# Prof. Dr. Fadi Al-Turjman

Professor Computer Engineering Dept. Antalya Bilim University, Antalya, Turkey Fadi.alturjman@antalya.edu.tr



Prof. Dr. Fadi Al-Turjman is a Professor at Antalya Bilim University, Turkey. He received his Ph.D. degree in computing science from Queen's University, Canada, in 2011. He is a leading authority in the areas of smart/cognitive, wireless and mobile networks' architectures, protocols, deployments, and performance evaluation. His record spans more than 160 publications in journals, conferences, patents, books, and book chapters, in addition to numerous keynotes and plenary talks at flagship venues. He has received several recognitions and best papers' awards at top international conferences, and led a number of international symposia and workshops in flagship ComSoc conferences. He is serving as the Lead Guest Editor in several journals including the IET Wireless Sensor Systems (WSS), MDPI Sensors and Wiley Wireless Communications and Mobile Computing (WCMC). He is also the publication chair for the IEEE International Conf. on Local Computer Networks (LCN'18). He is the sole author for 3 recently published books about cognition and wireless sensor networks' deployments in smart environments with Taylor and Francis, CRC New York (a top tier publisher in the area).

# Academic ranks

- Professor (2018)
- Associate Professor (2015)
- Assistant Professor (2011)

# Education

**Ph.D.** (JUNE, 2011)

- School of Computing, Queen's University
- > Thesis title: "Efficient deployment for wireless sensor networks in environment monitoring".
- Advisor: Prof. Hossam Hassanein

# **M.Eng.** (JAN, 2007)

- Computer Engineering, Kuwait University
- GPA = 3.85 out of 4.00, distinction with honor.
- Advisor: Prof. Sultan Al-Harbi

#### **B.Eng.** (JUNE, 2004)

- Computer Engineering, Kuwait University.
- GPA = 3.83 out of 4.00, distinction with honor.

# **Research Interests**

- Smart-cities and mobile applications
- Architectures and data-delivery in Information-Centric Networks (ICNs) and Cloud Computing era
- Economic-based data delivery in the Internet of Things (IoT)
- Integration of heterogeneous enabling technologies in IoT
- Deployment planning in Next Generation Networks (NGN)
- Architectures and networking protocols in integrated RFID-Sensor Networks (RSNs)
- Design and implementation of Wireless Sensor Networks (WSNs) platforms
- Performance analysis in integrated communication systems

# Employment

**Professor** (Feb. 2018 – present) – Fulltime Department of Computer Engineering, Antalya Bilim University (Antalya, Turkey)

- Investigating strategies and performance analysis in the Internet of Things (IoT).
- Teaching and developing grad/undergrad courses at Antalya Bilim University.
  - ▶ Instructor/developer of the CS210: Data Structures course. (Undergrad)
  - Instructor/developer of the CS101: Python Programming course. (Undergrad)

# Associate Professor (Sept. 2015 – 2018) – Fulltime

Department of Computer Engineering, METU NCC (Guzelyurt, Cyprus)

- Investigating strategies and performance analysis in the Internet of Things (IoT).
- Teaching and developing grad/undergrad courses at METU NCC University.
  - Instructor/developer of the CNG476: System Simulations course. (Undergrad)
  - Instructor of the CNG334: Operating Systems course. (Undergrad)
  - ▶ Instructor/developer of the CNG597: Green Internet of Things course. (Grad)
  - Instructor/developer of the CNG495: Cloud Computing course. (Undergrad)
  - Instructor of the CTE 314: Computer Networks and Communication course. (Undergrad)
  - Instructor of the CNG230: C Programming course. (Undergrad)
  - Instructor of the CNG213: Data Structures course. (Undergrad)
  - ▶ Instructor/developer of the CNG443: Java Programming course. (Undergrad)
  - Instructor of the CNG331: Computer Organization course. (Undergrad)

# Assistant Professor (July 2013 – Oct. 2015) – Fulltime

School of Engineering, University of Guelph (Ontario, Canada)

- Investigating strategies and performance analysis in integrated wireless networks.
- Creating and pursuing new research directions in Information-Centric Networks (ICNs).
- Organizing and chairing international workshops/conferences on potential research directions in networks-related topics.
- Supervising and mentoring graduate/undergraduate students, and preparing advanced-topic tutorials at international conferences.
- Teaching and developing grad/undergrad courses in school of engineering at the University of Guelph.

- Instructor/developer of the ENGG4650: Integrated Sensors & Photonic Devices course in the School of Engineering, University of Guelph. (Undergrad)
- Instructor/developer of the ENGG4540: Advanced Computer Architectures course in the School of Engineering, University of Guelph. (Undergrad)
- Instructor/developer of the ENGG6xxx: Special topics on Wireless Sensor Networks course in the School of Engineering, University of Guelph. (Grad)

**Adjunct Assistant Professor** (Aug. 2013 - Present) – Part time ECE Dept., Queen's University (Ontario, Canada)

- Supervising and mentoring PhD students at Queen's University.
- Investigating new research topics in computing and telecommunications.

#### Postdoctoral Fellow (June 2011 – June 2013) - Fulltime

Telecommunications Research Lab (TRL), School of Computing, Queen's University (Ontario, Canada)

- Investigating strategies and performance analysis in integrated wireless networks under varying operational conditions and heterogeneous enabling technologies.
- Creating and pursuing new research directions in IoT.
- Producing a number of research papers to top conferences and journals in my research interests.
- Writing, preparing, and being consulted on grant proposals, reports, and presentations.
- Supervising and mentoring graduate/undergraduate students, and preparing advanced-topic tutorials at international conferences.
- Attending/organizing international workshops on potential research directions in networks-related topics.

Consultant (Jan. 2012 – Dec. 2013) – Part time King Saud University (Saudi Arabia)

- Consultant on the NPTS project (Novel Planning, Tracking, and Identification Schemes Towards Enabling Large Scale RFID Networks), Project number: 11-INF1500-02.
- Assessing viability of RFIDs in large scale deployments.
- Pursuing new research directions in integrated RFIDs & WSNs.

Adjunct Assistant Professor (Winter 2013) – Fulltime ECE Dept., Queen's University (Ontario, Canada)

 Instructor of the ELEC 476: Modeling and Systems Simulation course in the Dept. of Electrical & Computer Engineering, Queen's University.
 URL: <a href="http://research.cs.queensu.ca/~fadi/ELEC476">http://research.cs.queensu.ca/~fadi/ELEC476</a>

Adjunct Assistant Professor (Winter 2012) – Fulltime ECE Dept., Queen's University (Ontario, Canada)

 Instructor of the ELEC 374: Digital Systems Engineering course in the Dept. of Electrical & Computer Engineering, Queen's university.
 URL: http://research.cs.queensu.ca/~fadi/elec374.html Adjunct Assistant Professor (Fall 2011) – Fulltime School of Computing, Queen's University (Ontario, Canada)

Instructor of the CISC 435: Computer Networks course in the School of Computing, Queen's university. URL: <u>http://research.cs.queensu.ca/~cisc435/</u>

Teaching (2009 – 2011) – Part time Queen's University (Ontario, Canada)

• Teaching fundamentals of programming languages at the Enrichment Studies Unit, Queen's University.

Teaching Assistant (2007 – 2011) – Part time School of Computing, Queen's University (Ontario, Canada)

Assisted in teaching and grading undergraduate courses including Software Engineering and Computer Principles, in addition to providing support and guidance for students in their projects.

Research Assistant (2007 – 2011) – Fulltime School of Computing, Queen's University (Ontario, Canada)

- Investigating novel techniques for node placement in Wireless Sensor Networks (WSNs).
- Preparing and presenting WSNs topics at international conferences.
- Managing and coordinating wireless sensor networks projects in Drs. Hassanein's & Ibnkahla's laboratories.
- Engaged in designing sensor platforms that can interact with end users and can be used in multiplicity of applications. These include intelligent transportation systems which provide real-time traffic information for users inside their moving cars, forestry applications to detect fires and report wildlife activities, and water-bodies to record events concerning floods, water pollution, coral reef conditions and oil spills.
- Participated in designing and programming innovative self-powered sensor nodes, in addition to tackling other hardware and software aspects of the projects, viz. web server programming and components selection.
- Producing a number of research papers to top conferences and journals in my research interests.

Computer Engineer (2004 – 2007) – Fulltime College for Women, Kuwait University-Dean's Office (Kuwait)

Maintenance and troubleshooting in Computer Networks and PC's.

Lecturer (2005 – 2007) – Part time Dept. of Info. Sc., Kuwait University-College for Women (Kuwait)

• Developed and taught undergraduate-level courses in computing principles and programming languages.

Lecturer (2005 – 2007) – Part time

Telecommunication & Navigation Institute (Kuwait)

Taught undergraduate-level courses in the electrical department including, electronics I and II.

Teaching Assistant & Lab Instructor (2005 – 2007) – Part time

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College of Engineering, Kuwait University (Kuwait)

Assisted in teaching undergrad courses including Computer Networks and Memory Testing, in addition to providing support and guidance for students in their projects.

Research Assistant (2004 – 2007) – Part time College of Engineering, Kuwait University (Kuwait)

- Developing efficient computer memory tests for fault detection and diagnosing, discovering new memory faults, and providing support and guidance for undergrad students in their memory testing projects.
- Designing and testing linear and digital circuits.

Computer Engineer – Training Job (2003 – 2004) MTC-Vodaphone Telecommunications Company (Kuwait)

Computers and communication networks maintenance and troubleshooting.

# Honors, Awards and Scholarships

- > 2017: Authored Book publication award from METU University, North Cyprus.
- ▶ 2016: Best paper award in the IEEE IWCMC WS.
- 2011-present: Annually achieving Best paper awards at IEEE's International Conferences.
- 2010: Research Excellence Award, TRL lab, School of Computing, Queen's University.
- > 2007/09 2011/05: Queen's General Award, Queen's University, Canada.
- > 2008/05 2008/06: OCE Professional Outreach Award, at Brock University, Canada.
- 2008/02 2008/02: OCE Professional Outreach Award, Workshop in Guelph, Canada.
- > 2007/09 2009/12: Queen's International Student Award, Queen's University, Canada.
- > 2004/09 2007/01: Dean's list, Kuwait University, Kuwait.
- > 2004/09 2007/01: Distinction list, Kuwait University, Kuwait.
- > 2004: Graduation with Honors, awarded by the Prince of the State of Kuwait
- > 2000/09 2004/06: Distinction list, Kuwait University, Kuwait.
- > 2000/09 2004/06: Dean's list, Kuwait University, Kuwait.
- > 2000: Study Abroad Award, Damascus University, Syria.

# **Publications**

#### Selected Refereed Journal papers

- 1. S. Alabady and **F. Al-Turjman**, "A Novel Approach for Error Detection and Correction in Green Wireless Networks", *Springer Multimedia Tools and Applications*, 2018. (Submitted).
- 2. S. Alabady and **F. Al-Turjman**, and S. Din, "A Novel Security Model for Cooperative Virtual Networks in the IoT Era", *Springer International Journal of Parallel Programming*, 2018. (Submitted).

- 3. **F. Al-Turjman**, E. Ever, H. Zahmatkesh, "Small Cells in the Forthcoming 5G/IoT: Traffic Modelling and Deployment Overview", *IEEE Communications Surveys and Tutorials*, 2018. (Submitted).
- 4. **F. Al-Turjman**, and K. Killic, "LaGOON: A Simple Energy-aware Routing Protocol for Wireless Nano Sensor Networks", *IET Wireless Sensor Systems*, 2017. (Submitted).
- 5. D. Deebak, E. Ever, **F. Al-Turjman**, "Enhanced Real Time Uplink Scheduling Algorithm for VoIP Services in Multimedia Systems", *Transactions on Emerging Telecommunications*, 2018. (Submitted).
- 6. M. Karakoc, **F. Al-Turjman**, and M. Gunay, "Vehicle routing for agile blood transportation between medical facilities", *International Journal of Logistics*, 2017. (Submitted).
- 7. M. Z. Hasan, and **F. Al-Turjman**, "Lifetime Maximization by Partitioning in Wireless Sensor Networks", *Springer Journal of Applied Science*, 2017. (Submitted).
- 8. F. Al-Turjman, "ID Provisioning via Smart Enabling Technologies in SDNs", *Elsevier Ad Hoc Networks*, 2017. (Submitted).
- 9. F. Al-Turjman, "Real-Time Medium Access for Dynamic Speed Limits in Smart-cities' Vehicular-Cloud Framework" *IEEE Wireless Communications Magazine*. 2017. (Under review). (IF 8.23).
- F. Al-Turjman, "UAV-Enabled WSNs for Multimedia Delivery in Safety-Inspired Mobile IoT", IEEE Network Magazine. 2017. (Under review). (IF 7.23).
- 11. **F. Al-Turjman**, "WSNs for Plant Phenotyping: A Review on the State-of-the-Art", *Elsevier Computers & Electronics in Agriculture*, 2017. (Under review).
- 12. F. Al-Turjman, "Enhanced Positioning Approach for Precision Agriculture (PA) Applications", *Elsevier Computers & Electronics in Agriculture*, 2017. (Under review).
- 13. F. Al-Turjman, "Fog-based Caching in Software-Defined Information-Centric Networks", *Elsevier Computers & Electrical Engineering Journal*, 2017. (Under 2<sup>nd</sup> review).
- F. Al-Turjman, and S. Alturjman, "Context-sensitive Access in Industrial Internet of Things (IIoT) Healthcare Applications", *IEEE Transactions on Industrial Informatics*, 2018. DOI. 10.1109/TII.2018.2808190. (IF 6.9).
- F. Al-Turjman, "QoS-aware Data Delivery Framework for Safety-inspired Multimedia in Integrated Vehicular-IoT", *Elsevier Computer Communications Journal*, 2018. DOI. 10.1016/j.comcom.2018.02.012. (IF 3.34).
- 16. S. Alabady and **F. Al-Turjman**, "LCPC Error Correction Code for Internet of Things Applications", *Elsevier Sustainable Cities and Society*, 2018. DOI. 10.1016/j.scs.2018.01.036.

- A. Alchihabi, A. Dervis, E. Ever, F. Al-Turjman, "A Generic Framework for Optimizing Performance Metrics by Tuning Parameters of Clustering Protocols in WSNs", Springer Wireless Networks, 2017. DOI. 10.1007/s11276-018-1665-8.
- 18. F. Al-Turjman, "5G-enabled Devices and Smart-Spaces in Social-IoT: An Overview", Elsevier Future Generation Computer Systems, 2017. DOI: 10.1016/j.future.2017.11.035 (IF 3.99).
- 19. F. Al-Turjman, "A Rational Data Delivery Framework for Disaster-inspired Internet of Nano-Things (IoNT) in Practice", Springer Cluster Computing, 2017. DOI: 10.1007/s10586-017-1357-7.
- 20. M. Z. Hasan, and **F. Al-Turjman**, "SWARM-based data delivery in Social Internet of Things", *Elsevier Future Generation Computer Systems*, 2017. DOI: 10.1016/j.future.2017.10.032. (**IF 3.99**).
- 21. F. Al-Turjman, "Modelling Green Femtocells in Smart-grids", Springer Mobile Networks and Applications, 2017. DOI: 10.1007/s11036-017-0963-1. (IF 3.26).
- 22. F. Al-Turjman, E. Ever, H. Zahmatkesh, "Green Femtocells in the IoT Era: Traffic Modelling and Challenges An Overview", *IEEE Networks Magazine*, vol. 31, no. 6, pp. 48-55, 2017. (IF 7.23).
- 23. F. Al-Turjman, "Mobile Couriers' Selection for the Smart-grid in Smart cities' Pervasive Sensing", *Elsevier Future Generation Computer Systems*, vol. 82, no. 1, pp. 327-341, 2017. (IF 3.99).
- 24. F. Al-Turjman, "Energy-aware Data Delivery Framework for Safety-Oriented Mobile IoT", *IEEE Sensors Journal*, 2017. DOI: 10.1109/JSEN.2017.2761396.
- F. Al-Turjman, "A Cognitive Routing Protocol for Bio-inspired Networking in the Internet of Nano-Things (IoNT)", Springer Mobile Networks and Applications, 2017. DOI: 10.1007/s11036-017-0940-8. (IF 3.26).
- 26. **F. Al-Turjman**, "Optimized Hexagon-based Deployment for Large-Scale Ubiquitous Sensor Networks", *Springer's Journal of Network and Systems Management*, vol. 26, no. 2, pp. 255-283, 2018.
- 27. F. Al-Turjman, "Cognitive Routing Protocol for Disaster-inspired Internet of Things", *Elsevier Future Generation Computer Systems*, 2017. DOI: 10.1016/j.future.2017.03.014 (IF 3.99).
- 28. F. Al-Turjman, "Cognitive-Node Architecture and a Deployment Strategy for the Future Sensor Networks", Springer Mobile Networks and Applications, 2017. DOI: 10.1007/s11036-017-0891-0. (IF 3.26).
- 29. F. Al-Turjman, M. Imran, "Energy Efficiency Perspectives of Femtocells in Internet of Things: Recent Advances and Challenges", *IEEE Access Journal*, vol. 5, pp. 26808 26818, 2017. (IF 3.24).

- 30. F. Al-Turjman, "Information-Centric Framework for the Internet of Things (IoT): Traffic Modelling & Optimization", *Elsevier Future Generation Computer Systems*, vol. 80, no. 1, pp. 63-75, 2017. (IF 3.99).
- 31. M. Z. Hasan, and **F. Al-Turjman**, "Optimizing Multipath Routing With Guaranteed Fault Tolerance in Internet of Things", *IEEE Sensors Journal*, vol. 17, no. 19, 6463-6473, 2017.
- M. Z. Hasan, and F. Al-Turjman, "Evaluation of a Duty-Cycled Asynchronous X-MAC Protocol for Vehicular Sensor Networks", EURASIP Journal on Wireless Communications and Networking, vol. 2017, no. 1, pp. 95, 2017.
- 33. F. Al-Turjman, "Cognitive Caching for the Future Sensors in Fog Networking", *Elsevier Pervasive and Mobile Computing*, vol. 42, pp. 317-334, 2017.
- E. Ever, F. Al-Turjman, H. Zahmatkesh, and M. Riza, "Modelling Green HetNets in Presence of Failures for Dynamic Large-Scale Applications: A Case-study for Fault Tolerant Femtocells in Smart cities", *Elsevier Computer Networks Journal*, vol. 128, pp. 78-93, 2017.
- 35. **F. Al-Turjman**, "Price-based Data Delivery Framework for Dynamic and Pervasive IoT", *Elsevier Pervasive and Mobile Computing Journal*, vol. 42, pp. 299-316, 2017.
- F. Al-Turjman, Y. K. Ever, E. Ever, H. Nguyen, D. Deebak, "Seamless Key Agreement Framework for Mobile-Sink in IoT based Cloud-centric Secure Public Safety Networks", *IEEE Access*, vol. 5, no. 1, pp. 24617-24631, 2017. (IF 3.24).
- F. Al-Turjman, A. Radwan, S. Mumtaz, and J. Rodriguez, "Mobile Traffic Modelling for Wireless Multimedia Sensor Networks in IoT", *Elsevier Computer Communications Journal*, vol. 112, no. 1, pp. 109-115, 2017. (IF 3.34).
- F. Al-Turjman, and A. Radwan, "Data Delivery in Wireless Multimedia Sensor Networks: Challenging & Defying in the IoT Era", *IEEE Wireless Communications Magazine*, vol. 24, no. 5, pp. 126 – 131, 2017. (IF 8.97).
- M. Z. Hasan, H. Al-Rizzo and F. Al-Turjman, "A Survey on Multipath Routing Protocols for QoS Assurances in Real-Time Multimedia Wireless Sensor Networks", *IEEE Communications Surveys and Tutorials*, vol. 19, no. 3, pp. 1424-1456, 2017. (IF 17.1).
- 40. F. Al-Turjman, "Vehicular Speed Management in Smart-cities", International Journal of Advances in Electronics and Computer Science, vol. 4, no. 3, pp. 1-9, 2017.
- 41. M. Z. Hasan, **F. AI-Turjman** and H. Al-Rizzo, "Optimized Multi-Constrained Quality-of-Service Multipath Routing Approach for Multimedia Sensor Networks", *IEEE Sensors Journal*, vol. 17, no. 7, pp. 2298-2309, 2017.

- 42. F. Al-Turjman, M. Gunay, and I. Küçükoğlu, "The Road to Dynamic Future Internet via Content Characterization", Annals of Telecommunications, vol. 72, no. 3, pp. 209-219, 2017.
- 43. F. Al-Turjman, M. Imran, A. Vasilakos, "Value-based Caching in Information-Centric Wireless Body Area Networks", Sensors Journal, vol. 17, no. 1, pp. 1-19, 2017.
- 44. **F. Al-Turjman**, M. Karakoc, and M. Gunay, "Path Planning for Mobile DCs in Future Cities", *Annals of* Telecommunications, vol. 72, no. 3, pp. 119-129, 2017.
- 45. F. Al-Turjman, "Information-centric sensor networks for cognitive IoT: an overview", Annals of Telecommunications, vol. 72, no. 1, pp. 3-18, 2017.
- 46. F. Al-Turjman, "On Wireless Senor Networks for Plant Phenotyping: An Overview", International Journal of Agriculture and Forestry Science, vol. 1, no.1, pp. 19-22, 2016.
- G. Singh, and F. Al-Turjman, "A Data Delivery Framework for Cognitive Information-Centric Sensor Networks in Smart Outdoor Monitoring", *Elsevier Computer Communications Journal*, vol. 74, no. 1, pp. 38-51, 2016. (IF 3.34).
- 48. G. Singh, and **F. Al-Turjman**, "Learning Data Delivery Paths in Qol-Aware Information-Centric Sensor Networks", *IEEE Internet of Things Journal*, vol. 3, no. 4, pp. 572 580, 2016. (**IF 7.59**).
- 49. F. Al-Turjman, and M. Gunay, "CAR Approach for the Internet of Things (IoT)", IEEE Canadian Journal of Electrical and Computer Engineering, vol. 39, no. 1, pp. 11 18, Winter, 2016.
- M. Gunay, F. Al-Turjman, I. Küçükoğlu, and Y. Simsek, "A Novel Architecture for Data-Repeaters in the Future Internet", *IEEE Canadian Journal on Electrical and Computer Engineering*, vol. 38, no. 4, pp. 300 – 306, Fall, 2015.
- F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Towards prolonged lifetime for deployed WSNs in outdoor environment monitoring", *Elsevier Ad Hoc Networks Journal*, vol. 24, no. A, pp. 172 – 185, Jan., 2015.
- A. Al-Fagih, F. Al-Turjman, W. Alsalih and H. Hassanein, "A priced public sensing framework for heterogeneous IoT architectures," *IEEE Transactions on Emerging Topics in Computing*, vol. 1, no. 1, pp. 135-147, Oct. 2013.
- 53. **F. Al-Turjman**, H. Hassanein, S. Oteafy, and W. Alsalih, "Towards augmenting federated wireless sensor networks in forestry applications", *Springer: Personal and Ubiquitous Computing Journal*, vol. 17, no. 5, pp. 1025-1034, June, 2013.
- 54. F. Al-Turjman, A. Alfagih, W. Alsalih, and H. Hassanein, "A delay-tolerant framework for integrated RSNs in IoT", *Elsevier Computer Communications Journal*, vol. 36, no. 9, pp. 998–1010, May, 2013. (IF 3.34).

- 55. **F. Al-Turjman**, H. Hassanein, and M. Ibnkahla, "Quantifying connectivity in wireless sensor networks with grid-based deployments", *Elsevier: Journal of Network & Computer Applications*, vol. 36, no. 1, pp. 368-377, Jan, 2013.
- 56. F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Efficient deployment of wireless sensor networks targeting environment monitoring applications", *Elsevier: Computer Communications Journal*, vol. 36, no. 2, pp. 135–148, Jan. 2013. (IF 3.34).
- 57. F. Al-Turjman and H. Hassanein, "Towards augmented connectivity with delay constraints in WSN federation", *Inderscience: International Journal of Ad Hoc and Ubiquitous Computing*, vol. 11, no. 2, pp. 97-108, 2012.
- 58. F. Al-Turjman, H. Hassanein, W. Alsalih, and M. Ibnkahla, "Optimized Relay Placement for Wireless Sensor Networks Federation in Environmental Applications", Wiley: Wireless Communication & Mobile Computing Journal, vol. 11, no. 12, pp. 1677-1688, Dec. 2011.
- S. Al-Harbi, F. Noor, F. Al-Turjman, "March DSS: A New Diagnostic March Test for All Memory Simple Static Faults", *IEEE Transactions on CAD of Integrated Circuits and Systems*, vol. 26, no. 9, pp. 1713-1720, Sept. 2007.

# Selected Refereed Conference Papers

- B. Kizilkaya, M. Caglar, F. Al-Turjman, E. Ever, "An Intelligent Car Park Management System: Hierarchical Placement Algorithm Based on Nearest Location", In Proc. of the IEEE Int. Conf. on Advanced Information Networking and Applications, Cracow, Poland, 2018. (Accepted).
- 2. U. Ulusar, F. Al-Turjman and G. Celik, "An Overview of the Internet of Things and Wireless Communications", In Proc. of the IEEE International Conference on Information Sciences and Engineering (UBMK), Antalya, Turkey, 2017, pp. 506-509.
- 3. M. Z. Hasan, **F. Al-Turjman**, "SWARM-based data delivery framework in the AdHoc Internet of Things", In Proc. of the IEEE International Global Communications Conf. (GLOBECOM), Singapore, 2017. (Accepted).
- 4. **F. Al-Turjman**, "Vehicular Speed Learning in the Future Smart-cities", *In Proc. of the IEEE Local Computer Networks (LCN)*, Singapore, 2017. (Accepted).
- 5. U. Ulusar, G. Celik, **F. Al-Turjman**, "Wireless Communication Aspects in the Internet of Things: An Overview", *In Proc. of the IEEE Local Computer Networks (LCN)*, Singapore, 2017. (Accepted).
- 6. **F. Al-Turjman**, "Positioning in the Internet of Things Era: An Overview", *In Proc. of the IEEE International Conference on Engineering and Technology (ICET)*, Antalya, Turkey, 2017. (Accepted).

- Z. Chul, H. X. Nguyen I, T. A. Lel, M. Karamanoglu I, D. To, E. Ever, F. Al-Turjman, and A. Yazici, "D2D Cooperative Communications for Disaster Management", In Proc. of the IEEE Inter. Conf. on Telecommunications (ICT), Limassol, Cyprus, 2017, pp. 1-5.
- 8. Z. Chul, H. X. Nguyen, T. A. Lel, M. Karamanoglul, D. To, E. Ever, **F. Al-Turjman**, and A. Yazici, "Game Theory Based Secure Wireless Powered D2D Communications with Cooperative Jamming", *IEEE Wireless Days conference*, Porto, Portugal, 2017, pp. 95-98.
- 9. H. Zahmatkesh, E. Ever, F. Al-Turjman, M. Riza, "A Framework for Energy-Consumption in Future HetNets Towards Green Smart-cities", *In Proc. Of the Inter. Conf. on Internet of Things, Data and Cloud Computing (ICC)*, University of Cambridge, United Kingdom, 2017. (Accepted).
- F. Al-Turjman, "Path Finder for Medical Information Couriers in the IoT Era", In Proc. Of the Inter. Conf. on Internet of Things, Data and Cloud Computing (ICC), University of Cambridge, United Kingdom, 2017. (Accepted).
- 11. F. Al-Turjman, "Identification Framework for Smart Environments in the Era of Cloud-IoT", In Proc. Of the Inter. Conf. on Internet of Things, Data and Cloud Computing (ICC), University of Cambridge, United Kingdom, 2017. (Accepted).
- 12. F. Al-Turjman, "Vehicular Speed Management in Smart-cities", In Proc. Of the Inter. Conf. on Vehicular, Mobile and Wearable Technology (ICVMWT), Antalya, Turkey, pp. 1-6, Jan. 2017.
- 13. F. Al-Turjman, "Impact of User's Habits on Smartphones' Sensors: An Overview", HONET-ICT International IEEE Symposium, Kyrenia, Cyprus, pp. 70-74, Oct. 2016.
- 14. F. Al-Turjman, Islam Elgedawy, "IdProF: Identity Provisioning Framework for Smart Environments", HONET-ICT International IEEE Symposium, Kyrenia, Cyprus, pp. 12-16, Oct. 2016.
- F. Al-Turjman, A. Betin-Can, E. Ever, S. Alturjman, "Ubiquitous Cloud-based Monitoring via a Mobile App in Smartphones: An Overview", *IEEE International Conference on Smart Cloud*, New York, USA, pp. 1-6, 2016.
- F. Al-Turjman, and M. Gunay, "Network Traffic Modeling using Content Demand Ellipses", In proc. Of the International Conference on Computer Science and Engineering, Tekirdağ, Turkey, pp. 356-361, 2016.
- 17. F. Al-Turjman, "Towards Smart eHealth in the Ultra Large-scale Internet of Things Era", In Proc. Of the International Iranian Conf. on Biomedical Engineering, Tehran, Iran, pp. 102-105, 2016.
- F. Al-Turjman, "Hybrid Approach for Mobile Couriers Election in Smart-cities", In Proc. of the IEEE Local Computer Networks (LCN), Dubai, UAE, pp. 507-510, 2016.

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- M. Z. Hasan, F. Al-Turjman, H. Al-Rizzo "Evaluation of a Duty-cycled Protocol for TDMA-Based Wireless Sensor Networks", In Proc. of the International Wireless Communications and Mobile Computing Conference, Paphos, Cyprus, pp. 964-969, 2016.
- 20. F. Al-Turjman, M. Karakoc, and M. Gunay, "Routing Mobile Data Couriers in Smart-cities" In Proc. of the IEEE International Conf. on Communications (ICC), Kuala Lumpur, Malaysia, pp. 1-6, 2016.
- M. Karakoc, F. Al-Turjman, and M. Gunay, "Routing Approach for Urgent Blood Transportation between Medical Facilities", In Proc. of the 6th Hospital and Health Services Management Congress, Antalya, Turkey, 2015, pp. 1-1.
- 22. R. Özdemir, **F. Al-Turjman**, M. Günay, "Stay Connected In Vehicular Wireless Networks Using Graph Theory And Al", *The 28th Inter. Conf. of The Jangjeon Mathematical Society, Antalya, Turkey, 2015, pp.121-121.*
- 23. E. Goceri, **F. Al-Turjman**, and M. Gunay, "Facial Disorders Detection in the Internet of Things Era", *In Proc. of the 7th International Bioengineering Congress*, Izmir, Turkey, 2015. pp. 1-1.
- 24. F. Al-Turjman, "On Wireless Sensor Networks for Plant Phenotyping", In Proc. of the Inter. Conference on Computational & Experimental Science & Engineering (ICCESEN), Antalya, Turkey, 2015, pp. 110-114.
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- 26. F. Al-Turjman, I. Küçükoğlu, and M. Gunay, "Placement of Virtual Data Repeaters using the Eccentricity of the Graph and Distribution of Popular Content in the Future Internet", *In Proc. of the Inter. Conference of The Jangjeon Mathematical Society*, Antalya, Turkey, 2015, pp. 118-118.
- 27. E. Goceri, M. Gunay, and **F. Al-Turjman**, "Automated Detection Of Facial Disorders (Adfd): A Novel Approach Based-On Digital Photographs", *In Proc. of the Inter. Conference of The Jangjeon Mathematical Society*, Antalya, 2015, pp. 126-126.
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- 29. Y. Simsek, **F. Al-Turjman**, and M. Gunay, "Bernoulli polynomials in the Future Internet and Optimization", *In Proc. of the Inter. Symposium on Mathematical Programing (ISMP)*, Pittsburgh, PA, USA, July, 2015.

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- M. Gunay, F. AI-Turjman, and I. Küçükoğlu, "Adaptive Placement of Data Publishers Based on Network Demand in ICN", In Proc. of the Inter. Conference of The Jangjeon Mathematical Society, Antalya, Turkey, May, 2015.
- 32. E. Colmenar, **F. Al-Turjman**, M. Biglarbegian, "Data Delivery and Gathering in IoT Applications: An Overview", *In Proc. of the IEEE Local Computer Networks (LCN)*, Edmonton, Canada, 2014, pp. 806-811.
- M. Qutqut, H. Abou-zeid, H. Hassanein, A. Rashwan, and F. Al-Turjman, "Dynamic Small Cell Placement Strategies for LTE Heterogeneous Networks", In Proc. of the IEEE Symposium on Computers and Communications (ISCC), Madeira, Portugal, 2014, pp. 1-6.
- 34. N. Haggag, A. Noureldin, and **F. Al-Turjman**, "Radial Basis Neural Network Function (RBNNF)-based Positioning System" In Proc. of the IEEE Queen's Biennial Symposium on Communications (QBSC), Kingston, ON., Canada, 2014. (Accepted).
- G. Singh, M. Abu-Elkheir, F. Al-Turjman, and A. Taha, "Towards Prolonged Lifetime for Large-scale Information-Centric Sensor Networks" In Proc. of the IEEE Queen's Biennial Symposium on Communications (QBSC), Kingston, ON., Canada, 2014, pp. 87-91.
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- G. Singh, and F. Al-Turjman, "Cognitive Routing for Information-Centric Sensor Networks in Smart Cities" In Proc. of the International Wireless Communications and Mobile Computing Conference (IWCMC), Nicosia, Cyprus, 2014, pp. 1124 - 1129.
- M. Biglarbegian and F. Al-Turjman, "Path Planning for Data Collectors in Precision Agriculture WSNs", In Proc. of the International Wireless Communications and Mobile Computing Conference (IWCMC), Nicosia, Cyprus, 2014, pp. 483 - 487.
- F. Al-Turjman, A. Al-Fagih, and H. Hassanein, "A Value-Based Cache Replacement Approach for Information-Centric Networks", *In Proc. of the IEEE Local Computer Networks (LCN)*, Sydney, Australia, 2013, pp. 902-909.
- M. Qutqut, F. Al-Turjman, and H. Hassanein, "HOF: A History-based Offloading Framework for LTE Networks Using Mobile Small Cells and Wi-Fi", *In Proc. of the IEEE Local Computer Networks (LCN)*, Sydney, Australia, 2013, pp. 77-83.

- F. Al-Turjman and H. Hassanein, "Enhanced data delivery framework for dynamic Information-Centric Networks (ICNs)", In Proc. of the IEEE Local Computer Networks (LCN), Sydney, Australia, 2013, pp. 831-838.
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- 43. M. Qutqut, F. Al-Turjman, and H. Hassanein, "MFW: Mobile Femtocells utilizing WiFi", In Proc. of the IEEE International Conf. on Communications (ICC), Budapest, Hungary, 2013, pp. 5020-5024.
- A. Alfagih, F. Al-Turjman, and H. Hassanein, "Online Heuristics for Monetary-Based Courier Relaying in RFID-Sensor Networks", In Proc. of the IEEE International Conf. on Communications (ICC), Budapest, Hungary, 2013, pp. 293-297.
- 45. S. Oteafy, **F. Al-Turjman**, and H. Hassanein, "Pruned Adaptive Routing in the Heterogeneous Internet of Things", *In Proc. of the IEEE International Global Communications Conf. (GLOBECOM)*, Anaheim, California, 2012, pp. 232-237.
- A. Alfagih, F. Al-Turjman, and H. Hassanein, "Ubiquitous Robust Data Delivery for Integrated RSNs in IoT", In Proc. of the IEEE International Global Communications Conf. (GLOBECOM), Anaheim, California, 2012, pp. 298-303.
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- 48. F. Al-Turjman, W. Alsalih, and H. Hassanein, "Towards augmented connectivity in federated wireless sensor networks", *In Proc. of the IEEE International Conference on Wireless Communications and Networking (WCNC)*, Paris, France, 2012, pp. 1882 1886.
- F. Al-Turjman, A. Alfagih, and H. Hassanein, "A Novel Cost-Effective Architecture and Deployment Strategy for Integrated RFID and WSN Systems", In Proc. of the IEEE International Conference on Computing, Networking and Communications (ICNC), Maui, Hawaii, 2012, pp. 835 - 839.
- F. Al-Turjman, H. Hassanein, and S. Oteafy, "Towards Augmenting Federated Wireless Sensor Networks", In Proc. of the IEEE International Conf. on Ambient Systems, Networks and Technologies (ANT), Niagara Falls, ON. Canada, 2011, pp. 224-231. (Best paper award)
- 51. F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Optimized Wireless Sensor Network Federation in Environmental Applications", *In Proc. of the IEEE International Global Communications Conf. (GLOBECOM)*, Houston, Texas, 2011, pp. 1-5.

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- F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Optimized Relay Placement to Federate Wireless Sensor Networks in Environmental Applications", In Proc. of the IEEE International Workshop on Federated Sensor Systems (FedSenS), Istanbul, Turkey, 2011, pp. 2040-2045.
- 53. F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Optimized Relay Repositioning for Wireless Sensor Networks Applied in Environmental Applications", *In Proc. of the IEEE International Wireless Communications and Mobile Computing conf. (IWCMC)*, Istanbul, Turkey, 2011, pp. 1860-1864.
- 54. **F. Al-Turjman**, A. Alfagih, H. Hassanein, and M. Ibnkahla, "Deploying Fault-Tolerant Grid-Based Wireless Sensor Networks for Environmental Applications", *In Proc. of the IEEE International Workshop on Wireless Local Networks (WLN)*, Denver, Colorado, 2010, pp. 731-738.
- F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Quantifying Connectivity of Grid-based Wireless Sensor Networks under Practical Errors", *In Proc. of the IEEE Local Computer Networks (LCN)*, Denver, Colorado, 2010, pp. 224-227.
- 56. **F. Al-Turjman**, H. Hassanein, and M. Ibnkahla, "Quantifying the Effects of Placement Errors on WSN Connectivity in Grid-based Deployments", *In Proc. of the IEEE Queen's Biennial Symposium on Communications (QBSC)*, Kingston, ON., 2010. pp. 59-62.
- 57. F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Connectivity optimization with realistic lifetime constraints for node placement in environmental monitoring", *In Proc. of the IEEE Local Computer Networks* (*LCN*), Zürich, 2009, pp. 617-624.
- 58. F. AI-Turjman, H. Hassanein, and M. Ibnkahla, "Connectivity optimization for wireless sensor networks applied to forest monitoring", *In Proc. of the IEEE International Conf. on Communications (ICC)*, Dresden, Germany, 2009, pp. AHSN11.5.1-5.
- 59. F. Al-Turjman, M. Ibnkahla, and H. Hassanein, "An overview of wireless sensor networks for ecology and forest monitoring", *In Proc. of the IEEE International Workshop on Signal Processing and its Applications* (WoSPA), Sharqa, UAE, 2008.
- 60. S. Al-Fedaghi, and **F. Al-Turjman**, "Conceptual Modelling: A Privacy Perspective", In Proc. of the IEEE International Conference on Digital Ecosystems and Technologies (DEST), Cairns, Australia, 2007, pp. 21-23.
- 61. A. Muqaddas, F. Al-Turjman, and S. Habib, "Impact of Dynamic Channel Assignment Algorithms on Blocking Probability in Ad Hoc Wireless Sensor Networks", In the 10th annual Symposium Performance Evaluation of Computer and Telecommunication Systems (SPECTS), San Diego, California, 2007.

#### **International Workshops & Posters**

 M. Qutqut, and F. Al-Turjman, "Mobile Femtocells utilizing WiFi (MFW): A data offloading framework for cellular networks using mobile femtocells", In the 4th annual Queen's Graduate Computing Society Conference (QGCSC), Kingston, ON., 2013.

- 2. A. Alfagih, and **F. Al-Turjman**, "A Courier-based Integrated RSN Architecture for IoT Applications", In the 3rd annual Queen's Graduate Computing Society Conference (QGCSC), Kingston, ON., 2012.
- 3. **F. Al-Turjman**, A. Alfagih, and H. Hassanein, "Relays Placement towards Federated Wireless Sensor Networks", In the 3rd annual WiSense workshop program, Ottawa, ON., 2011.
- 4. **F. Al-Turjman**, H. Hassanein, and M. Ibnkahla, "Cost-Effective Approach in Integrated RFID and WSN Systems", In the 3rd annual WiSense workshop program, Ottawa, ON., 2011.
- 5. **F. Al-Turjman**, H. Hassanein, and M. Ibnkahla, "Wireless Sensor Networks Deployment in Outdoor Environment Monitoring Applications", In the weekly WiSense seminar series, Ottawa, ON., 2011.
- 6. **F. Al-Turjman**, H. Hassanein, and M. Ibnkahla, "Quantifying Connectivity of Grid-based Wireless Sensor Networks", In the 2nd annual Queen's Graduate Computing Society Conference (QGCSC), Kingston, ON., 2011.
- 7. F. Al-Turjman, H. Hassanein, and M. Ibnkahla, "Efficient & Practical Deployment of Wireless Sensor Networks Targeting Environment Monitoring Applications", In the 1st annual Queen's Graduate Computing Society Conference (QGCSC), Kingston, ON., 2010.
- 8. **F. Al-Turjman**, A. Al-Maaitah, B. Al-Nabulsi, Z. El-Jabi, A. Abu-Alkhier, and M. Ibnkahla, "Design and Hardware Implementation of Wireless Sensor Networks for Environment Monitoring", In the 2nd annual WiSense workshop program, Kingston, ON., 2010.
- 9. F. Al-Turjman, A. Al-Maaitah, Z. El-Jabi, A. Abu-Alkhier, and M. Ibnkahla, "Wireless Sensor Networks for Natural Resources Assessment and Monitoring", In the Ontario Centers of Excellence (OCE) Earth and Environmental Technology, Ottawa, ON., 2009.
- F. Al-Turjman, M. Ibnkahla, and H. Hassanein, "Wireless Sensor Networks for Natural Resources Assessment and Forestry Applications", In the Ontario Centers of Excellence (OCE) - Earth and Environmental Technology, Guelph, ON., 2008.

# Books

- 1. **F. Al-Turjman**, single author of a book titled: "Intelligence in IoT-enabled Smart-Cities", to be Published with Taylor and Francis, CRC, New York, 2018.
- 2. **F. Al-Turjman,** single editor of a book titled: "Performability in the Internet of Things", to be published with Springer, New York, 2018.
- 3. **F. Al-Turjman,** single editor of a book titled: "Edge Computing: From Hype to Reality", to be published with Springer, New York, 2018.

- 4. **F. Al-Turjman**, single author of a book titled: "Smart Things & Femtocells: From Hype to Reality", to be *Published with Taylor and Francis, CRC,* New York, 2018. ISBN 9781138593893.
- 5. **F. Al-Turjman**, single author of a book titled: "Multimedia-enabled Sensors in IoT: Data Delivery & Traffic Modelling", *Published with Taylor and Francis, CRC,* New York, 2018. ISBN 978-0-8153-8711-4.
- 6. **F. Al-Turjman** & A. Radwan, Edited eBook: "Internet of Things: Applications and Paradigms", to be published with Avid Science, Berlin, Germany, 2018.
- 7. F. Al-Turjman & M. Imran, Edited book: "IoT-enabled Sensors in Smart-cities", to be published with IET press, UK, 2018.
- 8. **F. Al-Turjman**, single author of a book titled: "Wireless Sensor Networks: Deployment Strategies for Outdoor Monitoring", *Published with Taylor and Francis, CRC*, New York, 2018. ISBN 9780815375814.
- 9. **F. Al-Turjman**, single author of a book titled: "Cognitive Sensors & IoT: Architecture, Deployment, and Data Delivery" *Published with Taylor and Francis, CRC*, New York, 2017. ISBN 978-1-138-10229-3.

#### **Book chapters**

- 1. **F. Al-Turjman**, a book chapter in a book titled "Transportation and Power Grid in Smart Cities: Communication Networks and Services", *to be published by John Wiley, UK*, 2018. Eds. H. T. Mouftah, M. Erol-Kantarci, M. H. Rehmani. ISBN: 978-1-119-36008-7.
- 2. F. Al-Turjman, H. Hassanein, and M. Ibnkahla, a book chapter titled: "Cognitive Diversity Routing" in the "Wireless Sensor Networks: A Cognitive Perspective", *Published with Taylor and Francis, CRC*, New York, 2013. ISBN-13: 978-1-4398-5281-1.
- 3. **F. Al-Turjman**, "Digital Convergence" track of the "Future Information Technology, Application, and Service", Springer 2012. ISBN: 978-94-007-5063-0.

#### Patents

- M. Ibnkahla and F. Al-Turjman (2014), Wireless Sensor Networks for Environment Monitoring, IP disclosure submitted in 2014 to PARTEQ Innovations. (PhD. Work)
- S. Al-Harbi, F. Noor, and F. Al-Turjman (2009), March DSS: Memory Diagnostic Test, No. 20090199057, patent published in 2009. (MSc. Work)
- S. Al-Hadhoud, A. Alhudhoud, F. Noor, F. Al-Turjman, M. Ahmed, M. Hussain, R. Abdulwahab, A. Al-Naki, S. Al-Harbi, R, Al-Oufan, and H. Al-Ajeel (2008), <u>Flipping Trash Can</u>, No. 20080203091, patent published in 2008. (MSc. Work)

Google Scholar - Citation indices		All	Since 2012
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# **Professional Activities & Services**

# Lead Guest Editor/ Editor in refereed journals

- IEEE Access
- MDPI Sensors
- IET Wireless Sensor Systems
- Wiley&Hindawi Wireless Communications and Mobile Computing

# **Curriculum development**

- 2015-present: participating in developing grad/undergrad computer engineering program at Middle East Technical University (METU), North Cyprus.
- ▶ 2014-2015: participating in developing grad/undergrad computer engineering program at Akdeniz University, Antalya, Turkey.
- 2013-2014: participated in developing grad/undergrad computer engineering program at University of Guelph, Canada.

# Graduate Supervision

- > 2016-present: Co-supervising I MSc. and I PhD. students at METU University, North Cyprus.
- > 2015-present: Co-supervising I MSc. and I PhD. students at METU University, North Cyprus.
- 2014-present: Co-supervising I MSc. and 2 PhD. students at Akdeniz University, Antalya, Turkey.
- > 2015-present: Co-supervising 2 Postdoctoral Fellows at METU University, North Cyprus.
- > 2013-2016: Supervising I Ph.D. student at Queen's University, Canada.
- > 2013-2014: Supervising 2 visiting Postdoctoral Fellows at the University of Guelph, Canada.
- 2013-2014: Supervising I visiting Research Associate at the University of Guelph, Canada.
- 2011-2014: Supervising/Co-supervising I MSc., 2 M.Eng., and 3 PhD. students at University of Guelph & Queen's University, Canada.

# **Advisory Committees**

- > 2018: involved in 1 MSc. advisory committee (as Co-advisor)
- > 2018: involved in 2 MSc. advisory committee (as Jury member)
- > 2017: involved in 1 PhD. advisory committee (as Co-advisor)
- > 2016: involved in 1 PhD. advisory committee (as Co-advisor)
- ▶ 2015: involved in 1 PhD. advisory committee (as Supervisor)
- > 2014: involved in 1 PhD., 2 M.Eng. and 1 MSc. advisory committee (as Supervisor)
- > 2013: involved in 1 PhD advisory committee (as Supervisor)

# **Examination Committees**

 2014-present: involved in PhD and master students examination committees at Queen's University, METU NCC, and University of Guelph, Canada.

### **Funded Projects**

- ▶ 2018: Newton Institutional Links grants with British Council ~£97507.92 (submitted and under review).
- 2017: Wireless Agriculture Senor An Implementation in Precision Agriculture (~500,000 USD): In this research we aim to design and implement a wireless network to handle remote monitoring and control of a large number of sensing and monitoring devices under variable density and mobility conditions in precision agriculture.
- 2016: Newton Institutional Links grants (British Council) ID-216429427 (~£97507.92): In this research we proposed Location-based Control and Management System for Safety Warning and Emergency Rescuing Services using LTE D2D Technology.
- ▶ 2015: SRP-Intercampus Grant, Northern Cyprus FEN-16-k-6 (~\$USD 20,000): In this research we proposed an automated virtual profile creation framework via mobile sensory data over the Cloud.
- ▶ 2015: SRP Grant, Northern Cyprus FEN-16-YG-5 (~\$USD 20,000): In this project we aim at enabling Ultra Large Scale (ULS) sensing in the green Internet of Things era.
- ▶ 2014: Tubitak 3001- No. 115E198, Turkey (~\$USD 30,000): This research is investigating innovative integrated platforms and data delivery techniques to satisfy the variety of the emerging applications' requirements and user expectations in terms of interoperability, resource management and pricing. It significantly contributes to the global efforts of developing techniques and tools for the commercially-viable communication systems in the future Internet.
- 2013: NSERC Discovery grant, Canada (~\$USD 125,000): This research fund aims to devise enhanced data delivery solutions that can promptly provide the Canadian telecommunications sector, both vendors and service providers, data-centric networks that enable the realization of the Future Internet (Internet of Things) ahead of our international competitors. This is a complementary project, in which I aim at connecting the unconnected objects in a data-centric fashion, where data is located by its name not by the physically hosting device of that data.
- 2013: Ministry of Transportation of Ontario, Canada (~\$USD 120,000): This research proposes a new system in which the highway can modify the speed limits adaptively based on the weather and road conditions. This is another project that aims at realizing one particular aspect of the smart planet concept by realizing a smart highway in the next generation intelligent transportation systems. It is expected to have a remarkable impact on the safety of Ontario's highways, which is accompanied by a substantial economic gain.
- 2013: NSERC Engage grant, Canada (~\$USD 24,000): In this project self-powered data collectors with wireless communications was utilized in providing the most benefits for the least cost in realizing Precision Agriculture (PA). We will prioritize a wireless, ease of installation and plug-and-play capabilities,

resulting in a reliable solution that will increase the efficiency of the crop production throughout the proposed project. It will be a great opportunity with the Modern DSP Inc. to show up the brilliant side of utilizing modern technologies in PA.

- 2013: Startup Fund from UoG, Canada (~\$USD 30,000): Its main purpose is to purchase on-going research equipment, and support other funding programs that require matching funds. This fund is mainly targeted to support research prior to obtaining funding from other sources. While working at the School of Engineering, University of Guelph (UoG), I had the opportunity to apply towards multiple large scales projects related to industrial and governmental applications not only in Canada; viz., Optimized Data Delivery in the Future Internet (NSERC Discovery'14 Individual research project), but also outside Canada; viz., High Capacity Wireless Senor Networks for Precision Agriculture Applications: Theory and Implementation (NPRP 7-1638-2-607), with a group of researchers in Qatar.
- 2009-2012: While working at the TRL in the school of computing, Queen's University, I had the opportunity to contribute towards multiple large scales projects related to industrial and governmental applications in Canada; viz., Screen Health Monitoring and Fault Detection using WSNs at Syncrude Canada Inc., WSNs for Forestry and Wildlife Monitoring that has been supported by the Ministry of Natural Resources, Canada. I participated in writing several major grant and research proposals. These proposals were made to both governmental and industrial entities, including NSERC, Ontario Center of Excellence (OCE), Canadian Microelectronics Corporation (CMC), and Syncrude in Canada.

# **Conference & Workshop Organizer**

- Publications' General Chair of the IEEE LCN 2018
- Workshops' General Chair of the IEEE LCN 2017: http://www.ieeelcn.org/Workshops.html
- General Chair of the 2016: <u>Smart Cities and Smart Mobility Platforms symposium</u> in IEEE IWCMC'16.
- Students Grant Chair of the IEEE LCN 2016: <u>http://www.ieeelcn.org/Committees\_Org\_2016.html</u>
- Registration chair of the 2015: <u>IEEE Local Computer Networks</u> (LCN'15).
- Registration chair of the 2014: <u>IEEE Local Computer Networks</u> (LCN'14).
- Co-Chair of the 2014: Wireless Sensor Networks Symposium, in IEEE IWCMC'14
- Chair of the 2013: <u>Wireless Local Networks</u>, in conjunction with IEEE LCN'13
- Organizer of the 2012: <u>Smart vehicles in the IoT era</u>, School of Computing, Queen's University.
- TPC-Chair of the 2012: Green Internet of Things, in conjunction with IEEE Globecom'12
- Co-Chair of the 2012: Wireless Local Networks, in conjunction with IEEE LCN'12
- Co-Chair of the 2012: Integrated Enabling Technologies, in conjunction with MUSIC'12

#### **Conference Technical Program Committee Member**

- 2015: IEEE International Conference on Machine Learning and Applications
- 2015: International Conference of the Jangjeon Mathematical Society (ICJSM)
- ▶ 2012'13'14'15: IEEE Local Computer Networks Conference (LCN)
- > 2014: IEEE International Conference on Computer Communications (INFOCOM)
- > 2014: IEEE Wireless Communications & Networking Conference (WCNC)
- ▶ 2014: IEEE International Wireless Communications and Mobile Computing (IWCMC)

- 2013: IEEE International Global Communications Conference (GLOBECOM)
- > 2012'13: IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)
- 2012'13: IEEE International Conference on Communications (ICC)
- > 2010'11'12: IEEE International Global Communications Conference (GLOBECOM)
- > 2012: IEEE Future Information Technology (FutureTech)
- 2011: IEEE Symposium on Computers and Communications (ISCC)
- ▶ 2011: IEEE MAC protocols, Systems, and applications (MASS)

# **Book Referee**

Since 2010: Referee for a number of top book publishers including Wiley & Sons, Springer, CRC Press, etc.

#### Journal Referee

Since 2007: Referee for a number of top journals including, IEEE Transactions on Mobile Computing, IEEE Transactions on Vehicular Technology, IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, Journal of Computer Communications, Elsevier, and Journal of Parallel and Distributed Computing, Elsevier.

#### **Conference Referee**

Since 2007: Referee for major conferences including, IEEE International Conference on Computer Communications (INFOCOM), IEEE Global Communications (GLOBECOM), IEEE International Conference on Communications (ICC), IEEE International Symposium on Computers and Communications (ISCC), IEEE International Wireless Communications and Mobile Computing (IWCMC), IEEE Local Computers and Networks (LCN), IEEE Wireless Communications and Networking Conference (WCNC), IEEE MAC protocols, Systems, and applications (MASS), IEEE Future Information Technology (FutureTech), and IEEE Mobile, Ubiquitous, and Intelligent Computing (MUSIC).

#### **University Committee Services**

- > 2014 2015: Member of the Graduate Committee at the Akdeniz University, Antalya, Turkey.
- > 2013 2014: Member of the Graduate Committee at the School of Engineering, University of Guelph.
- ▶ 2013 2014: Member of the Computer Committee at the School of Engineering, University of Guelph.
- 2005 2007: Member of the faculty and computer engineers' hiring committee at the college for women, Kuwait University.

# **Professional Memberships**

- 2011 2014: <u>Sprouts Sensor Platform Team</u>
- > 2008 2011: Monitoring Natural Resources Group
- > 2007 present: Wireless Sensor Networks Group @ TRL, Queen's University
- ▶ 2007 present: IEEE Communication Society (ComSoc)
- ▶ 2007 present: Association for Computing Machinery (ACM)
- > 2005 present: Institute of Electrical and Electronics Engineers (IEEE)

Referees

- Prof. Hossam Hassanein, http://www.cs.queensu.ca/~hossam
  Professor and Director, Telecommunications Research Lab
  School of Computing, Queen's University, Kingston, Ontario, Canada, K7L 3N6
  Phone: 1-613-533-6052, Fax: 1-613-533-6513
  Email: Hossam@cs.queensu.ca
- Prof. Damla Turgut, http:// www.cs.ucf.edu/~turgut
  Associate Professor, Department of Electrical Engineering and Computer Science, University of Central Florida, Orlando, FL 32816-2362, Phone: 1- 407-823-6171, Fax: 1- 407-823-5835
   Email: turgut@eecs.ucf.edu
- Prof. Aboelmagd Noureldin, http://www.rmc.ca/aca/ece-gei/per/noureldin-a-eng.asp Associate Professor, Department of Electrical and Computer Engineering, Royal Military College of Canada P.O.Box 17000 STN Forces Kingston, Ontario, Canada, K7K7B4 Phone: 1-613-541 6000 Ext. 6366, Fax: 1-613-544 8107 Email: noureldin-a@rmc.ca
- Prof. Abdelhamid Taha, http://www.abdelhamidtaha.com/ Assistant Professor, College of Engineering, Al Faisal University, Riyadh, KSA Phone: 1-966-1-2157757, Fax: 1-613-533-6513 Email: hamid.taha@gmail.com