

Khaled Almakadmeh, Ph.D.

Associate Professor, Department of Software Engineering, IT-250
Faculty of Prince Al-Hussein Bin Abdullah II for Information Technology
The Hashemite University, P.O. Box 330136, Zarqa (13115) Jordan
Office: (+962) (5) 390 3333 Ext. 4744
Mobile: (+962) (79) 810 7779
Fax: (+962) (5) 382 6625
Email: khaled.almakadmeh@hu.edu.jo
Website: <http://staff.hu.edu.jo/almakadmeh>
Orcid: <http://orcid.org/0000-0001-5811-1975>



Research Interests

Research interest includes Software Requirements Engineering, Software Quality, and Software Metrics.

Education

- *Doctor of Philosophy in Software Engineering* (2013), University of Québec, Montréal, Canada (GPA: 4.30/4.30).
Thesis: Development of a scaling factors framework to improve the approximation of software functional size with COSMIC – ISO 19761.
- *Master of Applied Science in Information Systems Security* (2010), Concordia University, Montréal, Canada (GPA: 3.93/4.30).
Thesis: Statistical modeling for simultaneous data clustering, features selection, and outliers rejection.
- *Bachelor of Science in Computer Science* (2008), Jordan University of Science & Technology, Irbid, Jordan (GPA: 88.50% - Excellent).

Professional Experience

- *Associate Professor* (02/2019 – present)

Department of Software Engineering, The Hashemite University, Jordan

Courses Taught

Fundamentals of Software Engineering	Requirements Engineering
User Interface Design & Implementation	Software Quality Assurance
Software Quality Engineering [Graduate]	Requirements Engineering [Graduate]
Advanced Software Methodologies [Graduate]	

- *Assistant Professor* (09/2013 – 02/2019)

Department of Software Engineering, The Hashemite University, Jordan

- *Assistant Dean (09/2018 – 09/2019)*
Faculty of Prince Al-Hussein Bin Abdullah II for Information Technology, The Hashemite University, Jordan
- *Research Associate (08/2013 – 08/2016)*
Software Engineering Research Laboratory (GÉLOG), Department of Software Engineering & Information Technologies, University of Québec, Montréal, Canada
- *Teacher Assistant (09/2008 – 12/2010)*
Concordia Institute for Information Systems Engineering, Concordia University, Montréal, Canada

Crypto-Protocols & Network Security	Operating Systems Security
Middleware & Applications Security	Security Evaluation Methodologies
Risk Analysis in Info. System Engineering	Programming Methodology I & II

Awards & Scholarships

- Doctorate scholarship (2010-2013), Hashemite University, Jordan.
- Honor student award (2012), University of Québec, Canada.
- Partial tuition scholarship for international students (summer 2010), Concordia University, Canada.
- International tuition fee remission award (winter 2010), Concordia University, Canada.
- International tuition fee remission award (fall 2009), Concordia University, Canada.
- Golden key international honor society, top 15% of master students, Concordia University, Canada.
- Honor student award [5 times] (2005 – 2008), Jordan University of Science & Technology, Jordan.

Research Grants & Industrial Projects

- Khalid T. Al-Sarayreh, **Khaled Almakadmeh** (2012 – 2015). Development of an electronic glass for visually impaired people, 8000 JOD. The Hashemite University, Jordan.
- Ahmad Al-Khasawneh, Fadi Al-Wedyan, Hani Bani-Salameh, Khalid T. Al-Sarayreh, **Khaled Almakadmeh**, Zaidon Al-Sharo', (2015 – 2017). A handy and low cost imaging system of the ocular fundus, 36000 JOD. Scientific Research Fund Office, Ministry of Higher Education and Scientific Research, Jordan.

Publications

Journals

1. **Khaled Almakadmeh**, Khalid T. Al-Sarayreh, Kenza Meridji (2018). A measurement model of the functional size of software maintainability requirements. Journal of Theoretical and Applied Information Technology, Vol. 96, No. 12, pp. 3829-3845.

2. Ghadeer Al-Qahmouss, **Khaled Almakadmeh** (Accepted-2018). Towards a Standard-Based Model of System Dependability Requirements. *International Journal of Advanced Intelligence Paradigms*, Vol. X, No. X, pp. xx-xx.
3. **Khaled Almakadmeh** (2018), System coupling and cohesion requirements model (SC2RM): measurement approach for real time system. *Journal of Theoretical and Applied Information Technology*, Vol. 96, No. 8, pp. 2339-2350.
4. **Khaled Almakadmeh**, Kenza Meridji, Khalid T. Al-Sarayreh (2018). Towards a Reference Model of Software Resources Quality. *Journal of Computer Science*, Vol. 14, No. 2, pp. 182-198. DOI: 10.3844/jcssp.2018.182.198
5. Mahmoud Al-Saadi, Malik Qasaimah, Sara Tedmori, **Khaled Almakadmeh** (2017). HIPAA security and privacy rules auditing in extreme programming environments. *International Journal of Information Systems in the Service Sector*, Vol. 9, No. 1, pp. 1-21. DOI:10.4018/IJISS.2017010101
6. Khalid T. Al-Sarayreh, Lina Hassan, **Khaled Almakadmeh** (2015). A trade-off model of software requirements for balancing between security and usability issues. *International Review on Computers and Software Journal*. Vol. 10, No. 12, pp. 1157-1168. DOI: 10.15866/irecos.v10i12.8094
7. Kenza Meridji, **Khaled Almakadmeh**, Khalid T. Al-Sarayreh, Anas Abuljadayel, Mohammad Khalaf (2015). Towards a requirements model of system security using international standards. *International Journal of Software Engineering and Its Applications*. Vol. 9, No. 4, pp. 139-164. DOI: 10.14257/ijseia.2015.9.4.16
8. Mohammad Bsoul, Alaa Abdallah, **Khaled Almakadmeh**, Nedal Tahat (2016). A round-based data replication strategy. *IEEE Transactions on Parallel and Distributed Systems*. Vol. 27, No. 1 pp. 31-39. DOI: 10.1109/TPDS.2015.2388449
9. Wafa' Alma'aitah, **Khaled Almakadmeh** (2015). An efficient adaptive genetic algorithm for vector space model, *Journal of Theoretical and Applied Information Technology*. Vol.71 No.2, pp. 281-286.
10. **Khaled Almakadmeh**, Alain Abran (2013). Experimental evaluation of an industrial technique for the approximation of software functional size. *International Journal of Computers & Technology*. Vol. 10, No. 3, pp. 1459-1474.
11. Nizar Bouguila, **Khaled Almakadmeh**, Sabri Boutemedjet (2012). A finite mixture model for simultaneous high-dimensional clustering localized feature selection and outlier rejection. *Elsevier Journal of Expert Systems with Applications*, Vol. 39, No. 7, pp. 6641-6656. DOI: 10.1016/j.eswa.2011.12.038.

12. **Khaled Almakadmeh**, Mhammed Almakadmeh (2010). Digital forensics evidence mining tool. Journal of ubiquitous computing and communication, vol. 5, pp. 24-35.

Conferences

13. **Khaled Almakadmeh**, Waf'a Alma'aitah (2017). Comparison of crossover types to build improved queries using adaptive genetic algorithm. International Conference on New Trends in Computing Sciences (ICTCS 2017), Amman, Jordan, pp. 1-5. DOI: 10.1109/ICTCS.2017.18
14. **Khaled Almakadmeh**, Khaled Al-Sarayreh, Kenza Meridji (2015). Towards a design measurement context for software coupling and cohesion requirements. 14th International conference on applied computer and applied computational science, Kuala Lumpur, Malaysia, pp. 111-116.
15. **Khaled Almakadmeh**, Ghadeer Al Gahmouss (2015). A comprehensive survey of system dependability for real time embedded software. International Conference on Intelligent Information Processing, Security and Advanced Communication, Batna, Algeria. DOI: 10.1145/2816839.2816903
16. **Khaled Almakadmeh**, Fatima Abu-Zitoun (2015). A generic model-based methodology of testing techniques to obtain high quality software. International Conference on Intelligent Information Processing, Security and Advanced Communication, Batna, Algeria. DOI: 10.1145/2816839.2816903
17. Hanan Alzawahreh, **Khaled Almakadmeh** (2015). Procedural model of requirements elicitation techniques. International Conference on Intelligent Information Processing, Security and Advanced Communication, Batna, Algeria. DOI: 10.1145/2816839.2816902
18. Ruba Alzyoudi, **Khaled Almakadmeh**, Hutaf Natouryeh (2015). A probability measurement for requirement selection in component-based software development. International Conference on Intelligent Information Processing, Security and Advanced Communication, Batna, Algeria. DOI: 10.1145/2816839.2816871

Thesis Supervision

- Sakhaa Al-Sarayreh, master thesis, main supervisor, (July 2018 – present). Software projects effort estimation using deep-learning technique and ISBSG dataset. The Hashemite University, Jordan.
- AbdelGhaffar Shehadat, master thesis, main supervisor, (June 2018 – May 2019). Software projects effort estimation using deep-learning technique and ISBSG dataset. The Hashemite University, Jordan.
- Hanan Al-Zawahreh, master thesis, co-supervisor (01/2016 – 05/2017). Software configuration management for embedded and real-time software in software engineering domain. The Hashemite University, Jordan.

- Ghadeer Al-Gahmouss, master thesis, main supervisor (05/2015 – 10/2016). A generic model for system dependability of real-time embedded software, The Hashemite University, Jordan.

References

- Professor Alain Abran, Co-Executive Editor of the Guide to the Software Engineering Body of Knowledge (SWEBOK), Department of Software Engineering & Information Technologies, University of Québec, Montréal, Canada. E-mail: alain.abran@etsmtl.ca
- Professor Mourad Debbabi, Concordia University Research Chair Tier I in Information Systems Security and Associate Dean Research & Graduate Studies, Concordia University, Montréal, Canada. E-mail: mourad.debbabi@concordia.ca
- Professor Nizar Bouguila, Concordia Institute for Information Systems Engineering, Concordia University, Montréal, Canada. E-mail: nizar.bouguila@concordia.ca

Committees and Reviewing Activities

- Academic committees at Hashemite University (2013 - present)
 - Director:
 - Graduate studies committee
 - Invitations committee – faculty scientific day 2017
 - Code of conduct committee
 - Student election committee
 - Examinations and invigilation committee
 - Member:
 - International accreditation committee
 - E-university committee
 - Graduate studies committee
 - IT-faculty building rehabilitation committee
 - Examinations and invigilation committee
 - Quality assurance and e-learning committee
 - Summer camps and activities committee
- Steering Committee
 - ✓ The 9th National Technology Parade, Al-Ahliyya Amman University, Jordan, May 2016.
 - ✓ The 8th National Technology Parade, University of Jordan, Jordan, May 2015.
- Reviewer for Internationally Refereed Journals
 - ✓ Information Sciences Elsevier Journal (2012 – present).
 - ✓ Journal of Computer Science, Science Publications (2016 – present).
 - ✓ American Journal of Applied Sciences, Science Publications (2016 – present).

- ✓ International Journal of Mobile Learning and Organization (2016 – present).
- ✓ International Journal of Computer Applications in Technology (2014 – present).
- ✓ International Journal of Information Technology and Management (2014 – present).
- ✓ International Journal of Information and Computer Security (2014 – present).
- ✓ IET Software Journal, IET Research (2016 – present).
- ✓ International Journal of Parallel, Emergent and Distributed Systems (2017 – present).

○ Reviewer for International Conferences

- ✓ IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology, Jordan, 2019.
- ✓ Fifth International conference on Computer Science and Information Tech., UAE, 2018.
- ✓ Fifth International conference on Cybernetics and Informatics, UAE, 2018.
- ✓ IEEE International conference on innovative & creative information tech., Indonesia, 2017.
- ✓ IEEE Conference on Applied Electrical Engineering and Computing Technologies, Jordan 2017.
- ✓ Sixth International Conference on Mobile & Wireless Networks, Vienna, Austria, 2017.
- ✓ First International Conference on Cloud Computing, Turkey, October 2016.
- ✓ Sixth International Conference on information and Communication Systems, Jordan, April 2015.
- ✓ IEEE Conference on Applied Electrical Engineering and Computing Technologies, Jordan 2015.
- ✓ Seventh National Technology Parade (NTP7), Yarmouk University, Jordan, May 2014.
- ✓ Second International Conference on Telecommunication Systems and Networks, Turkey, 2014.
- ✓ Second International Conference on Digital Signal Processing UAE, October 2014.
- ✓ IEEE Conf. on Applied Electrical Engineering and Computing Tech., Jordan, October 2013.

عضوية اللجان خارج الجامعة الهاشمية

- اللجنة التحكيمية، المهرجان الوطني التكنولوجي العاشر، ٢٠١٧، الجامعة الألمانية الاردنية، الأردن
- اللجنة التوجيهية العليا للمهرجان الوطني التكنولوجي التاسع، ٢٠١٦، جامعة عمان الاهلية، الأردن
- اللجنة التوجيهية العليا للمهرجان الوطني التكنولوجي الثامن، ٢٠١٥، الجامعة الأردنية، الأردن
- اللجنة التحكيمية، المهرجان الوطني التكنولوجي السابع، ٢٠١٤، جامعة اليرموك، الأردن

عضوية اللجان داخل الجامعة الهاشمية

العام الجامعي ٢٠١٨/٢٠١٩

- لجنة معرض مشاريع التخرج (مقرر)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة التحقيق والبت في قضايا الطلبة (مقرر)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة الندوات والمؤتمرات (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة تمكين المرأة في قطاع تكنولوجيا المعلومات (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة النوادي العلمية والاكاديميات (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة الارشاد الأكاديمي (مقرر)، قسم هندسة البرمجيات
- لجنة الارشاد الأكاديمي (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة الاتصال مع الشركات (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات

- لجنة استحداث مختبر (Internet of Things (IOT) ، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
العام الجامعي ٢٠١٧/٢٠١٨

- لجنة الدراسات العليا (مقرر)، قسم هندسة البرمجيات
- اللجنة الاجتماعية في الجامعة (عضو)
- لجنة تجهيز مشروع تعليمات خاصة بمركز علم البيانات الضخمة (عضو)
- لجنة الاعتماد الدولي (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة النوادي الاكاديمية (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة التخطيط والتطوير (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات

العام الجامعي ٢٠١٦/٢٠١٧

- لجنة الدراسات العليا (مقرر)، قسم هندسة البرمجيات
- لجنة الضيوف والدعوات (مقرر)، اليوم العلمي ٢٠١٧
- لجنة دراسة امتحان الكفاءة الجامعية لتحديد المجالات المعرفية
- لجنة الاعتماد الدولي (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة تقييم المواد الالكترونية (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات

العام الجامعي ٢٠١٥/٢٠١٦

- لجنة التحقيق في مخالفات الطلبة (مقرر)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة انتخابات الطلبة (مقرر)
- لجنة الاعتماد الدولي (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة الدراسات العليا (عضو)، قسم هندسة البرمجيات

العام الجامعي ٢٠١٤/٢٠١٥

- لجنة الامتحانات والمراقبات (مقرر)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة الاعتماد الدولي (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة الدراسات العليا (عضو)، قسم هندسة البرمجيات
- لجنة التحقيق في مخالفات الطلبة (عضو)

العام الجامعي ٢٠١٣/٢٠١٤

- لجنة ضبط الجودة (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات
- لجنة النشاطات والأندية الصفية (عضو)، كلية الأمير الحسين بن عبد الله الثاني لتكنولوجيا المعلومات

Khaled Almakadmeh an assistant professor of software engineering at the Hashemite University, Jordan since 2013. Dr. Almakadmeh holds a doctorate degree in software engineering from University of Quebec, Canada. He published sixteen research papers in indexed and refereed journals and international conferences. Further, Dr. Almakadmeh has participated in development of curriculum and contents of six courses (undergraduate/graduate) concentrating on fundamentals of software engineering, software requirements engineering, user interface design and implementation, software quality assurance, software quality engineering,

and software process improvement using Six Sigma and CMMI. These courses targets the phases of software development life cycle and software process models. For example, the adaptation and improvement of an organization business processes including software development processes such as Agile process models to accommodate requirements of software projects, and improving the maturity of these business processes using the Capability Maturity Model Integration, and the concepts of total quality management for software quality improvement. Furthermore, On the other side, Dr. Almakadmeh has participated in development of five electronic dossiers for online courses that target engineering and information technology disciplines. In addition, Dr. Almakadmeh has supervised four master students and participated in two industrial projects, one of these projects is funded by the scientific research support fund in the ministry of higher education and scientific research.