

# **Ahmad I. Alaiad**

Assistant Professor of Information Systems,  
Chair of Computer Information Systems Department,  
College of Computer and Information Technology,  
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## **EDUCATION**

- University of Maryland, Baltimore County UMBC, USA Aug 2015  
PhD in Information Systems,  
GPA: **A** (4 / 4)  
Certified as top 7.5% outstanding students, Phi Kappa Phi, USA.
- University of Maryland, Baltimore County UMBC, USA May 2013  
Master of Science in Information Systems,  
GPA: **A** (4 / 4)  
Certified as outstanding graduate students, golden key honour society, USA.
- Yarmouk University, Jordan Sept 2009  
Master in Computer Information Systems,  
GPA: **A** (93.3/100 with Honors),  
Ranked first on the 2009 class
- Al al-Bayt University, Jordan Jan 2006  
Bachelor in Computer Information Systems,  
GPA: **A** (85.8/100 with Honors),  
Ranked second on the 2006 class

## **Short Biography**

Ahmad Alaiad is currently an assistant professor and chair of the department of computer information systems at Jordan University of Science and Technology (JUST), Jordan. Prior to joining JUST University, Alaiad was working as a research associate in information systems department at University of Maryland, Baltimore County, USA. Alaiad received his PhD in Information Systems from University of Maryland, Baltimore County, USA. He has a master degree in Information Systems from University of Maryland, Baltimore County, USA and another master degree in Computer Information Systems from Yarmouk University, Jordan.

Alaiad research interest focuses on Information Systems, Health Informatics, and Data Analytics. His research appears in IEEE Transactions on Professional Communication, International Journal of Medical Informatics, Applied Clinical Informatics, Journal of

Information and Knowledge Management, International Journal of Business Information Systems, International Journal of Healthcare Information Systems and Informatics. His research also appears in reputable conferences such as IEEEs, AMCIS, HICSS, and AMIA, among others.

Alaiad has three funded research projects, namely; hicure (Erasmus+ EU, 1M budget), heal+ (Erasmus+ EU, 1M budget), and ARVR (DAAD, 8K budget). Alaiad served as chair, co chair, and TPC members for several IEEE conferences such as (IEEE HMiMS, IEEE ICICS, IEEE AICSSA, AMCIS, HICSS, among others). Alaiad also served as a member of editorial board and a reviewer for various reputable journals such as (IPM, HPT, IJIM, among others). Alaiad received several research awards such as best paper awards.

Alaiad is the co-founder of data science master program and health informatics master program (curriculum development and local accreditation processing) just established at the CIS department, JUST university. He is currently teaching various courses at master and bachelor level. Alaiad is currently the head of the ABET committee whose goal is to obtain the ABET accreditation this year (just submitted the RFE form).

## **RESEARCH INTEREST**

Health Informatics, Information Systems, Data Analytics, and Human Computer Interaction.

## **FUNDED PROJECTS**

### ***At JUST University, Jordan:***

#### ***1.[2015- 2018]: Heal+, EU***

This project aims to develop a curriculum for a joint master program in health informatics implemented in the MENA region by six universities in partner countries during project period that will enable graduates employ information technology in the health care organization and delivery towards fulfilling the medical market and health demands and challenges. This project also aims to enhance the faculty staff capabilities and infrastructure capacity for partner universities and institutions, to establish an interactive environment with sophisticated modern outcome-based learning approaches and methodologies. Oct. 2015 to Oct. 2018, budget approx. 1M Euros **Funded by Erasmus+ program.**

#### ***2. [2015 -2018]: Hicure, EU.***

Development of Health Informatics integrated curricula in computing and health oriented undergraduate degrees (HiCure). The idea of this project is to develop pathways (of courses) in the undergraduate curricula of computing and public health majors to equip both types of student which necessary knowledge and skills in health informatics. Oct. 2015 to Oct. 2018, budget approx. 1M Euros. **Funded by Erasmus+ program.**

**3. [2017-2018]: *Augmented Reality and Virtual Reality experiences for mobile applications for Islamic Art: DAAD.***

The project supported from German Academic Exchange Service (DAAD), on building Augmented Reality and Virtual Reality experiences for mobile applications to be used to highlight Islamic Art in the involved countries (Jordan, Turkey, and Germany): For this project, we designed different types of mobile applications that use state -of-the-art Augmented Reality for historical recreation. We were also responsible for the technological support (mobile apps and Augmented Reality) for the three involved countries (Jordan, Germany and Turkey). We also accomplished a projection mapping project as a prototype for how it can be used to enhance the presentation the historical content at the different involved museums. Total budget: €80,000/year. **Funded by DAAD.**

**At University of Maryland, USA:**

**3. [2011- 2014]: *Home Healthcare IT Adoption, UMBC, USA.***

Investigating the determinants of adoption for emerging home healthcare technologies such as robots and sensors. Participating in prototype development, survey development, data collection and cleaning, and statistical analysis. In addition, participating in user studies, conducting interviews, analyzing and reporting results. This project uses mixed methods: quantitative and qualitative methods. **Status: Completed.**

**4. [2013-2014]: *Towards Effective and Efficient Adoption of Health IT in Home Health Care, UMBC, USA.***

Assessing the challenges experienced by home healthcare agencies in delivering home healthcare and assessing the current health IT adoption activities and investigating the issues that can be addressed for successful and more efficient health IT adoption. Participating in data collection, analysis and reporting. This project uses qualitative methods. **Funded by AHRQ. Status: Completed.**

**5. [August 2012 – July 2013]: *Using game mechanics to improve outcomes among stem cell transplant survivors, UMBC, USA.***

Collaborating with the University of Texas Health Science Center MD Anderson Cancer Center and Radiant Creative Group, LLC. The goal of the project is to develop mechanics to improve outcomes among stem cell transplant survivors. **Funded by National Institute of Health (NIH). Status: Completed.**

## **WORKING EXPERIENCE**

### **Chairperson**

Department of Computer Information Systems, Jordan University of Science and Technology, Jordan (Sep, 2019 – pres).

### **Assistant Professor**

Department of Computer Information Systems, Jordan University of Science and Technology, Jordan (Sep, 2015 – pres).

### **Research Associate Scientist**

Department of Information Systems, University of Maryland Baltimore County, USA, (Aug 2015- Aug 2016).

### **Research Fellow**

Department of Information Systems, University of Maryland Baltimore County, USA, (May 2015- Aug 2015).

### **Graduate Teaching Assistant**

Department of Information Systems, University of Maryland Baltimore County, USA, (Jan 2013- Aug 2015).

Teaching IS607: introduction to information systems (Master-level course covering Java and database) for **5** consecutive semesters.

### **Graduate Research Assistant**

Department of Information Systems, University of Maryland Baltimore County, USA, (Dec 2011- May 2013).

Involved in various health IT projects funded by NIH and AHRQ.

### **Lecturer**

Division of Continuing and Professional Studies, University of Maryland Baltimore County, USA, (Aug 2014 – Jan 2015).

Developing the curriculums and teaching two new courses: introduction to computer and science (programming basics) & introduction to math and engineering (algebra) for **2** consecutive sessions.

### **Graduate Student Assistant**

Division of Continuing and Professional Studies, University of Maryland Baltimore County, USA, (May 2014 – Aug 2015).

Providing ESL students with academic services and advices. Providing technical support as needed.

### **E-learning Administrator**

Ministry of Education, Jordan, (Aug 2007- Aug 2011).

Administering, developing and implementing the e-learning system.

## **Registrar and Programmer (Oracle)**

Hashemite University, Jordan, (Aug 2006- Aug 2007).

Improving, designing and developing the online student registration system.

## **HONOURS AND AWARDS**

1. ***The Rudolph J. Joenk Award for the Best Paper in the IEEE Transactions on Professional Communication in 2019, IEEE TPC, USA***
2. ***Best Paper Award***, ICHITA conference, 2015, Michigan, USA.
3. ***Best Paper Award***, ICHITA conference, 2013, Michigan, USA.
4. ***Best Poster Award (First Place)***, IS annual research contest, 2014, Maryland, USA.
5. ***Best Poster Award (First Place)***, IS annual research contest, 2015, Maryland, USA.
6. ***Best Paper Award Nominee***, HICSS IEEE conference, Kauai, USA, 2015.
7. ***Summer Research Fellowship Award***, the Graduate School, UMBC, USA, 2015.
8. ***Award for Staff Outstanding Achievement***, ELI, UMBC, USA, 2015.
9. ***An honours certificate*** of outstanding grad students, golden key international honour society for outstanding grad students, golden key international honour society, USA.
10. ***An honours certificate*** of top 7.5% outstanding students, the honor society of Phi Kappa Phi, USA.
11. ***An honours certificate*** of top students at Yarmouk university, Jordan from the prime minister and minister of defence Dr. Marouf Al-Bakhit.
12. ***First rank*** on the 2009 master computer information systems class, Yarmouk university, Jordan.
12. ***Second rank*** on the 2006 bachelor computer information systems class, Al al-Bayt University, Jordan.
13. ***Full scholarship*** based on academic achievements from Jordan university of science and technology to pursue a PhD in computer information systems from University of Maryland, USA.
14. ***Full scholarship*** based on academic achievements from ministry of higher education and scientific research, Jordan to pursue a master degree in computer information systems from Yarmouk university, Jordan.

## **LIST OF PUBLICATIONS**

### ***Peer-reviewed papers:***

#### **2020**

- 1) **Alaiad, A.** Abualrub S. Alnsour Y. Alsharo M. *Data Mining Algorithms Predicting Different Types of Cancer. The 26th Americas Conference on Information Systems (AMCIS), UTAH, USA, 2020. Accepted. (Top IS conference, Class A).*
- 2) **Ahmad Alaiad, Omara Mustafa,** The impact of Deep learning algorithms with MRI Systematic review. *2020 IEEE 11th International Conference*

on Information and Communication Systems (ICICS), 2020. DOI: [10.1109/ICICS49469.2020.239508](https://doi.org/10.1109/ICICS49469.2020.239508). (Index: Scopus)

- 3) **Alaiad, A.** Momani A. Alnsour Y. Alsharo M. The Impact of Speech Recognition Systems on The Productivity and The Workflow in Radiology Departments. *The 26th Americas Conference on Information Systems (AMCIS), UTAH, USA, 2020. Accepted. (Top IS conference, Class A).*
- 4) **Alaiad, A.** Alrawshdaih S. Alnsour Y. Alsharo M. *Increasing the Effectiveness of Clinical Practices with Health Informatics: Systematic Literature Review. The 26th Americas Conference on Information Systems (AMCIS), UTAH, USA, 2020. Accepted. (Top IS conference, Class A).*
- 5) **Ahmad Alaiad, Tala El-shqeirat,** Text mining in radiology reports (Methodologies and algorithms), and how it affects on workflow and supports decision making in clinical practice (Systematic review). *2020 IEEE 11th International Conference on Information and Communication Systems (ICICS), 2020. DOI: [10.1109/ICICS49469.2020.239506](https://doi.org/10.1109/ICICS49469.2020.239506). (Index: Scopus)*
- 6) **Alaiad, A.** Mugdasi E. Alnsour Y. Alsharo M. *The adoption factor of telemedicine in chronic disease. The 26th Americas Conference on Information Systems (AMCIS), UTAH, USA, 2020. Accepted. (Top IS conference, Class A).*
- 7) Aleroud A. Abushanab E. **Alaiad A.** Alshbool Y. An Examination of Susceptibility to Spear Phishing Cyber Attacks in Non-English Speaking Communities. *Journal of Information Security and Applications. 2020. To appear. (Index: Scopus)*
- 8) Alkhatib K. **Alaiad A.** Mustafa M. Alzubi A. *Impact factors affecting Entrepreneurial Intention of Jordanian Private Universities Students: A Mediation Analysis of Perception toward Entrepreneurship. Sustainable and Energy Efficient Computing Paradigms for Society. EAI/Springer Innovations in Communication and Computing. 1st ed. 2021. To appear.*
- 9) Najadat H, Ebrahim M, Alsmirat M , Shatnawi O, Al-Rashdan M. **Alaiad A.** *Investigating the Classification of Human Recognition on Heterogeneous Devices using Recurrent Neural Networks. Sustainable and Energy Efficient Computing Paradigms for Society. EAI/Springer Innovations in Communication and Computing. 1st ed. 2021. To appear.*

## 2019

- 10) **Ahmad Alaiad,** Yazan Alnsour, Mohammad Alsharo. Virtual Teams: Thematic Taxonomy, Constructs Model, and Future Research Directions. *IEEE transaction on Professional Communication (IEEE TPC), 62 (3), pp. 211-238, 2019. DOI: [10.1109/TPC.2019.2929370](https://doi.org/10.1109/TPC.2019.2929370). (Impact factor: 1.96) (Index: Scopus [Q1], Thomson Reuters [SSCI], ABDC [B]).*
- 11) **Ahmad Alaiad,** Mohammad Alsharo, Yazan Alnsour. The Determinants of M-Health Adoption in Developing Countries: An Empirical Investigation. *Applied Clinical Informatics, 10 (5), pp. 820-840, 2019. DOI: [10.1055/s-0039-1697906](https://doi.org/10.1055/s-0039-1697906). (Impact factor: 1.3). (Index: Scopus [Q2], Thomson Reuters [SCIE]).*
- 12) **Alaiad, A.** Najadat, H. Mohsen, B. Balhaf, K. Classification and association-rule mining technique for predicting chronic kidney disease. *Journal of*

*Information and Knowledge Management (Accepted). (Impact factor: 0.39) (Index: Scopus [Q2], Thomson Reuters [ESCI], ABDC [C]).*

- 13) Najadat, H. **Alaiad, A.** Abu Alasal, S. Mrayyan, G. Alsmadi, I. Integration of Data Envelopment Analysis and Clustering Methods. *Journal of Information and Knowledge Management (Accepted). (Impact factor: 0.39) (Index: Scopus [Q2], Thomson Reuters [ESCI], ABDC [C]).*
- 14) Ayidh alqahtani, Ajwani Garima, and **Ahmad Alaiad**. Crimes Analysis in Chicago City. *2019 IEEE 10th International Conference on Information and Communication Systems (ICICS), 2019. DOI: [10.1109/IACS.2019.8809142](https://doi.org/10.1109/IACS.2019.8809142).*
- 15) Raghad Obiedat, Rehab Duwairi, **Ahmad Alaiad**. A Collaborative Recommendation System for Online Courses Recommendations. *The IEEE International Conference on Deep Learning and Machine Learning in Emerging Applications (Deep-ML), Istanbul, Turkey, 26-28 August 2019. DOI: [10.1109/Deep-ML.2019.00018](https://doi.org/10.1109/Deep-ML.2019.00018). (Index: Scopus)*

## 2018

- 16) **Ahmad Alaiad**, Hassan Najadat, Nusaibah Almnayyes, Ashwaq Khalil. Associative Classification of the Jordanian Hospitals Efficiency Based on DEA. *IEEE Conference on Big Data and Analytics 2018. DOI: [10.1109/ICBDAA.2018.8629579](https://doi.org/10.1109/ICBDAA.2018.8629579). (Index: Scopus)*
- 17) **Alaiad, A.** Duwairi, R. Fraihat, F. Survey: Deep Learning Concepts and Techniques for Electronic Health Record. *15th ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2018. DOI: [10.1109/AICCSA.2018.8612827](https://doi.org/10.1109/AICCSA.2018.8612827). (Index: Scopus)*
- 18) Al-Sarayrah, W. **Alaiad, A.** Jararweh, Y. Social Networking Sites and Deaf and Hard of Hearing People in Jordan: Characteristics and Preferences. *15th ACS/IEEE International Conference on Computer Systems and Applications AICCSA 2018. DOI: [10.1109/AICCSA.2018.8612893](https://doi.org/10.1109/AICCSA.2018.8612893). (Index: Scopus)*
- 19) Mohsen, G. Al-Ayyoub, M. Hmeidi, I. **Al-Aiad, A.** On the Automatic Construction of an Arabic Thesaurus. *2018 9th International Conference on Information and Communication Systems (ICICS), 2018. DOI: [10.1109/IACS.2018.8355431](https://doi.org/10.1109/IACS.2018.8355431). (Index: Scopus)*

## 2017

- 20) **Alaiad, A.** Zhou, L. Patients' Adoption of WSN based Smart Home Healthcare Systems: An Integrated Model of Facilitators and Barriers. *IEEE Transactions on Professional Communication (IEEE TPC), 60 (1), pp. 4-23, 2017. DOI: [10.1109/TPC.2016.2632822](https://doi.org/10.1109/TPC.2016.2632822). (Impact factor: 1.96). (Impact factor: 1.96) (Index: Scopus [Q1], Thomson Reuters [SSCI], ABDC [B]).*
- 21) Alnsour, Y. Alsharo, M. **Alaiad, A.** Exploring the Change of Attitude among Healthcare Professionals towards Adopting a National Health Information System: The Case of Jordan. *International Journal of Business Information Systems (Accepted). DOI: [10.1504/IJBIS.2020.10019466](https://doi.org/10.1504/IJBIS.2020.10019466). (Index: Scopus [Q2], ABDC [C]).*

## 2016

- 22) **Alaiad, A.** Alkhatib, K. Al-Ayyad, M. Hmeidi, I. A Conceptual Framework of Smart Home Context: An Empirical Investigation, *International Journal Of Healthcare Information Systems And Informatics*, 11(3):42-56, July 2016. DOI: [10.4018/IJHISI.2016070103](https://doi.org/10.4018/IJHISI.2016070103). (Impact factor: 0.1) (Index: Scopus [Q3], Thomson Reuters [ESCI], ABDC [C]).
- 23) Qusai Q. Abuein, Mohammed Q. Shatnawi, Radwan Batiha, **Ahmad Al-Aiad** and Suzan Amareen, Content-Based Image Retrieval for Medical Applications with Flip-Invariant Consideration Using Low-Level Image Descriptors, *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol 7(4) 279-283, April 2016. DOI: [10.14569/IJACSA.2016.070435](https://doi.org/10.14569/IJACSA.2016.070435). (Impact factor: 1.3) (Index: Scopus, Thomson Reuters [ESCI]).
- 24) Hmiedi, **A. Alaiad**, A. Almomani, S. Bnian, M. A Simple Present and Past Sentences Machine Translation from Arabic Language (AL) to English language, the IEEE International Conference on Engineering & MIS ICEMIS, Morocco, 2016. DOI: [10.1109/ICEMIS.2016.7745302](https://doi.org/10.1109/ICEMIS.2016.7745302). (Index: Scopus)
- 25) **Alaiad, A.** Zhou, L. Expectations Among Patients and Health Professionals Regarding the acceptance of Emerging Home health Care Information Technology. *Qualitative Health Research*. (Under review) (5-year impact factor: 1.625).
- 26) Alkhatib, K., **Al-Aiad, A.** The Influences of Privacy, Security and Legal Concerns on Online Banking Adoption A Conceptual Framework, Handbook of Research on Online Banking Security", IGI Global, Book Chapter, 2016. Book Chapter. DOI: [10.4018/978-1-5225-0864-9.ch007](https://doi.org/10.4018/978-1-5225-0864-9.ch007). (Index: Scopus)

## 2015

- 27) **Alaiad, A.** Smart Information Technologies in Home Healthcare: An Integrative Adoption Model. *Journal of Health and Medical Informatics (JHMI)*, 6 (4), pp. 71, 2015. (Impact factor: 1.98).
- 28) **Alaiad, A.** Zhou, L. Patients' Behavioral Intentions toward Using WSN based Smart Home Healthcare Systems: An Empirical Investigation. *The 48th Annual Hawaii International Conference on System Sciences (HICSS)*, IEEE Computer Society, Kauai, USA, pp. 824 - 833 2015. (BEST PAPER AWARD NOMINEE + Top IS/CS conference, Class A). DOI: [10.1109/HICSS.2015.104](https://doi.org/10.1109/HICSS.2015.104)
- 29) **Alaiad, A.** An Empirical Investigation of Preferences toward Using WSN based Smart Home Healthcare Systems: Patient's Perspectives. *Graduate Research Conference*, Maryland, USA, 2015.
- 30) **Alaiad, A.** Zhou, L. The Moderating Effect of Demographic Characteristics on Home Healthcare Robots Adoption: An Empirical Study. *Proceedings of the Tenth Midwest Association for Information Systems Conference*, Pittsburg, Kansas, May 14-15, 2015.
- 31) Alqahtani, A. Alsalmah, A. **Alaiad, A.** Examining the Performance of Older and Younger Adults when Interacting with a Mobile Solution Supporting Levels of Dexterity. *Transactions of International Conference on Health Information Technology Enhancement (ICHITE)*, Michigan, 2015.



- 32) **Alaiad, A.** Ziaei, D. Al-Ayyad, M. Smart Home Healthcare Settings: A Qualitative Study of the Domain Boundary. *Transactions of International Conference on Health Information Technology Enhancement (ICHITE)*, Michigan, 2015. **(BEST PAPER AWARD)**
- 33) **Alaiad, A.** Al-Ayyad, M. Assistive Robots in Home Healthcare Settings: Facilitators and Barriers of Usage. LAP LAMBERT Academic Publishing, Germany. ISBN 978-3-659-43184-5. 2015. Book.

## 2014

- 34) **Alaiad, A.** Zhou, L. The Determinants of Home Healthcare Robots Adoption: An Empirical Investigation. *International Journal of Medical Informatics (IJMI)*, 83 (11), pp. 825–840, 2014. DOI: [10.1016/j.ijmedinf.2014.07.003](https://doi.org/10.1016/j.ijmedinf.2014.07.003). **(5-year impact factor: 3.2) (Index: Scopus [Q1], Thomson Reuters [SCIE], ABDC [A]).**
- 35) **Alaiad, A.** Zhou, L. Koru, G. An Exploratory Study of Home Healthcare Robots Adoption Applying the UTAUT Model. *International Journal of Healthcare Information Systems and Informatics (IJHISI)*, 9(4), pp. 44-59, 2014. DOI: [10.4018/ijhisi.2014100104](https://doi.org/10.4018/ijhisi.2014100104). **(Impact factor: 0.25). (Index: Scopus [Q3], Thomson Reuters [ESCI], ABDC [C]).**
- 36) **Alaiad, A.** Zhou, L. A Conceptual Framework of IT based Home Healthcare Context. Health Informatics & Technology Conference. *Journal of Health and Medical Informatics (JHMI)*, 5 (3), pp. 76, 2014. **(Impact factor: 1.98).**
- 37) AlHuwail, D. Koru, G. **Alaiad, A.** Norcio, A. Topaz, M. Health Information Technology Adoption in Home Health. *American Medical Informatics Association Annual Symposium (AMIA)*, Washington DC, USA, 2014. **(Acceptance rate: 35% + Top HI conference)**
- 38) **Alaiad, A.** Zhou, L. Koru, G. The Adoption of Home Healthcare Robots: Investigating the Moderating Effect of Demographic Characteristics. *The 5th Annual Workshop on Health Information and Economics (WHITE)*, Washington DC, USA, 2014. **(Acceptance rate: 16% + Top HI conference)**
- 39) **Alaiad, A.** Zhou, L. Barriers to Adoption of emerging Home Healthcare Information Technology: A Qualitative Study. *Home Healthcare and Hospice Information Technology*, Washington DC, USA, 2014. **(Acceptance rate: 40%).**

## 2013

- 40) **Alaiad, A.** Zhou, L. Patient Behavioural Intention toward Adopting Healthcare Robots. *The 19th Americas Conference on Information Systems (AMCIS)*, Chicago, USA, 2013. **(Top IS conference, Class A).**
- 41) **Alaiad, A.** Zhou, L. Koru, G. An Empirical Study of Home Healthcare Robots Adoption using UTAUT Model. *Transactions of International Conference on Health Information Technology Enhancement (ICHITE)*, Kalamazoo, USA, 2 (1), pp. 185- 198, 2013. **(BEST PAPER AWARD).**

## 2012

- 42) AlEroud, A. Alsmadi, I. **Alaiad, A.** Alradatdah, G. The Effects of Neural Networks Training Factors on Stock Price Predication Errors. *The Seventh IASTED International Conference on Communication, Internet, and Information Technology*, Baltimore, USA, PP. 362-368, 2012.

### **Peer-reviewed conference abstracts and posters:**

- 43) **Alaiad, A.** Zhou, L. Attitudes toward Adopting Home Healthcare Robots. *IS Annual Research Contest*, 2013, Maryland, USA.
- 44) AlHuwait, D. Koru, G. **Alaiad, A.** Norcio. Clinician's Perspectives on Effective & Efficient Health IT Adoption in Home Healthcare: A Qualitative Study of Home Health Agencies in the State of Maryland. *IS Annual Research Contest*, 2014, Maryland, USA. (**BEST POSTER AWARD, FIRST PLACE**)
- 45) **Alaiad, A.** Zhou, L. Koru, G. The Adoption of Home Healthcare Robots: Investigating the Moderating Effect of Demographic Characteristics. *IS Annual Research Contest*, 2014, Maryland, USA.
- 46) **Alaiad, A.** Zhou, L. The Determinants of Home Healthcare Robots Adoption: An Empirical Investigation. *IS Annual Research Contest*, 2015, Maryland, USA.
- 47) **Alaiad, A.** Zhou, L. Patients' Adoption of WSN based Smart Home Healthcare Systems: An Integrated Model of Facilitators and Barriers. *IS Annual Research Contest*, 2015, Maryland, USA. (**BEST POSTER AWARD, FIRST PLACE**).

### **Books:**

- 48) **Alaiad, A.** Al-Ayyad, M. Assistive Robots in Home Healthcare Settings: Facilitators and Barriers of Usage. LAP LAMBERT Academic Publishing, Germany. ISBN 978-3-659-43184-5. 2015.
- 49) Alkhatib, K., **Al-Aiad, A.** The Influences of Privacy, Security and Legal Concerns on Online Banking Adoption A Conceptual Framework, Handbook of Research on Online Banking Security", IGI Global, Book Chapter, 2016. (**Index: Scopus**)

### **Papers Submitted:**

- 1) Ahmad Alaiad, Mohamad Alsharo, Yazan Alnsour, Facilitators and Barriers for the elderly's Adoption of IoT based Smart Home Healthcare Systems in Developing Countries, SUBMITTED to Journal of Systems and Information Technology.
- 2) Ahmad Alaiad, Mohamad Alsharo, Yazan Alnsour. Online video reviews helpfulness: An empirical investigation of consumer-generated video reviews in YouTube. SUBMITTED to Electronic Commerce Research Journal.
- 3) Ahmad Alaiad, Ismail Hmiedi. Buthina Makhadmih. A Comparative Study of Supervised Machine Learning Algorithms. SUBMITTED to The International Workshop on Deep and Transfer Learning (DTL 2019), Granada, Spain, 22-25 October, 2019.
- 4) Ahmad Alaiad, Yazan Nsour. IoT-based Healthcare Wearables Adoption as a Part of an Ecosystem: The Enablers and Barriers in Developing Countries. SUBMITTED to Journal of Enterprise Information Systems
- 5) Ahmad Alaiad, Ahmad Aleroud, Emad AbuShanab, Mitigating Spear Phishing Attacks on Academic Institutions: Toward Interactive, Language-based Security

Awareness Training. SUBMITTED to Journal of Information Security and Application

- 6) Rehab Dewiri, Ahmad Alaiad, Raghad Obaidata. A Hybrid Course Recommendation System based on Neural Networks. SUBMITTED to Journal of Computational Science.
- 7) Hassan Najadat, Ahmad Alaiad, Yarub Wahsheh, "Lex-Spam: Lexicons-Spam Hybrid System to Evaluate the Spam of Population Arabic Hashtags in Twitter Social Network" SUBMITTED to Journal: Computers and Electrical Engineering

## **TALK AND PRESENTATION**

In addition to the above 5 abstracts and posters, I presented the following papers in the corresponding conferences:

### **2019**

1. **Ahmad Alaiad.** Crimes Analysis in Chicago City. *2019 10th International Conference on Information and Communication Systems (ICICS), 2019.*

### **2018**

2. **Ahmad Alaiad, A.** On the Automatic Construction of an Arabic Thesaurus. *2018 9th International Conference on Information and Communication Systems (ICICS), 2018.*
3. **Ahmad Alaiad.** Associative Classification of the Jordanian Hospitals Efficiency Based on DEA. *IEEE Conference on Big Data and Analytics 2018, Linkawi Malaysia*

### **2017**

4. **Ahmad Alaiad.** *Decision Support Systems for Healthcare Course Development.* Hicure Developed Courses Evaluation Workshop & Case Studies Development Capacity Building Workshop 16 May -21 May 2017, face-to-face, Hosting Institution: Hochschule Niederrhein, Reinarzstrabe 49, 47805 Krefeld, **Germany**, 2017.
5. **Ahmad Alaiad.** *Integration of courses in the IT curriculum (structure and progress).* Hicure Developed Courses Evaluation Workshop & Case Studies Development Capacity Building Workshop 16 May -21 May 2017, face-to-face, Hosting Institution: Hochschule Niederrhein, Reinarzstrabe 49, 47805 Krefeld, **Germany**, 2017.
6. **Ahmad Alaiad.** *JUST elearning infrastructure and readiness.* Hicure Developed Courses Evaluation Workshop & Case Studies Development Capacity Building Workshop 16 May -21 May 2017, face-to-face, Hosting Institution: Hochschule Niederrhein, Reinarzstrabe 49, 47805 Krefeld, **Germany**, 2017.
7. **Ahmad Alaiad.** *Design the curricula academic course modules.* 3rd Project Meeting of HEAL+ 4 – 6 April 2017 Cairo, **Egypt**, 2017
8. **Ahmad Alaiad.** Hicure training for HI Courses implementation Workshop Aug -20 Aug 2017, face-to- face, Hosting Institution: JUST, Irbid, **Jordan**, 2017.

### **2016**

9. **Ahmad Alaiad.** *eLearning at JUST: Moodle.* Hicure Health Informatics Pathway Structures and Course Descriptions Workshop November -1 December 2016, hicure project, face-to-face, Hosting Institution: Atilim University, **Turkey**, 2016.
10. **Ahmad Alaiad.** *Exploring Potential Ways for Integrating HI into CIT curricula at JUST.* Health Informatics Pathway Structures and Course Descriptions Workshop November -1 December 2016, hicure project, face-to-face, Hosting Institution: Atilim University, **Turkey**, 2016.
11. **Ahmad Alaiad.** *Predictive analytics for medical health data course development.* Health Informatics Pathway Structures and Course Descriptions Workshop November -1 December 2016, hicure project, face-to-face, Hosting Institution: Atilim University, **Turkey**, 2016.
12. **Ahmad Alaiad.** *Health Informatics Background and current research.* Hicure kick-of meeting 12-14 Jan 2016, Amman, **Jordan**, 2016.

## 2015

13. **Alaiad, A.** Zhou, L. A Conceptual Framework of IT based Home Healthcare Context. *Health Informatics & Technology Conference.* Baltimore, **USA**.
14. **Alaiad, A.** An Empirical Investigation of Preferences toward Using WSN based Smart Home Healthcare Systems: Patient's Perspectives. *Graduate Research Conference*, Maryland, **USA**, 2015.
15. **Alaiad, A.** Zhou, L. The Moderating Effect of Demographic Characteristics on Home Healthcare Robots Adoption: An Empirical Study. Proceedings of the Tenth Midwest Association for Information Systems Conference, **Pittsburg**, Kansas, May 14-15, 2015.
16. **Alaiad, A.** Zhou, L. Smart Information Technologies in Home Healthcare: An Integrative Adoption Model. The 2nd International Conference on Health Informatics and Technology, July 27-29, 2015 Valencia, **Spain**.

## 2014

17. **Alaiad, A.** Zhou, L. Koru, G. The Adoption of Home Healthcare Robots: Investigating the Moderating Effect of Demographic Characteristics. *The 5th Annual Workshop on Health Information and Economics (WHITE)*, **Washington DC**, USA, 2014.
18. **Alaiad, A.** Zhou, L. Barriers to Adoption of emerging Home Healthcare Information Technology: A Qualitative Study. *Home Healthcare and Hospice Information Technology*, Washington DC, **USA**, 2014.
19. **Alaiad, A.** The Determinants of Home Healthcare Robots Adoption: An Empirical Investigation. *Artificial Intelligence Group Meeting*, UMBC, Baltimore, Maryland, **USA**, 2014.

## 2013

20. **Alaiad, A.** Patient Behavioural Intention toward Adopting Healthcare Robots. *Artificial Intelligence Group Meeting*, UMBC, Baltimore, Maryland, USA, 2013.
21. **Alaiad, A.** Zhou, L. Patient Behavioural Intention toward Adopting Healthcare Robots. *The 19th Americas Conference on Information Systems (AMCIS)*, Chicago, **USA**, 2013.
22. **Alaiad, A.** Zhou, L. Koru, G. An Empirical Study of Home Healthcare Robots Adoption using UTAUT Model. *Transaction of International Conference on*

*Health Information Technology Enhancement (ICHITE), Kalamazoo, USA, 2013.*

## **RESEARCH SERVICES**

### ***Editorial Board:***

1. **Editorial board member**, Edorium Journal of Robotic Surgery.
2. **Editorial board member**, Journal of Healthcare.

### ***Conference TPC Member:***

3. **TPC Member**, The IEEE Int. Workshop on Sentiment Analysis and Mining of Social Networks, Granada, Spain. October 22-25, 2019.
4. **TPC Member**, ITU Kaleidoscope 2019 - ICT for Health: Networks, standards and innovation, Atlanta, USA. 4-6 Dec 2019.
5. **TPC Member**, The 10th International Conference on Information and Communication Systems (ICICS 2019), Irbed, Jordan, 2019.
6. **TPC Member**, The 15th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-2018), Aqaba, Jordan, 2018.
7. **TPC Member**, The 9th International Conference on Information and Communication Systems (ICICS 2018), Irbed, Jordan, 2017.
8. **TPC Member**, The 8th International Conference on Information and Communication Systems (ICICS 2017), Irbed, Jordan, 2017.
9. **TPC Member**, The 7th International Conference on Information and Communication Systems (ICICS 2016), Irbed, Jordan, 2016.
10. **TPC Member**, The 7th International Conference on Ambient Systems, Networks and Technologies (ANT-2016), Madrid, Spain, 2016.
11. **TPC Member**, The 13th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-2016), Agadir, Morocco, 2016.

### ***External Reviewer:***

12. International Journal of Electronic Commerce, 2020
13. Applied Clinical Informatics Journal, 2020
14. Journal of Enabling Technologies, 2020
15. Information Processing and Management Journal, 2019
16. Health Policy and Technology, 2019
17. Smart Technologies and Smart Cities EAI/Springer, 2019
18. International journal of web-based community, 2019
19. International journal of Information Management, 2019
20. International journal of knowledge engineering and data mining, 2019
21. Computers in Biology and Medicine, 2019
22. Information System Management, 2018
23. Journal of Integrated Pharmacy Research and Practice, 2017
24. Journal of Multidisciplinary Healthcare, 2017

25. The 49th Hawaii International Conference on System Sciences (HICSS-49), IEEE, Kauai, USA 2016.
26. The 7th International Conference on Information and Communication Systems (ICICS 2016), Irbed, Jordan, 2016.
27. The 7th International Conference on Ambient Systems, Networks and Technologies (ANT-2016), Madrid, Spain, 2016.
28. AMIA American Medical Informatics Association Annual Symposium (AMIA), USA, 2015.
29. International Conference on Information Systems Development (ISD), China, 2015.
30. AMIA American Medical Informatics Association Annual Symposium (AMIA), USA, 2014.
31. The 20th Americas Conference on Information Systems (AMCIS), USA, 2014.
32. Home Healthcare and Hospice Information Technology (H3IT), USA, 2014
33. The 19th Americas Conference on Information Systems (AMCIS), USA, 2013.
34. International Conference on Health Information Technology Enhancement (ICHITE), USA, 2013.
35. American Medical Informatics Association (AMIA) Joint Summits on Translational Science, USA, 2013.
36. China Summer Workshop in Information Management (CSWIM), China, 2013.
37. The 31st International Conference in Conceptual Modelling ER, Italy, 2012.

***Conference Management Services:***

21. **Chair, Health Informatics IS track**, the 11th International Conference on Information and Communication Systems (ICICS 2020), Irbed, Jordan, 2020
22. **Chair**, IEEE Health and Medical informatics management and security symposium, Granada, Spain, 2019.
23. **Chair, information system track**, the 10th International Conference on Information and Communication Systems (ICICS 2019), Irbed, Jordan, 2019.
24. **Chair, data science track**, the 9th International Conference on Information and Communication Systems (ICICS 2018), Irbed, Jordan, 2018.
25. **Co-chair, e-health track**, the 7th International Conference on Information and Communication Systems (ICICS 2016), Irbed, Jordan, 2016.
26. **Coordinator**, IEEE International Conference on Intelligence and Security Informatics, ISI 2012, Washington DC, USA, 2012.
27. **Organizer**, H3IT Home Healthcare and Hospice Information Technology, Washington DC, USA, 2014.
28. **Facilitator**, Home Healthcare Information Technology Summit, Baltimore, MD, USA, 2014.
29. **Coordinator**, IEEE International Conference on Intelligence and Security Informatics, ISI 2015, Baltimore, Maryland, USA, 2015.
30. **Ambassador**, International Conference on Health Informatics and Technology, Valencia, Spain, 2015.

***Other research services:***

31. **Domain expert reviewer** for a PhD dissertation entitled “Usability Framework for Multimodal Mobile Assistance During Hajj”, UUM University, Malaysia, 2016.

## **RESEARCH GRANTS**

1. *Travel grant, Department of Information systems, UMBC.* Americas Conference on Information Systems (AMCIS), Chicago, USA, 2013.
2. *Travel grant, Graduate Student Association, UMBC.* Americas Conference on Information Systems (AMCIS), Chicago, USA, 2013.
3. *Travel grant, Department of Information systems, UMBC.* Health Informatics & Technology Conference. Baltimore, USA.
4. *Travel grant, Department of Information systems, UMBC.* The 5th Annual Workshop on Health Information and Economics (WHITE), Washington DC, USA, 2014.
5. *Travel grant, Graduate Student Association, UMBC.* Home Healthcare and Hospice Information Technology, Washington DC, USA, 2014.
6. *Research grant, Graduate Student Association, UMBC, USA, 2015.*
7. *Travel grant, Department of Information systems, UMBC.* The Midwest Association for Information Systems Conference, Pittsburg, Kansas, USA, 2015.
8. *Travel grant, Graduate Student Association, UMBC.* The Midwest Association for Information Systems Conference, Pittsburg, Kansas, USA, 2015.
9. *Student Scholarship, The Midwest United States Association for Information Systems, The Association for Information Systems, USA.*
10. *Summer Research Fellowship, The Graduate School, UMBC, USA.*

## **MASTER THESES SUPERVISED**

1. Enhancing the Deaf and Hard of Hearing People Experience in Using Social Network Websites in Jordan (as an Advisor). 1/2020
2. Hybrid Approach for Course Recommendation based on Deep Learning (as a co advisor). 5/2019
3. History-based Consistency Algorithm for the Trickle-Timer With Low-Power and Lossy Network (as examiner). 8/2019.
4. Detecting Depression in Twitter Arabic Users (as examiner). 11/2019
5. An Evaluation of Jordanian Universities Using Data Envelopment Analysis with Clustering and Classification Techniques (as examiner). 1/2019
6. Impact of using Apache Spark Partitioning Methods and Storage Interfaces on the Performance of Join Algorithms(as examiner). 4/2019
7. Automatic Segmentation and Detection System for Varicocele in Supine Position Using Ultrasound Images (as examiner). 1/2020

## **SENIOR GRADUATION PROJECTS SUPERVISED**

1. Diabetes Care Management System
2. E-Therapist
3. Housemaid Service Online System

4. AnswerMe: question answering expert system
5. Autism iHelp Food System
6. University Major Recommendation System
7. Fitfat app
8. Autism educational system
9. Personal Health Record
10. And many more

## **ACADEMIC SERVICES**

### ***Courses Taught:***

#### **A. At JUST university**

- Health Data Processing (master level)
- Introduction to health informatics (master level)
- Decision Support Systems and Intelligent Systems
- Business data communication and computer networks
- Modelling and simulation
- Security and privacy of healthcare information
- Communication skills
- Computer skills

#### **B. At Maryland University, USA**

- Introduction to information systems (Master level: Java and database)
- Introduction to computer and science (programming basics)
- Introduction to math and engineering (algebra)

### ***Curriculum Development:***

- Co-founder of the master degree program in health informatics just established in the CIS department. In fact, the program was one major outcome of the Heal+ EU project I was involved in. We have developed the study plan and curriculum of the program including courses, syllabi, contents, slides, learning objectives and other supporting materials. I was also involved in preparing the necessary documents to obtain a local accreditation of the program.
- Played a key role in developing the curriculum of the data science master program started in the CIS department last year. In particular, I was constructing the courses, syllabi, contents, learning objectives and other supplementary materials. In addition of being working on preparing necessary files to obtain the local accreditation of the program.
- Played a key role in radically updating but changing the curricula and study plan of the bachelor degree in CIS to accommodate the current trends in the field. Specifically, we have recently followed a career path approach to update the existing curricula where we added newly developed courses, removed existing ones or updated them as needed.



## **Committee Services:**

### **A. Faculty level**

1. Graduate studies committee (member), 2019
2. Research committee (member), 2019
3. Study plan committee(member), 2019
4. Redesign communication skills course committee (chair), 2019
5. Dean council member (member), 2019
6. Innovation committee (member), 2019.
7. ICICS conference committee (member), 2019.
8. Excuses committee (member), 2019
9. Health Informatics Master Program Co-founder (member), 2018.
10. ICICS conference committee (member), 2018.
11. Student affair committee (member), 2018.
12. Creativity and innovation committee (member), 2018.
13. Connecting with industry committee (member), 2018.
14. Innovative and programming lab committee (member), 2018.
15. Dean council member (member), 2017.
16. ICICS conference committee (member), 2018.
17. Student affair committee (member), 2017.
18. Creativity and innovation committee (member), 2017.
19. Connecting with industry committee (member), 2017.
20. Innovative and programming lab committee (member), 2017.
21. ICICS conference committee (member), 2016.

### **Department level**

22. Chairperson, CIS department
23. Graduate Studies Committee (chair), 2019
24. Research committee (member), 2019
25. ABET and QA committee (chair), 2019
26. Graduation project committee (chair), 2019.
27. ABET and QA committee (member), 2018.
28. Study plan committee (member), 2018.
29. Graduation project committee (chair), 2018.
30. Connecting with market committee (member), 2018.
31. Graduation project committee (chair), 2017.
32. ABET committee (member), 2017.
33. Quality Assurance committee (member), 2016.
34. ABET committee (member), 2016.
35. Curriculum committee (member), 2015.
36. ABET committee (member), 2015.
37. Strategic plan committee (member), 2015.

## **MEMBERSHIPS**

- Association of Information Systems AIS.

- American Medical Informatics Association AMIA.
- Association for Computing Machinery ACM.
- IEEE.

## **WORKSHOPS**

- Online Learning Design, Dec 9 2019- Dec 12 2019, Academic Development and Quality, JUST University.
- Quality of Online Courses- Applying the Quality Matters Rubric, Dec 17 2019- Dec 19 2019, Academic Development and Quality, JUST University.
- Hicure Developed Courses Evaluation Workshop & Case Studies Development Capacity Building Workshop 16 May -21 May 2017, face-to-face, Hosting Institution: Hochschule Niederrhein, Reinarzstrabe 49,
- Heal+ 3rd Project Meeting of HEAL+ 4 – 6 April 2017 Cairo, Egypt, 2017
- Hicure training for HI Courses implementation Workshop Aug -20 Aug 2017, face-to- face, Hosting Institution: JUST, Irbid, Jordan, 2017.
- Hicure Health Informatics Pathway Structures and Course Descriptions Workshop November -1 December 2016, hicure project, face-to-face, Hosting Institution: Atilim University, Turkey, 2016.
- Hicure kick-of meeting 12-14 Jan 2016, Amman, Jordan, 2016.
- Geographic Information Systems, AMCIS, Chicago, USA, 2013.
- Building Modern Apps for Modern Mobile Devices, Microsoft workshop, AMCIS, Chicago, 2013.
- Smarter Analytics, IBM workshop, AMCIS, Chicago, 2013.
- Big Data, IBM workshop, AMCIS, Chicago, 2013.
- Advanced Statistics for Researchers: Meta-analysis and Systematic Review, UMBC, Baltimore, 2013.

## **TECHNICAL SKILLS**

- Desktop programming (VB/VB.Net, C++, Java)
- Web programming (HTML, CSS design and ASP.NET)
- Database management: Oracle, SQL (designing, programming, and implementing)
- MATLAB
- Software analysis (data analyser and structure design)
- Tools (Tanagra data miner, WSN omnet++, spss, SmartPLS and Alpha)
- Hardware Maintenance: A+ certificate

## **LANGUAGES**

Arabic, English and French