Al-Sayyed, R.M.H., Alqatawna, J., Majdalawi, Y., Nabelsi, M. "Modeling and Simulation Study of Space Data Link Protocol". **International Journal of Communications, Network and System Sciences**, Vol 7, no. 10, 2014 pp. 440-452.

[14] Ismail Hababeh, Issa Khalil, Abdallah Khreishah, Samir Bataineh. "Promoting Wormhole Security Approaches for Ad-Hoc Networks". **Proceedings of the International Conference on Computational & Network Technologies**. December 2-4, 2013, Adelaide, South Australia, Australia.

[15] Ismail Hababeh, Issa Khalil, Abdallah Khreishah, Samir Bataineh. "Performance Evaluation of Wormhole Security Approaches for Ad-Hoc Networks". **Journal of Computer Science**. Vol 9, no 12, pp. 1626-1637, 2013.

[16] Ismail Hababeh. "Improving Network Systems Performance by Clustering Distributed Database Sites". **The Journal of Supercomputing**. Springer. Vol 59, no. 1, 2012. pp. 249-267. Springer Publishers.

[17] Ismail Hababeh. "A Novel Cloud Computing Data Fragmentation Service Design for Distributed Systems". **Proceedings of the 2011 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA 2011)**. July 18-21, 2011. Las Vegas, Nevada, USA.

[18] Ismail Hababeh. "Intelligent Network Communications for Distributed Database Systems". **Proceedings of the Second International Conference on Advances in Databases, Knowledge, and Data Applications (DBKDA 2010)**. IEEE - DOI 10.1109/DBKDA.2010.11. April 11-16, 2010, Les Menuries, France.

[19] Ismail Hababeh. "A Software Development Tool for Improving Quality of Service in Distributed Database Systems". **Proceedings of the 6<sup>th</sup> International Conference on Innovations in Information Technology (Innovations'09)**. December 15-17, 2009, United Arab Emirates University, Al-Ain, United Arab Emirates.

- [20] Ismail Hababeh, Muthu Ramachandran, Nicholas Bowring. “*Designing a High-Performance Integrated Strategy for Secured Distributed Database Systems*”. **International Journal of Computer Research (IJCR)**. Nova Publishers. Vol 16, No. 1 (2008). pp. 1-52.
- [21] Ismail Hababeh, Muthu Ramachandran, Nicholas Bowring. “*A High-performance Computing Method for Data Allocation in Distributed Database Systems*”. **Journal of Supercomputing**. Springer. Vol 39, No. 1 (2007). pp. 3-18.
- [22] Ismail Hababeh, Muthu Ramachandran, Nicholas Bowring. “*Dynamical Processing Technique for data fragmentation in Distributed Database Systems: Design and Tool Support*”. **Journal of Dynamical Systems and Geometric Theories**. Vol 4, No. 2 (2006). pp. 103-116.
- [23] Ismail Hababeh, Nicholas Bowring, Muthu Ramachandran. “*Performance Evaluation for Data Fragmentation Method in Distributed Database Systems*”. **Proceedings of the 2005 International Conference on Parallel and Distributed Processing Techniques and Applications (ICPDPTA 2005)**, June 27 - 30, 2005, Las Vegas, Nevada, USA. pp. 911-917

## SCIENTIFIC AWARDS

- [1] **Scientific Innovation Award – ICCNT 2013**. *International Conference on Computational & Network Technologies*. December 2-4, 2013, Adelaide, South Australia, Australia.
- [2] **Best Paper Award**. *Proceedings of the 6<sup>th</sup> International Conference on Innovations in Information Technology (Innovations’09)*. December 15-17, 2009, United Arab Emirates University, Al-Ain, United Arab Emirates.

## JOURNAL’S EDITORIAL BOARD

- [1] *Editorial Board, International Journal of Web Applications*. Print ISSN: 0974-7710. Online ISSN: 0974-7729. <https://www.dline.info/ijwa/eb.php>
- [2] Guest Editor, *International Journal of Cloud Applications and Computing (IJCAC ISSN 2156-1834), IGI-Global, USA*. Vol 6. Issue 2, 2016.  
Special Issue on Open-Source Software, <http://www.igi-global.com/journal/international-journal-cloud-applications-computing/41974>

## CONFERENCES ORGANIZATION

- [1] Member of the conference technical committee. *Cooperative Higher Education Conference (Core 2020)*. Amman – Jordan. March 29-30, 2020.  
<https://www.studycoops.com/?v=5&url=en/Chair-&-Committees>.

- [2] Member of the conference scientific committee. **2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT)**. Amman – Jordan. April 9-11, 2019. <https://jeeit.net/about/#overview>
- [3] Member of the conference scientific committee. **5 Edition de la conférence JDSIRT sur les Systèmes d'Information, Réseaux et Télécommunications. L'EST de Meknes, Morocco**. Nov. 28-29, 2018. <http://www.jdsirt.org/>
- [4] Member of the conference scientific committee. **1st International Conference on Open Source Software (OSSCOM 2015)**. German Jordanian University, Amman, Jordan, April 29-30, 2015. <http://www.osscom.org/>
- [5] Co-Chair, **The International Conference on Computational and Network Technologies 2013 (ICCNT)**. December 2-4, 2013, Adelaide, South Australia, Australia. <http://thescipub.com/iccnt/>
- [6] Member of the Technical Program Committee. **The Third International Conference on Advances in Databases, Knowledge, and Data Applications (DBKDA2011)**. January 23 - 28, 2011. St.Marten, Netherlands. <http://www.iaria.org/conferences2011/ComDBKDA11.html>
- [7] Member of the International Program Committee. **The International Conference on IT Convergence and Security 2011 (ICITCS 2011)**. Suwon, Republic of Korea. December 14 - 16, 2011. <http://global.kcis.kr/Icits2011/>
- [8] Member of the International Program Committee. **International Conference on Information Science and Applications (ICISA-2011)**. Seoul, Korea, April 26 - 29, 2011. <http://global.kcis.kr/ICISA2011/Homepage/>
- [9] Member of the International Program Committee. **International Conference on Information Science and Applications (ICISA-2010)**. Seoul, Korea, January 27 - 29, 2010. <http://www.icisa.kr>
- [10] Session Chair. **6<sup>th</sup> International Conference on Innovations in Information Technology (Innovations'09)**. United Arab Emirates University, Al-Ain, United Arab Emirates, December 15-17, 2009. (Session D1-S2 EMB: Computing and Embedded Systems). <http://www.it-innovations.ae>
- [11] Member of the International Program Committee. **6<sup>th</sup> International Conference on Innovations in Information Technology (Innovations'09)**. United Arab Emirates University, Al-Ain, United Arab Emirates, December 15-17, 2009. <http://www.it-innovations.ae>
- [12] Member of the International Program Committee. **International Computer Science and Technology Conference (ICSTC-2009)**. National University, San Diego, CA, USA, June 30th - July 1st, 2009. <http://www.icstc.org>

[13] Member of the International Program Committee. ***International Computer Science and Technology Conference (ICSTC-2008)***. National University, San Diego, CA, USA, April 1-3, 2008. <http://www.icstc.org>

[15] Session Chair. ***The 2005 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA' 05)***. Las Vegas, Nevada, USA, June 27 - 30, 2005. (Connectivity, Communication Issues, Embedding & Algorithms). <http://www.world-academy-of-science.org/worldcomp05>

## **INTERNATIONAL PROJECTS PARTICIPATION**

[1] Eu FP7 Project (Biomed): New Horizons Biomedical Informatics Observatories In Mediterranean Region. Project Number: 318905

[2] Eu Erasmus+ Project (Openmed): A Bottom-Up Approach For Opening Up Education In South-Mediterranean Countries. Project Number: 561651-EPP-1-2015-1-IT-EPPKA2-CBHE-JP

[3] Eu Tempus Project (Msc.Ese): Exporting Master Program In Enterprise Systems Engineering To Jordan, Syria, Tunisia And Egypt. Project Number: 530260-TEMPUS-1-2012-1-DE-TEMPUS-JPCR.

[4] Eu Tempus Project (Osscom): Open-Source Software Communities. Project Number: 544520-TEMPUS-1-2013-1-DETEMPUS-JPHES

[5] European Commission, Erasmus+, KA2 – Capacity-building in the Field of Higher Education (JOVITAL, Jordan opportunity for virtual innovative teaching and learning). Project Number: 586468-EPP-1-2017-1-DE-EPPKA2-CBHE-JP

## **PhD THESIS EXAMINER**



- Thesis Title: Social Media Based Personality Prediction Models.
- Role: External Examiner Member.
- Student Name: Raad Bin Tareaf.
- Thesis Submitted in Fulfillment of the Requirements for the PhD Degree, Faculty of Digital Engineering, University of Potsdam, Germany.
- Completion Date: March 2022

## **MASTER THESIS SUPERVISION**



- Title: Ultrasound image smoothing to reduce ultrasound speckle and preserve edge cues.
- Role: Supervisor.
- Student Name: Lina Rasem Hammad.
- Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of MSc. in Computer Engineering, German Jordanian University.
- Completion Date: May 2020



- Title: Content-based Image Retrieval for Breast Ultrasound Images.
- Role: Co-Supervisor.
- Student Name: Amro Saleh
- Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of MSc. in Computer Engineering, German Jordanian University.
- Completion Date: January 2019



- Title: Toward Big Data Analysis to Improve Enterprise Information Security.
- Role: Co-Supervisor.
- Student Name: Tamer Y.A Al-Ajrami
- Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of MSc. in Computer Engineering, German Jordanian University.
- Completion Date: January 2018



- Title: Cost-aware Stochastic Task Scheduling over Cloud Systems.
- Role: Co-Supervisor.
- Student Name: Medya Omar Othman
- Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of MSc. in Computer Engineering, German Jordanian University.



- Completion Date: May 2017

## **MASTER THESIS EXTERNAL EXAMINER**



- Thesis Title: Improving Feature Selection Using Hybrid Wind Driven Optimization and Simulating Annealing Algorithms Based on Arabic Text Classifier.
- Role: External Examiner.
- Student: Ahmad Naeem Hammadeen
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Science, Faculty of Graduate Studies.
- University: Al-Balqa Applied University.
- Date: November 2020



- Thesis Title: Squirrel Search Algorithm for Feature Selection.
- Role: External Examiner.
- Student: Omar Abdalhadi Alnsoor
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Science, Faculty of Graduate Studies.
- University: Al-Balqa Applied University.
- Date: August 2020



- Thesis Title: Ontology-Based System for Matching Job Descriptions to Job Seekers.
- Role: External Examiner.
- Student: Samer Khaled Tawfeeq Hattab
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Web Intelligence, Faculty of Graduate Studies.
- University: The University of Jordan.
- Date: July 2019





- Thesis Title: Improving the Accuracy of Ovarian Cancer Classification.
- Role: External Examiner.
- Student: Noor Turki Al-Khateeb
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: Yarmouk University.
- Date: December 2018



- Thesis Title: Smart-EIS: Toward an End-To-End Enterprise System Framework.
- Role: External Examiner.
- Student: Jalal Hasan Al-Kiswani
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Enterprise Systems Engineering.
- University: Princess Sumaya University for Technology.
- Date: August 2016

## **MASTER THESIS INTERNAL EXAMINER**



- Thesis Title: Performance Comparison of the Dynamic Distributed Dimensional Data Model Utilizing the SciDB and Apache Accumulo databases
- Role: Internal Examiner
- Student: Mohammad S. Abu Mhana
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: August 2021



- Thesis Title: An Improved Filling Algorithm for 3-D Freehand Ultrasound Systems
- Role: Internal Examiner
- Student: Amer Bassam Al-Ali
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: December 2020



- Thesis Title: Factors that Affect the Performance of MapReduce Applications Running on a Hadoop Cluster
- Role: Internal Examiner
- Student: Khaled Mohamed Tayem
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: August 2020



- Thesis Title: Computerized Assessment Method to Evaluate the Performance of Cerebral Palsy Patients During Computer Game-Based Rehabilitation Exercises
- Role: Internal Examiner.
- Student: Abdullah Al Hussein
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: August 2019



- Thesis Title: Bandwidth Using Forecasting & Network Anomaly Detection Based on Neural Network Approach

- Role: Internal Examiner.
- Student: Omima Ali Al-Mashaalah
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: January 2019



- Thesis Title: Topology management and selective activation algorithm for wireless sensor network with minimum interference
- Role: Internal Examiner.
- Student: Amal Ali Almasri
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: January 2018



- Thesis Title: Enhancing Energy efficiency of IEEE 802.15.4 for Wireless Sensor Networks
- Role: Internal Examiner.
- Student: Rabei Mohammad Tanash
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.
- University: German Jordanian University.
- Date: December 2017



- Thesis Title: Study Analysis and Performance Evaluation of Google QUIC Transmission Protocol
- Role: Internal Examiner.
- Student: Ma'moun Izzat Mansour
- Thesis Submitted in Partial Fulfillment of the Requirements for the Master's Degree in Computer Engineering.

- University: German Jordanian University.
- Date: March 2017

## **INTERNATIONAL COLLABORATION and MOBILITY EXCHANGE**

- Visiting Professor, Teaching Cloud Computing Technologies at Vilnius Gediminas Technical University - Vilnius, Lithuania. May 7- 14, 2017.
- Visiting Professor, Teaching Big Data Technologies at Hochschule Trier University - Trier, Germany. June 16- 23, 2019.
- Visiting Professor, Developing Dual Studies Strategies at Higher Educational Institutions. Stuttgart, Germany and Vienna, Austria. November 3 - 9, 2019.

## **INDUSTRIAL COLLABORATION**

- Industrial coordinator of Computer Science Department, School of Electrical Engineering and Information Technology, September 1st, 2012 - Present.
- Academic coordinator of the Computer Science Dual Studies Track, School of Electrical Engineering and Information Technology. September 2019 – Present.

## **GJU COMMUNITY SERVICES**

- GJU Faculty Open days 2012 - Present
- GJU -ICT club 2012 - 2019

## **NATIONAL COMMUNITY SERVICES**

- Microsoft imagine cub and competitions 2012 - 2018
- National Technology Parade 2016, 2017, 2020

## **COURSES TAUGHT**

- Big Data Technologies
- Cloud Computing
- Database Management systems
- Advanced database design
- Transaction Processing

- Networks Security
- Programming languages: Python, Java, JSP, PHP, .Net, C, and C++
- Visual Programming
- Component Based Computing & Software Development
- Software Engineering
- Web Technologies
- Compilers Construction
- Discrete Structures
- Special Topics in Computer Engineering