



Mohammad Fraiwan



Professor (Top 2%)

+965-577-706-35 Teams/Zoom Nationality: USA mohammad.fraiwan@ku.edu.kw

ABOUT ME

Professor of Computer Engineering with over 17 years of experience applying artificial intelligence to solve interdisciplinary, real-world problems. My work focuses on developing computing solutions that improve quality of life and operational efficiency across areas such as medicine, public health, agriculture, veterinary medicine, social networks, and unmanned aerial vehicles.

I have led and contributed to multidisciplinary research teams, personally proposing and directing projects that secured over USD 300,000 in competitive funding. Several of these initiatives received regional and international recognition and were embedded into undergraduate research experiences and coursework, reinforcing a strong research-teaching nexus.

As Vice Dean for Research, I oversaw approximately USD 10M in internal and USD 15M in external research funding, while streamlining administrative and procurement processes. My responsibilities included proposal and final report review, project monitoring, risk assessment, compliance oversight, and KPI-driven policy review. I have also held key leadership roles on committees for accreditation, curriculum development, faculty workload, senior projects, and graduate studies.

EDUCATION

Ph.D. / Overlay Networks Monitoring

Iowa State University, Ames, IA, USA 2003-2008

Advised by Dr. Manimaran Govindarasu

B.Sc. / Computer Engineering

Jordan University of Science and Technology 1998-2003

GPA: 91.1%

Rank: 1st out of 130

Honors: Queen Rania Award for Academic Excellence, 2002. HRH Prince Hamza Award for Academic Excellence, 2003. President's Honor List, 5 times. Dean's Honor List, 12 times.

EXPERIENCE

Professor of Artificial Intelligence, (2026-current).

Department of Information Sciences, Kuwait University/ Kuwait

Vice Dean of Research

Jordan University of Science and Technology / Jordan / 2016-2018

- Oversaw the university's 10M USD of internal and 15M USD of external research funding.
- Setting key performance indicators for the deanship of research.
- Project progress monitoring and adherence to contracts financially and temporally.
- Updating and directing regulations toward higher quality journals and improved rankings.
- Conducting training workshops.

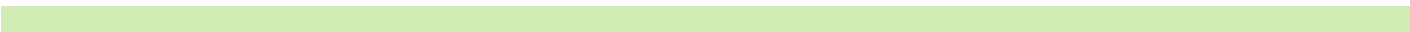
Professor of Computer Engineering, tenured (2021-2026).

Jordan University of Science and Technology/ Jordan/ 2009-2014, 2016-2021

- Multiple research projects and awards involving students.
- ABET accredited program from 2018 (ABET committee chair).
- Master thesis and undergraduate student graduation projects supervision.
- Teaching classes from all levels (12 credit hours per semester).
- University research committee (member, 2016-2018).
- University quality assurance committee (member, 2016-2018).
- University distance education and online teaching center.
- University committee for online web services (member and liaison, 2018-2019).
- College council (member, 2016-2017).
- Member of multiple committees at the department level (research, accreditation, and curriculum).
- Overseeing class scheduling, workload management, senior projects, and graduate studies.
- https://scholar.google.com/citations?user=_6RKCjkAAAAJ&hl=en
- <https://www.linkedin.com/in/mohammad-fraiwan-89732138/>

Senior Lecturer in Information Security

Abu Dhabi Polytechnic/ UAE/ 2014-2016

- Curriculum development of technical security-oriented courses.
 - UAE Ministry of Education committee for ICT curriculum.
 - Training for technical certificates in security and networks.
 - Teaching a multitude of information security-related courses.
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EXPERIENCE

Visiting Scientist

Iowa State University/ USA/ summers of 2009 and 2010

- Developing a Supervisory Control and Data Acquisition (SCADA) tested for evaluating the cyber security of power systems communication infrastructure. <http://powercyber.ece.iastate.edu/>
Research into overlay networks monitoring.

Akamai Technologies

Software Engineer-intern/ USA / 2008

- Developed a binary per-packet monitoring system of Akamai's customer's traffic. Included in the October 2008 release of the respective routing service and installed on a network of 95000 globally distributed servers (as of August 2011).
- Reduced throughput loss from the previous 30% to a less than 5% for the most aggressive logging level. Reduced log file size by about 20%.

Research Assistant

Iowa State University / USA / 2005-2007

- Testing and evaluation of the Architecture Technology Corporation (ATC) TCP-Tactical protocol stack over the PlanetLab tested. A subcontract from the United States Defense Advanced Research Projects Agency (DARPA).
- Developed a Real-Time System Visualization Tool (RSVTool) for the Network for Earthquake Engineering Simulation (NEES) MAST tested, using the Java programming language. Won the Best IT Innovation Award at the Network for Earthquake Engineering Simulation's (NEES) 6th Annual Meeting, 2008. See http://www-archive.ece.iastate.edu/no_cache/news/article/article/1832/1255.html

COMMUNITY ACTIVITIES

- Scientific editor PloS ONE, BMC Artificial Intelligence, BMC Digital Health.
- Conference co-Chair: HONET-ICT 2017 IEEE International conference on Smart Communities: Improving Quality of life using ICT, IoT, and AI.
- Technical program co-chair: The First international workshop on Software Defined Networks and Network Function Virtualization (SDN-NFV 2017).
- United Arab Emirates ministry of education committee on ICT curriculum development.
- Smart Mobile Security, UAE competition organizing committee.
- Reviewer for the following Journals and conferences: Cyberpsychology, Behavior, and Social Networking, Elsevier Multimedia Tools and Applications. IEEE Transactions of Smart Grid, IEEE Transactions on Education, Tylor and Francis Human Computer Interface, Sensors, IEEE Infocom, IEEE ICC, IEEE Globecom, IEEE IPCC, IFIP Networking, IEEE TPDS, Elsevier Computer

Communications, Elsevier Computer Networks, IEEE IPDPS, IEEE RTSS, IEEE Multidisciplinary Engineering Education Magazine, IEEE Student Conference on Research and Development, Journal of Engineering Science and Technology.

- Volunteer at the 2008 IEEE R4 International Conference on Electro/Information Technology.
- Volunteer for Habitat for Humanity, 2008.

R E S E A R C H G R A N T S

1. **M. Fraiwan**, using deep learning and object detection to locate K-complexes in EEG waveform images. 10000\$, JUST Deanship of Research, 4/2022- 9/2024.
2. **M. Fraiwan**, and B. Khasawneh, Detection and Classification of Pulmonary and Heart diseases using Artificial Intelligence. 15000\$, JUST Deanship of Research, 2/2021- 9/2022.
3. **M. Fraiwan**, and S. Abu Tarboush, "Development of Artificial Intelligence-Based Solutions for Veterinary Medicine Applications: A case study of predicting the need for surgery and survivability likelihood in horses presented with acute abdomen (Colic)", 5000\$, JUST Deanship of Research, 1/2019- 7/2020.
4. **M. Fraiwan**, "Development of Smartphone-and-Computer-Based Medical Applications", 11500\$, JUST Deanship of Research, 3/2018- 3/2019.
5. **M. Fraiwan**, and F. Almomani, "Studying the effect of computer games on the spine and eyes health in Jordanian", 7000\$, JUST Deanship of Research, 3/2020- ongoing.
6. **M. Fraiwan**, and F. Almomani, "Studying the effect of social networks and media influencers on social, educational, cognitive, and dietary habits in Jordan", 6500\$, JUST Deanship of Research, 1/2019- 7/2020.
7. **M. Fraiwan**, "Design of Arabic Speech and Text processing Algorithms; A Special Emphasis on Social Networks and Applications", 13000\$, JUST Deanship of Research, 8/2017-1/2019.
8. **M. Fraiwan** and B. Alduwairi, "Defense Analysis Against Store and Forward Distributed Reflective Denial of Service Attacks", JUST Deanship of Research, 6000\$, 8/2016 – 7/2017.
9. **M. Fraiwan** and O. Aljarrah, "Obstacle Avoidance in Autonomous Airborne Systems", King Abdullah Design and Development Bureau (KADDB) in association with King Abdullah II Fund for Development (KAFFD), 10000\$, January 2012-January 2013.
10. **M. Fraiwan**, Natheer Khasawneh, and O. Aljarrah, "Development of an Autonomous Airborne Robotic Campus Monitoring System", JUST Deanship of Research, 22000\$, 1/2012-6/2013.
11. M. Quwaider and **M. Fraiwan**, "Human Vital Signs Monitoring Using Wireless Body Area Networks" JUST Deanship of Research, 14,000\$, January 2012-June 2013.
12. Basheer Al-Duwairi, N. Khasawneh, and **M. Fraiwan**, "characterization and detection of SMS commanded-and-controlled mobile botnets", 4,000\$, January 2012-January 2013.
13. **M. Fraiwan** and N. Khasawneh, "Research and Development of Practical Applications for the Kinect Sensor Kit", JUST Deanship of Research. 14,500\$, April 2011- July 2012.
14. Iowa State University Student travel award to participate in IEEE Global Communications Conference (GLOBECOM), 2008, New Orleans, LA, USA. (paper accepted in conference).
15. Student travel award to participate in: (1) The Passive and Active Measurements Workshop (PAM), 2008, Cleveland, Ohio, USA. (2) USENIX Symposium on Networked Systems Design and Implementation (NSDI), 2005, Boston, MA, USA.
16. ECE Iowa State's Premium for Academic Excellence Award (PACE) for fall 2003.

PUBLICATIONS

Journal Publications

1. M Fraiwan, F Almomani, H Hammouri. Sociodemographic influences on Student Mental Health and their association with activation-regulating functional impairments Plos one 21 (3), e0342731
2. M Fraiwan, W Hananeh. Benchmarking binary classification of Johne's disease using a multi-resolution histopathological image dataset Cluster Computing 29 (1), 46
3. A Alawneh, M Fraiwan, F Almomani. Eye health in farmers: The impact of environmental and occupational factors PLoS One 20 (12), e0337944
4. M Fraiwan, F Almomani, H Hammouri. Metacognition and social cognition dysfunction symptoms in university students: Prevalence and correlation with demographic and personal factors International Journal of Educational Research Open 9, 100514
5. M Fraiwan, F Almomani. Internet Gaming Disorder: Prevalence and associated factors among university students Acta Psychologica 260, 105690
6. M Fraiwan, A Ibnian, NS Haider. A dataset of heart sound regurgitation of patients with heart valve disorders Data in Brief, 112081
7. W Hananeh, M Fraiwan. A histopathology image dataset for Johne's disease detection and research, Data in Brief, 111975
8. M Fraiwan, F Almomani, H Hammouri. Prevalence and contributing factors of executive cognitive dysfunction symptoms in university students, Plos one 20 (6), e0323783
9. Fraiwan, M. Efficient Convolutional Neural Network Model for the Taxonomy and Sex Identification of Three Phlebotomine Sandfly Species (Diptera: Psychodidae, Phlebotominae). Animals (2025). (Q1, 93%)
10. Fraiwan, M., Mukbel, R., Kanaan, D.: A dataset of sandfly (*Phlebotomus papatasi*, *Phlebotomus alexandri*, and *Phlebotomus sergenti*) genital and pharyngeal images. Data in Brief, Volume 57, 2024, 111031, <https://doi.org/10.1016/j.dib.2024.111031>.
11. Fraiwan M. Detection and location of EEG events using deep learning visual inspection, PLoS ONE. <https://doi.org/10.1371/journal.pone.0312763>
12. Fraiwan, M., Mukbel, R., Kanaan, D.: Using Deep Learning Artificial Intelligence for Sex Identification and Taxonomy of Sand Fly Species. PLOS ONE 20(4): e0320224. <https://doi.org/10.1371/journal.pone.0320224>
13. **Fraiwan, M.**, Khasawneh, N. Visual identification of sleep spindles in EEG waveform images using deep learning object detection (YOLOv4 vs YOLOX). Cluster Comput (2024). <https://doi.org/10.1007/s10586-024-04630-0> (Q1, IF:3.3)

14. **Fraiwan M**, Audat Z, Fraiwan L, Manasreh T (2022) Using deep transfer learning to detect scoliosis and spondylolisthesis from x-ray images. PLoS ONE 17(5): e0267851. <https://doi.org/10.1371/journal.pone.0267851> (Q1, IF:3.24)
15. **Fraiwan, M.**, Al-Kofahi, N., Ibnian, A. et al. Detection of developmental dysplasia of the hip in X-ray images using deep transfer learning. BMC Med Inform Decis Mak 22, 216 (2022). <https://doi.org/10.1186/s12911-022-01957-9> (Q1, IF:3.298)
16. **Fraiwan, M.**; Faouri, E. On the Automatic Detection and Classification of Skin Cancer Using Deep Transfer Learning. Sensors 2022, 22, 4963. <https://doi.org/10.3390/s22134963> (Q1, IF:3.576)
17. Khasawneh, N., **Fraiwan, M.**, Fraiwan, L. Detection of K-complexes in EEG Waveform Images Using Faster R-CNN and Deep Transfer Learning, BMC Medical Computing and Informatics. (Q1, IF: 2.796)
18. Mohammad Fraiwan, Natheer Khasawneh, Basheer Khassawneh, Ali Ibnian, A dataset of COVID-19 x-ray chest images, Data in Brief, Volume 47, 2023, 109000, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2023.109000>. (Q2: IF =1)
19. Khasawneh, N., **Fraiwan, M.** & Fraiwan, L. Detection of K-complexes in EEG signals using deep transfer learning and YOLOv3. Cluster Comput (2022). <https://doi.org/10.1007/s10586-022-03802-0> (Q1, IF: 1.809)
20. Khasawneh, N., **Fraiwan, M.**, Fraiwan, L., Khassawneh, B., Ibnian. A. Detection of covid-19 from chest x-ray images using deep convolutional neural networks. Sensors, 2021, 21(17), 5940. (Q1, IF:3.57)
21. **Fraiwan, M.**, Fraiwan, L., Alkhodari, M. et al. Recognition of pulmonary diseases from lung sounds using convolutional neural networks and long short-term memory. J Ambient Intell Human Comput (2021). <https://doi.org/10.1007/s12652-021-03184-y> (Q1, IF: 7.1)
22. **Mohammad Fraiwan**, Luay Fraiwan, Basheer Khassawneh, Ali Ibnian, A dataset of lung sounds recorded from the chest wall using an electronic stethoscope, Elsevier Data in Brief, Volume 35, 2021, 106913, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2021.106913>. (Q2)
23. L.Fraiwan, O. Hassanin, **M. Fraiwan**, Bsheer Khassawneh, A. Ibnian, & M. Alkhodarib, Automatic identification of respiratory diseases from stethoscopic lung sound signals using ensemble classifiers, Elsevier Biocybernetics and Biomedical Engineering. (Q1, IF: 2.537)

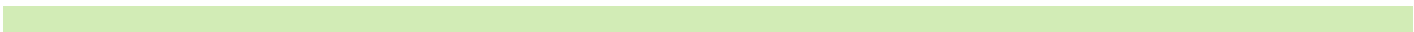
24. Fraiwan, M.; Faouri, E.; Khasawneh, N. Classification of Corn Diseases from Leaf Images Using Deep Transfer Learning. *Plants* 2022, 11, 2668. <https://doi.org/10.3390/plants11202668> (Q1, IF:4.65)
25. Fraiwan, M.; Faouri, E.; Khasawneh, N. Multiclass Classification of Grape Diseases Using Deep Artificial Intelligence. *Agriculture* 2022, 12, 1542. <https://doi.org/10.3390/agriculture12101542> (Q2, IF:3.408)
26. Alshboul, S., **Fraiwan, M.** Determination of chewing count from video recordings using discrete wavelet decomposition and low pass filtration, *Sensors special issue on Computer Aided Diagnosis Sensors*. 2021, 21, 6806. (Q1, IF:3.57)
27. **Fraiwan, M.** Introducing a Capstone Course on Social Networks, *Int. J. of Continuing Engineering Education and Life-Long Learning*, accepted for publication.
28. **Fraiwan, M.**, Almomani, F. & Hammouri, H. Body mass index and potential correlates among elementary school children in Jordan. *Springer Eat Weight Disord* (2020). <https://doi.org/10.1007/s40519-020-00899-3>. (Q1, IF: 4.65)
29. **Mohammad Fraiwan**, Identification of markers and artificial intelligence-based classification of radical twitter data, *Elsevier Applied Computing and Informatics*, 2020, <https://doi.org/10.1108/ACI-12-2021-0326>. (Q1)
30. **Fraiwan, M. A.**, & Abutarbush, S. M. (2020). Using Artificial Intelligence to Predict Survivability Likelihood and Need for Surgery in Horses Presented With Acute Abdomen (Colic). *Elsevier Journal of Equine Veterinary Science*, 90, 102973. <https://doi.org/10.1016/j.jevs.2020.102973>. (Q2, IF: 1.6)
31. Alafeef, M., **Fraiwan, M.** Smartphone-based respiratory rate estimation using photoplethysmographic imaging and discrete wavelet transform. *Springer J Ambient Intell Human Comput* 11, 693–703 (2020). <https://doi.org/10.1007/s12652-019-01339-6>. (Q1, IF: 7.1)
32. Alafeef, M., **Fraiwan, M.** On the diagnosis of idiopathic Parkinson's disease using continuous wavelet transform complex plot. *Springer J Ambient Intell Human Comput* 10, 2805–2815 (2019). (Q1, IF: 7.1)
33. Alafeef, M., **Fraiwan, M.**, Alkhalaf, H. et al. Shannon entropy and fuzzy C-means weighting for AI-based diagnosis of vertebral column diseases. *Springer J Ambient Intell Human Comput* (2019). <https://doi.org/10.1007/s12652-019-01312-3>. (Q1, IF: 7.1)
34. **Fraiwan, M.**; Faouri, E.; Khasawneh, N. On Using Deep Artificial Intelligence to Automatically Detect Apple Diseases from Leaf Images. *Sustainability* 2022, 14, 10322. <https://doi.org/10.3390/su141610322> (Q1, IF:3.251)
35. Khasawneh, N.; Faouri, E.; **Fraiwan, M.** Automatic Detection of Tomato Diseases Using Deep Transfer Learning. *Appl. Sci.* 2022, 12, 8467. <https://doi.org/10.3390/app12178467> (Q2, IF:2.679)

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36. **Fraiwan, M.**, Alafeef, M. Gauging human visual interest using multiscale entropy of EEG signals. Springer J Ambient Intell Human Comput, 12, 2435–2447 (2021). <https://doi.org/10.1007/s12652-020-02381-5>. (Q1, IF: 7.1)
 37. **Mohammad Fraiwan**, Natheer Khasawneh, Basheer Khasawneh, Ali Ibnian, A dataset of COVID-19 x-ray chest images, Data in Brief, Volume 47, 2023, 109000, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2023.109000>. (Q2)
 38. **Fraiwan, M.**, Alafeef M. Multiclass epilepsy classification using wavelet decomposition, direct quadrature, and Shannon entropy. Journal of Engineering Science and Technology. (Q2)
 39. **Fraiwan, M.**, Alsaleem, A., Abandeh, H., & Aljarrah, O. (2018). A system for application development using aerial robots. International Journal of Embedded Systems, 10(6), 494.
 40. **Mohammad Fraiwan**, Natheer Khasawneh, Hosam Ershedat, Hamza Al-Kofahi, and Ibrahim Al-Alali. A Kinect-based system for Arabic sign language to speech translation. IJCAT 52(2):117-126, January 2015. DOI: 10.1504/IJCAT.2015.071972
 41. **Mohammad Fraiwan**, Manimaran Govindarasu. "Empowering PlanetLab: A Method for TCP Evaluation Over the Planetary-scale Testbed", Journal of Networks, Vol. 8, No. 2 (2013), 307-316, Feb 2013 doi:10.4304/jnw.8.2.307-316.
 42. **Mohammad Fraiwan**, Rami Al-Salman, Natheer Khasawneh, and Stefan Conrad. "Analysis and Identification of Malicious JavaScript Code", Information Security Journal: A Global Perspective, Vol. 21, No.1 (2012), 1-11 doi 10.1080/19393555.2011.624160.
 43. Luay Fraiwan, Khaldon Lweesy, Natheer Khasawneh, **Mohammad Fraiwan**, Heinrich Wenz, Hartmut Dickhaus: Time Frequency Analysis for Automated Sleep Stage Identification in Fullterm and Preterm Neonates. J. Medical Systems 35(4): 693-702 (2011).
 44. Khasawneh N., Al-Khudair M., **Fraiwan M.**, "On using classification techniques for corpus reduction in Arabic text-to-speech systems," Int J Comp App, Vol. 33, No. 4, 2011.
 45. Fraiwan L., Lweesy K., Khasawneh N., **Fraiwan M.**, Wenz H., and Dickhaus H., "Classification of sleep stages using multi-wavelet time frequency entropy and LDA," Methods of Information in Medicine, Vol. 49, No. 3: 230-237, 2010.
 46. **Mohammad Fraiwan**, G. Manimaran: Scheduling algorithms for conducting conflict-free measurements in overlay networks. Elsevier Computer Networks 52(15): 2819-2830 (2008).
 47. **Mohammad Fraiwan**, G. Manimaran: Link stress reduction in topology-aware overlay path monitoring. Elsevier Computer Communications 31(10): 2086-2093 (2008).
 48. Sri Sritharan, G. Manimaran, Jian Zhao, and **M. Fraiwan**. A Real-Time System Visualization Tool (RSVtool) for NEES-MAST to Facilitate Collaboration. Invited article, NEES Cyber Infrastructure Center (NEESit).
 49. O. Al-Jarrah, S. Al-Kiswany, B. Gharaibeh, **M. Fraiwan**, and H. Khasawneh . A New Algorithm for Arabic Optical Character Recognition. WSEAS Transactions on Information Science and Applications, Issue 4, Volume 3, April 2006. ISSN: 1790-0832, pages 832-845.
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Conference Publications (peer-reviewed full papers)

1. Natheer Khasawneh, Christoph Schulte, **Mohammad Fraiwan**, "A Framework for Crowd-Sourced Exercise Data Collection and Processing," Proceedings of the 2020 11th International Conference on Information and Communication Systems (ICICS).
 2. **M Fraiwan**, Fidaa Al-Quran, Basheer Al-Duwairi, "Defense Analysis Against Store and Forward Distributed Reflective Denial of Service Attacks," Proceedings of the 2018 International Conference on Innovations in Information Technology (IIT).
 3. Ali Shatnawi, **Mohammad Fraiwan**, Hadi S Al-Qahtani, "Exam scheduling: A case study," Proceedings of the 2017 Ninth International Conference on Advanced Computational Intelligence (ICACI).
 4. **Mohammad Fraiwan**, Bayan Al-Younes, Omar Al-Jarrah, Natheer Khasawneh, "Analysis and classification of Arabic crowd-sourced news reports: A case study of the Syrian crisis," Proceedings of the 2016 12th International Conference on Innovations in Information Technology (IIT).
 5. **Mohammad Fraiwan**, Ahmad Alsaleem, Hashem Abandeh, Omar Aljarrah, "Obstacle avoidance and navigation in robotic systems: A land and aerial robots study," Proceedings of the 2014 5th International Conference on Information and Communication Systems (ICICS).
 6. R. AlSalman, **M. Fraiwan**, M. Chipofya, F. Dylla, F. Schmid, H. Ershedat, "ASET: An Intuitive Data Acquisition-Sketching Tool for Disaster Management Systems," Proceedings of 16th AGILE Conference on Geographic Information Science, 14-17 May 2013, Leuven, Belgium.
 7. **M. Fraiwan**, N. Khasawneh, A. Malkawi, M. Al-Jarrah, R. Alsa'di, and S. Al-Momani, "Therapy Central: On the Development of Computer Games for Physiotherapy," Proc. 9th International Conference on Innovations in Information Technology March 17-19, 2013.
 8. **M. Fraiwan**, N. Khasawneh, "The Rise of Cyber-Physical Systems: A Security Perspective," SecureAbuDhabi Conference 2013, March, 2013. Abu Dhabi, UAE.
 9. B. Al-Duwairi, N. Khasawneh, H. Theiabat, and **M. Fraiwan**, "A Prototype of a Centralized Smartphone Botnet for Private Information Collection," SecureAbuDhabi Conference 2013, March, 2013. Abu Dhabi, UAE.
 10. Al-Salman R., **Fraiwan M.**, Khasawneh N., "Protecting AJAX code using secure communication," International Conference on Information & Communication Systems (ICICS 2011).
 11. Ershaed H., Al-Alali I., Kofahi H., Khasawneh N., **Fraiwan M.**, "An Arabic Sign Language Computer Interface Using the Xbox Kinect," Third Annual Undergraduate Research Conference on Applied Computing (URC 2011).
 12. Alsa'di R., Al-Momani S., **Fraiwan M.**, Khasawneh N., "Physiotherapy Assistance Using the Xbox Kinect," Third Annual Undergraduate Research Conference on Applied Computing (URC 2011).
(**Best Paper Award**)
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13. Khasawneh N., Shatnawi M., **Fraiwan M.**, "Converting Web Applications Into Standard XML Web Services: Two Case Studies," The Tenth International Conference on Intelligent System Design and Applications (ISDA 2010), Cairo, Egypt, Nov. 29- Dec. 1, 2010.
14. Khasawneh N., **Fraiwan M.**, Al Jarrah O., "Establishing the Assessment Plan for the Undergraduate Program at the Department of Computer Engineering in Jordan University of Science and Technology," The 2nd Regional Conference on Program and Learning Assessment in Higher Education, Beirut, Lebanon, Oct. 29-30, 2010.
15. **Mohammad Fraiwan**, G. Manimaran: Localization of IP Links Faults Using Overlay Measurements. IEEE ICC 2008: 5629-5633. Acceptance rate: 35.2%.
16. **Mohammad Fraiwan**, G. Manimaran: On the Design of Overlay Networks for IP Links Fault Verification. IEEE GLOBECOM 2008: 2437-2441. Acceptance rate: 36.8%.
17. **Mohammad Fraiwan**, G. Manimaran: On the Schedulability of Measurement Conflict in Overlay Networks. IFIP Networking 2007: 1120-1131. Acceptance rate: 22% (full papers)



TEACHING EXPERIENCE

Jordan University of Science and Technology

- Artificial Intelligence, Information security, Network security, Software Project Management, Software Design and Development, Algorithms, Programming Languages, Computer Interfacing, Operating Systems, Logic Design, Computer Architecture, Microprocessor Systems, Network Analysis and Optimization, Image processing, Cloud Computing, Social Networks, Computer Organization & Design, Scripting Languages (Python), Special Topics, and Senior Design I & II.

Abu Dhabi Polytechnic

- Information security, Cloud Computing Security, Wireless Networks Security, Routing and Switching, Network Security Logic Design, Operating Systems Security.

STUDENT AWARDS / SUPERVISION

- **First place**, 2nd University Robotics Competition, Jordan 2013 (65 teams, 13 universities), for research on Obstacle Avoidance in Autonomous Airborne Systems.
- **First place**, 2011 NYUAD International Hackathon for the Social Good in the Arab World, for research on using serious gaming in physiotherapy of Cerebral Palsy patients.
- **Best student poster award**, Undergraduate Research Conference URC 2011, Dubai, UAE.
- **Third place**, 2011 Microsoft Imagine Cup regional qualifiers, for research on using the Xbox Kinect in developing an Arabic sign language to speech system.