

HANADY M ABDULSALAM

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CURRENT POSITION

- Associate Professor at the Department of Information Sciences, Kuwait University, Kuwait
- Acting Chairman of the Department of Information Sciences, Kuwait University, Kuwait

LANGUAGES

- Fluent in Arabic and English

EDUCATION

2004 - 2008 *School of Computing at Queen's University - Kingston, Canada*
Doctoral of Philosophy – Computing and Information Science

- Supervisors: Prof. David Skillicorn and Prof. Patrick Martin, School of Computing, Queen's University.
- Member of the Database lab at the School of Computing
- Worked on data-mining, particularly, random-forests
- Thesis title: Streaming Random Forests

2000 - 2002 *Dept. of Computer Engineering at Kuwait University - Kuwait*
Master of Science - Computer Engineering

- Conducted research on memory management and operating systems

1996 - 2000 *Dept. of Computer Engineering at Kuwait University - Kuwait*
Bachelor of Science - Computer Engineering

- Took courses from a wide-range of topics, including software engineering, databases, web-programming, algorithms, data-structures, networks, and programming languages

EMPLOYMENT

Acting Chairman

June 2019 - present

Dept. of Information Sciences - College of Life Science, Kuwait University

- Overall management of the work plan and activities of department of Information Science including academic and administrative plans

Associate Professor

April 2019 - present

Dept. of Information Sciences - College of Life Science, Kuwait University

Assistant Professor

Aug. 2008 – April 2019

Dept. of Information Sciences, Kuwait University

- Teaching computing and mathematics courses for both bachelor and master degree students.
- Conducting research on different areas including data-mining, data management, sensor networks, cloud computing, trust based systems, and software engineering.
- Participating in administrative committees at the level of the department, college and university.
- Aiding in the organization of events, workshops, exhibitions and conferences at the university.

Chairman

Sep. 2013 – Sep. 2014

Office of Student Advising – College of Computing Sciences and Engineering, Kuwait University

- Overall management of the work plan and activities of the Office of the advising and students affairs

Chairman

Sep. 2011 – Sep. 2012

Office of Consultation and Training - College of Life Sciences, Kuwait University

- Overall management of the work plan and activities of the Office of the Consultations and Training at College for Women – Kuwait University
- Office duties are to offer Consultation and Training Services for the Community on both personal and organization levels

Teaching Assistant

Sep. 2000 – Aug. 2004

Dept. of Computer Engineering – College of Engineering and Petroleum,
Kuwait University

- Graded assignments and exams for various computer engineering courses
- Taught labs for the following course: Database Systems, Java programming, C/C++ programming, and Operating Systems.
- Prepared an Oracle developer learning lab material for database systems.
- Managed an Oracle system (server and clients) for education purpose.
- Prepared and supervised an Oracle developer exam for new employees applying at the department

PUBLICATIONS

Journals papers:

- **H. M. Abdulsalam**, B. A. Ali, and E. AlRoumi, Usage of Mobile Elements in Internet of Things Environment for Data Aggregation in Wireless Sensor Networks. *Computers and Electrical Engineering*. Elsevier publishing. Vol 72, pp 789-807, November 2018.
- B. A. Ali, **H. M. Abdulsalam**, and A. AlGhemlas, Trust Based Scheme for IoT enabled Wireless Sensor Networks, *Wireless Personal Communications*. Springer publishing. Vol 99, Issue 2, pp 1061-1080, March 2018.
- N. AlDabous, **H. M. Abdulsalam**, and J. AlDallal, Assessment of Non-Functional Properties for E-services. *Journal of Engineering Research*. Kuwait University. Vol 6 Issue 4, pp 76-97, December 2018.
- M. Zayoud, **H. M Abdulsalam**, A Al-Yatama, S. Kadry, Split and Merge LEACH Based Routing Algorithm for Wireless Sensor Networks. *International Journal of Communication Networks and Information Security*. Vol 10, No 1, 2018.
- **H. M. Abdulsalam**, B. A. Ali, and A. AlYatama, Air Quality Monitoring Using a LEACH-based Data Aggregation Technique in Wireless Sensor Network. *Journal of Ad Hoc & Sensor Wireless Networks*. Old city Publishing. Vol. 32 Issue 3/4, p275-300. 26p. 2016.
- M. Hussain and **H. M. Abdulsalam**. Software Quality in the Clouds: A Cloud-based Solution. *Journal of Cluster Computing*. Springer publishing. June 2014, Volume 17, Issue 2, pp 389–402.
- **H. M. Abdulsalam** and B. Ali, W-LEACH Based Dynamic Adaptive Data Aggregation Algorithm for Wireless Sensor Networks. *International Journal of Distributed Sensor Networks*. Hindawi Publishing Corporation. Vol. 2013, Article ID 289527, 11 pages, 2013.

- **H. M. Abdulsalam**, D.B. Skillicorn, and P. Martin. Classification Using Streaming Random Forests, *IEEE Transactions on Knowledge & Data Engineering (TKDE)*, IEEE Computer Society. January 2011, volume 23, issue 1, pp. 22 – 36

Conferences and Workshops papers and posters:

- E. AlRoumi, **H. M. Abdulsalam**, and B. Ali, A Technique for Data Aggregation in WSN Using IoT Mobile Elements, (poster in) *Kuwait University Scientific Poster Day, Kuwait University, Kuwait (March 2016)*
- E. AlRoumi, **H. M. Abdulsalam**, B. A. Ali, and A. AlYatama, A Framework for Data Aggregation in WSN using IoT Mobile Elements, (poster in) the *First Kuwait International Conference on Computing Sciences and Engineering, Kuwait University, Kuwait (2015)*.
- A. AlGhemlas, B. A. Ali, and **H. M. Abdulsalam**, A Trust Management System for IoT enabled WSN, (poster in) the *First Kuwait International Conference on Computing Sciences and Engineering, Kuwait University, Kuwait (2015)*.
- **H. M. Abdulsalam**, B. A. Ali, and E. AlRoumi. Deploying a LEACH Data Aggregation Technique for Air Quality Monitoring in Wireless Sensor Network, in *Proc. of the 2nd International Workshop on Communications and Sensor Networks (ComSense-2014), Niagara Falls, Canada (2014)*.
- E. AlRoumi, **H. M. Abdulsalam**, B. A. Ali, A. AlYatama, AQM-LEACH: Air Quality Monitoring LEACH-Based Data Aggregation Technique In Wireless Sensor Network, (poster in) the *First Kuwait International Conference on Life Sciences, Kuwait University, Kuwait (2014)*.
- **H. M. Abdulsalam**, W-LEACH: Weighted Low Energy Adaptive Clustering Hierarchy Algorithm, (poster in) *Ontario Celebration of Women In Computing ONCWIC*. London, Ontario, Canada (2012).
- **H. M. Abdulsalam** and L. Kamel. Data Aggregation for Evolving Wireless Sensor Networks Using W-LEACH, in *Proc. of the Second Kuwait Conference on e-Services and e-Systems (KCESS)*. Kuwait (2011).
- M. Hussain and **H. M. Abdulsalam**. SECaaS: Security as a Service for Cloud-based Applications, in *Proc. of the Second Kuwait Conference on e-Services and e-Systems (KCESS)*. Kuwait (2011).
- **H. M. Abdulsalam** and L. Kamel, W-LEACH: Weighted Low Energy Adaptive Clustering Hierarchy Aggregation Algorithm for Data Streams in Wireless Sensor Networks in *Proc. Of the IEEE International Conference on Data Mining Workshops (ICDM)*, Sydney, Australia (2010), pp 1 – 8.

- L. Karim, N. Nasser, **H. M. Abdulsalam**, and I. Moukadem, An Efficient Data Aggregation Approach for Large Scale Wireless Sensor Networks, in *Proc. of the IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM)*, Miami, USA (2010), pp1-6.
- **H. M. Abdulsalam**, Data Aggregation for Wireless Sensor Networks, (poster in) *the Third Scientific Poster Day at the College of Science, Kuwait University*, Kuwait (2010)
- A. Muqaddas, **H. M. Abdulsalam**, and A. Salman. S-LOOK: A Preemptive Disk Scheduling Algorithm for Offline and Online Environments, in *Proc. of the fourth International Scientific and Technical Conference*, Lviv, Ukraine (2009), pp. 116 – 120
- **H. M. Abdulsalam**, D.B. Skillicorn, and P. Martin. Classifying Evolving Data-Streams using Dynamic Streaming Random Forests, in *Proc. of the 19th International conference on Database and Expert Systems Applications (DEXA)*, Turin, Italy (2008), Springer-Verlag, pp. 643-651
- **H. M. Abdulsalam**, D.B. Skillicorn, and P. Martin. Random Forests for Streaming Data, (poster in) *the UW and IEEE Kitchener-Waterloo Section Joint Workshop on Multimedia Mining and Knowledge Discovery*, Waterloo, Canada (2007)
- **H. M. Abdulsalam**, D.B. Skillicorn, and P. Martin. Streaming Random Forests, in *Proc. of the 11th International Database Engineering and Applications Symposium (IDEAS)*, Banff, Canada (2007), IEEE Computer Society, pp. 225-232

Thesis and book chapters:

- **H. M. Abdulsalam**. *Streaming Random-Forests*, Ph.D. thesis (2008). School of Computing, Queen's University, Kingston, Canada
- **H. M. Abdulsalam**, D.B. Skillicorn, and P. Martin. Mining Data-Streams, in *P. Poncelet, F. Masseglia, and M. Tessiere, editors, Success and New Directions in Data Mining* (2007). Idea Group Inc. (IGI), pp. 302 – 324

TEACHING

- Teaching experience in the following undergraduate courses:
 - Introduction to Information Systems
 - Fundamentals of Personal Computing
 - College Algebra
 - Database Systems
 - Programming and Problem Solving
 - Object Oriented Paradigm
 - Data Structures in Java
 - Applications of Information Systems in the field of Food Science
 - Web Programming
 - Internship
 - Capstone Project
 - Portfolio Review

- Teaching experience in the following graduate courses:
 - Data Management, Mining, and Warehousing
 - Research Methodology
 - Data Mining and Information Retrieval

- Course coordination for the following courses:
 - Introduction to Information Systems
 - Fundamentals of Personal Computing
 - Database Systems
 - Programming and Problem Solving in Java
 - Internship
 - Capstone Project
 - Portfolio Review

- Involved in preparing unified forms for the course contracts for the following course:
 - Database systems
 - Programming and Problem Solving
 - Introduction to Information Systems

- Acted as a student advisor for academic years 2009/2010 and 2010/2011.

- Acted as a portfolio advisor for academic year 2009/2010.

- Involved in preparing required documents for accreditation purpose by ABET for the Information Science program.
- Involved in proposing modifications of the curriculum of the Information Science program.
- Involved in defining course learning outcomes for the following courses:
 - Database systems
 - Programming and Problem Solving
- Heavily involved in preparing the course schedule for courses of the Department of Information Science. (2009/2010 to 2011/2012, and 2013/2014 to present).
- Supervised several capstone students project summarized as follows:
 - e-Rug system for Islamic prayer teaching
 - Deaf and Dump Translator
 - Smart Refrigerator
 - An automatic parking collector system using RFID technology
 - Students Attendance System
 - Diet System
 - Students Material Exchange System
 - Online Course Assessment File System
 - Car Parking System
 - Online Job Hunting System
 - Electronic Map online warehouse
 - Traffic Safety System
 - Student Services Website
 - Water and electricity rationing system
 - Personal pocket mobile app

SELF IMPROVEMENT

Attended the following Lectures/Workshops:

- Recharge hour to improve teaching skills by the Teaching Excellence Program at the Office of the Vice President of Academic Affairs. Nov 2019
- Two days workshop on Promising Practices for Improving the Inclusion of Women in Science, Engineering, and Medicine: Lessons from Kuwait and the United States, at the National Academies of Science, Engineering, and Medicine (NASEM), Washington D C - USA, Oct 2019.
- Public release of a new report on the Science of Effective Mentorship in STEMM by the Board of Higher Education and Workforce (BHEW) of the National Academies for Science (NAS), Washington D C - USA, Oct 2019.
- One-day workshop on Integrity in higher education organized by Kuwait Anti Corruption Authority “Nazaha” in cooperation with the UNESCO International Institute for Educational Planning. Oct2019.
- A seminar on Research-Based Learning by the Teaching Excellence Program at the Office of the Vice President of Academic Affairs. March 2019

- Two days Blackboard Learn essentials workshop by Distance Learning center, Kuwait University. Dec 2017.
- One-day workshop on Unified Search & Remote Access, Dec 2017.
- One-day faculty workshop on Entrepreneurial Education. Kuwait University, in collaboration with Kuwait Foundation for the Advancement of Sciences (KFAS). Apr 2016.
- Training course on Post Graduate Career by the AAIM International for Training and Development. 2010.
- Two days teaching excellence workshop by Vice President of Research, Kuwait University. 2009.
- Other different lectures and seminars on research and teaching at Kuwait Foundation for the Advancement of Sciences (KFAS) and Kuwait University.

ADMINISTRATION

Member/Coordinator of the following committees:

- Kuwait University Automated Services Project Steering Committee
- College Library Committee
- College Annual Report Committee
- College Council
- College Course Scheduling Committee
- College Student Advising Meeting Organization Committee
- College Capstone Projects Evaluation Committee for Gulf Competition of Students' Capstone Projects
- College Scholarship Committee
- College Teaching Assistant Appointment Committee
- Department Council
- Department Promotion Committee
- Department Scientific Affairs Committee
- Department Scholarship Committee
- Department Student Portfolio Committee
- Department Course Scheduling Committee
- Department Student Advising Committee
- Department Student Affairs Committee
- Department Social and Public Seminars Committee
- Department Library Committee
- Department Appointment and Contract Renewal Committee
- Department Library, Lab Facilities, Budget and Planning Committee

Acting dean:

Served as an acting dean for the College of Life Science during the following period:

- 23rd to 26th, October 2019

Acting chairman:

Served as an acting department chairman for the Department of Information Science during the following periods:

- 22th to 26th, May 2016
- 18th to 21th, April 2016
- 19th to 23th, April 2015
- 27th to 30th, November 2014
- 10th to 14th, April 2014
- 23th to 26th, March 2014
- 6th to 10th, November 2013
- 8th to 10th, October 2013
- 18th to 23th, February 2011

CONFERENCES/EXHIBITIONS ORGANIZATION

- Reviewed research papers for reputable journals and transactions including: IEEE Transaction of Knowledge and Data Engineering (TKDE), Journal of Software (JSW), and The Computational Intelligence Journal (CI).
- Member of the Organizing Committee at the Second International Conference on Computing Sciences and Engineering Kuwait 2018.
- Member of the Organizing Committee and the Poster Organization Committee at the First International Conference on Computing Sciences and Engineering Kuwait 2015.
- Member of the International Technical Program Committee of the 2nd International Workshop on Machine Learning and Data Mining for Sensor Networks (MLDM-SN), London, UK 2015.
- Member of the Organizing Committee and the Poster Organization Committee at the First Kuwait International Conference on Life Sciences, Kuwait 2014.
- Chair of the Local Arrangements Committee and the Publicity Committee at Kuwait Second Conference on e-Services and e-Systems (KCESS), Kuwait 2011.
- Member of the Organizing Committee and the Tutorials Committee at Kuwait Second Conference on e-Services and e-Systems (KCESS), Kuwait 2011.
- Core organizer of the First and the Second Exhibition of Capstone Projects for College for Women, academic year 2010/2011.
- Chair of the Local Arrangements Committee at the International Conference on Information Science, Technology, and Applications (ISTA), Kuwait 2001.
- Member of the Organizing Committee, Publicity and Web Committee, Finance and Fund Raising Committee, and Registration Committee at the International Conference on Information Science, Technology, and Applications (ISTA), Kuwait 2009.

GRANTS AND RESEARCH PROJECTS

- A member of the collaborative research project between Kuwait University, the European Organization for Nuclear Research CERN, and the Kuwait Foundation for the Advancement of Sciences KFAS. On progress. 2019.
- P-Investigator of a funded research project “Data Aggregation Technique for Air Pollution Application of Wireless Sensor Networks”. January 2013 – May 2014.
- Co-Investigator of a funded research project “Design and Analysis of Novel Arithmetic Structures/Algorithms for Cryptographic Applications”. September 2011 – January 2015.
- Member of a research project “Similarity Group-by on Categorical Data Using Summaries and Tree Structures” at University of Toronto. September 2012 – September 2014.
- Member of a research project “Crowdsourcing and Gamification for Entity Resolution” at the University of Toronto. September 2012 – September 2014.
- Received a Research Initiation grant from the Department of Research Administration at Kuwait University as being the Primary Investigator of a research project “Data Aggregation for Wireless Sensor Networks”, April 2010 – March 2011

GRADUATE STUDENTS SUPERVISION

- Supervisor for a Master thesis entitled “Using fog computing in improving data mining as a service in clouds” by Roqaya AlRashdan; a MSCIS student at the Department of Information Science – Kuwait University, ongoing.
- Supervisor for a Master thesis entitled “The effect of social media usage on language learning” by Fatma Dashti; a MSIT student at the Department of Information Science – Kuwait University, ongoing.
- Supervisor for a Master Project entitled “Fog computing-based E-learning systems” by Gadir AlKandari; a MSIT student at the Department of Information Science – Kuwait University, May 2019.
- Supervisor for a Master Project entitled “E-Learning for Physically Disabled Students” by Abrar Alawadhi; a MSIT student at the Department of Information Science – Kuwait University, May 2019.
- Supervisor for a Master Project entitled “The Impact of Social Media on Kuwaiti Family Life” by Shaima AlQattan; a MSIT student at the Department of Information Science – Kuwait University, Kuwait. 2016.

- Co-Supervisor for a Master thesis entitled “Split and Merge Based Routing Algorithm For Wireless Sensor Networks”, by Maha Zayood; a MSc student at the Department of Computer Engineering – Kuwait University, August 2012.

ACHIEVEMENTS AND AWARDS

- Received an award from the Department of Research Administration at Kuwait University for publishing in the Transaction of Knowledge and Data Engineering (TKDE), as being one of the top 25% journals in its field, May 2011.
- Received a full scholarship for my PhD from Kuwait University, Information Science Department, 2003.
- Ranked the best TA in Computer Engineering Department for academic years (2002-2004)
- M.Sc. Achievements: Graduated with honor and second highest GPA in class 2002 for M.Sc. degree at the Department of Computer Engineering, Kuwait University.
- B.Sc. Achievements: Received the honor medal of HH the Amir of Kuwait Sheikh Jaber AlAhmed AlJaber AlSubah, 2000; Listed in the honorary dean’s list (1998 – 2000); Listed in the distinguished students list (1996 – 2000); Graduated with honor and highest GPA in class 2000 for B.Sc. degree at the Department of Computer Engineering, Kuwait University.

COMMUNITY SERVING

- Taught different training courses with the Deanship of community Serving and Continuing Education of Kuwait University including teaching computing essentials and presentation skills.
- Taught high school students at the summer camp by Kuwait Institution of Scientific Research (KISR) in cooperation with the College of Engineering and Petroleum.
- Visited high schools to give lectures that introduce the Department of Information Science to the students.

PROFESSION UNRELATED ACTIVITIES/HOBBIES

- Artistry work including drawing, painting, pottery, and more.
- Sport activities including different daily sport activities such as Pilates, Zumba, body design, bar workout, etc ..., in addition to horseback riding and participating in sports events such walkathons and marathons.

- Flower arrangement including giving practical workshops on flower arrangements essentials
- Interior design for mini projects such as designing living rooms etc ...