

## ACADEMIC CURRICULUM VITAE

**1. Name - Surname:** Fadi Alturjman

**2. Title:** Prof.Dr.

**3. Educational Background:**

<b>Degree</b>	<b>Department/Program</b>	<b>University</b>	<b>Year</b>
Bachelor's	Computer engineering	Kuwait University	2004
Master's	Computer engineering	Kuwait University	2007
PhD	Computer Science	Queen's University	2011

**4. Master's / PhD Thesis**

**4.1. Master's Thesis Title and Thesis Advisor(s):**

**4.2. PhD Thesis /Medical Specialty Thesis Title and Advisor(s):**Efficient deployment for wireless sensor networks in environment monitoring. Advisor: Prof. Hossam Hassanein

**5. Academic Titles:**

**Date of Assistant Professorship:**2011

**Date of Associate Professorship:**2015

**Date of Professorship:**2019

**6. Supervised Master's and PhD Theses:**

**6.1. Master's Theses**

- Mercel, MSc., OPTIMIZING ENERGY IN THE DIGITAL AGE:TRANSFORMER FOR SOLAR IRRADIANCE FORECASTING
- Thomas - MSc., AN AI-BASED SOLUTION FOR SWEETPOTATO LEAF DISEASE DIAGNOSIS: (AGROO AI)
- A DEEP ATTENTION FRAMEWORK FOR NETWORK ANOMALY DETECTION
- Usman, MSc., STUDENT ACADEMIC PERFORMANCE PREDICTION WITH WI-FI IoT ATTENDANCE SYSTEM
- Juanita, MSc., TRANSFORMERS IN WILDFIRE DETECTION
- Osman, MSc., PREDICT STUDENT PERFORMANCE USING DATA MINING AND MACHINE LEARNING TECHNIQUES

- Suleyman, MSc., INTELLIGENT LIGHT CONTROL IN THE IOT ERA
- Yemi Okome, Near East University, Nicosia
- Nehemiah Adeosun, Near East University, Nicosia
- Dawood Barakat, Near East University, Nicosia
- Suleeman Cabdulaahi, Near East University, Nicosia
- Bashiir Abdirahman, Near East University, Nicosia
- Maram Arto, Near East University, Nicosia
- Kemal Kilic, Middle East Technical University, Nicosia
- Joel Lemayan, Antalya Bilim University, Antalya, Turkey
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## 6.2. PhD Theses

- Hssana bubaker, Near East University, Nicosia
- Abdulrahman Almumani, Near East University, Nicosia
- Ramiz Salama, Near East University, Nicosia
- Naser Saleh Mohamed Naser, Near East University, Nicosia
- Mubarak Auwal, Near East University, Nicosia
- Adedoyin Hussain, Near East University, Nicosia
- Gayathri Nagasubramanian, Galgotias University, Uttar Pradesh, India
- Gurkan Celik, Akdeniz university, Turkey
- Gayathri Tilak Singh, Queen's University, Canada
- Tarek El Salti, University of Guelph, Canada

## 7. Publications

### 7.1. Articles Published in International Peer-Reviewed Journals (SCI,SSCI, AHCI, ESCI, Scopus)

1. P. Singh, R. Kumar, M. Gupta, F. Al-Turjman, "SegEIR-Net: A Robust Histopathology Image Analysis Framework for Accurate Breast Cancer Classification", Current Medical Imaging, 2024.
2. P. Chithaluru, F. Al-Turjman, R. Dugyala, T. Stephan, M. Kumard, J. Dhatteval, "An Enhanced Consortium Blockchain Diversity Mining Technique for IoT Metadata Aggregation", Elsevier Future Generation Computer Systems, Vol. 152, pp. 239-253 2024. DOI. 10.1016/j.future.2023.10.020. (IF 10.1).
3. R. Salama, F. Al-Turjman, "Sustainable Energy Production in Smart Cities", Sustainability, 2023. DOI. 10.3390/su152216052. (IF 3.9)
4. N. Saadallah, S. Alabady, F. Al-Turjman, "Energy-Efficient Cluster Head Selection via Genetic Algorithm", Al-Rafidain Engineering Journal (AREJ), Vol. 29, No. 1, 2024.
5. T. Mishra; M. kolhar; S. Mishra; H. Mohapatra; F. Al-Turjman, "Local Features Based Evidence Glossary for Generic Recognition of Handwritten Characters", Neural Computing and Applications, 2023. DOI.10.1007/s00521-023-09051-5. (IF 6.0).
6. P. Chithaluru; F. Al-Turjman; M. Kumar; S. Kumar, T. Stephan, "An Optimized Bio-inspired Localization Routing Technique for Sustainable IIoT Networks & Green Cities", Elsevier Sustainable Cities and Society,2023. DOI. 10.1016/j.scs.2023.104722. (IF 10.7).
7. B. Alex, D. Yedurkar, F. Al-Turjman, and T. Stephan, "An IoT based Novel Hybrid Seizure Detection

- Approach for Epileptic Monitoring”, IEEE Transactions on Industrial Informatics, 2023. DOI: 10.1109/TII.2023.3274913. (IF 10.08).
8. F. Al-Turjman, D. Deebak, “EEI-IoT: Edge-Enabled Intelligent IoT Framework for Early Detection of COVID-19 Threats”, *Sensors*, 2023, 23, 2995. <https://doi.org/10.3390/s23062995> (IF 3.9)
  9. G. Bojan, A. Rajasekaran, K. Kaliraj, Gopinath S, F. Al-Turjman, M. Kolhar, C. Altrjman, “Concerted Data Classification and Transmission Scheme for Identifying Discrete Observation Sequences in Wearable Sensor Applications”, *Sensors*, 2023. (IF 3.9)
  10. A. Ibrahim, A. Kibarer, F. Al-Turjman, S. Kaba, “Large-Scaled Detection of COVID-19 from X-ray Using Transfer Learning”, *International Journal of Imaging Systems and Technology*, 2023. DOI. 10.1002/ima.22904.(IF 2.2)
  11. A. Ibrahim, M. Ozsoz , F. Al-Turjman, “Crispr Biosensing And AI Driven Tools For Detection And Prediction of Covid-19”, *Journal of Experimental & Theoretical Artificial Intelligence*, vol. 35, no. 4, pp. 489-505, 2023. DOI. 10.1080/0952813X.2021.1952652.
  12. P. Akella, K. Rajagopal, F. Al-Turjman, “A Novel Hybrid Model for Automatic Diabetic Retinopathy Grading and Multi-Lesion Recognition Method Based on SRCNN & YOLOv3”, *International Journal of Nanotechnology*, Vol. 20, Nos. 5/6/7/8/9/10, pp. 615-643, 2023.
  13. G. Senthilkumar, F. Al-Turjman, R. Kumar, J. Ramakrishnan, “Diagnosing cardiovascular disease via intelligence in healthcare multimedia: a novel approach”, *International Journal of Nanotechnology*, Vol. 20,Nos. 1/2/3/4, pp.182–198, 2023.
  14. J. Subramani, A. M, A. Rajasekaran, F. Al-Turjman, “EPF-FDA: Efficient Pairing Free and Confidentiality Preserving Fog-Based Data Aggregation Scheme for WBANs”, *IEEE Instrumentation & Measurement Magazine*, 2022.
  15. A. Maria, J. Subramani, A. Rajasekaran, F. Al-Turjman, M. Kolhar, C. Altrjman, “Secure Key Managementbased Data Aggregation with Privacy and Confidentiality Preserving Scheme for Fog-Assisted WBANs”,*Human-centric Computing and Information Sciences*, 2022. (IF 6.5)
  16. F. Al-Turjman, D. Cacciagrano, F. Corradini, M. Marcozzi, G. Mazzante, L. Mostarda, E. Scala, and D. Sestili “Off-chain solutions for Blockchains: challenges and future directions”, *Security and Communication Networks*, 2022.
  17. P. Chithaluru, F. Al-Turjman, M. Kumar, T. Stephan, “Computational Intelligence Inspired Adaptive Opportunistic Clustering Approach for Industrial IoT Networks”, *IEEE Internet of Things Journal*, 2023. DOI. 10.1109/JIOT.2022.3231605. (IF 10.9).
  18. P. Chithaluru, F. Al-Turjman, M. Kumar, T. Stephan, “Energy-balanced Neuro-Fuzzy Dynamic Clustering Scheme for Green & Sustainable IoT based Smart Cities”, *Elsevier Sustainable Cities and Society*, 2023. DOI.10.1016/j.scs.2022.104366. (IF 10.7).
  19. A. Guru, B. Mohanta, H. Mohapatra, F. Al-Turjman, C. Altrjman, A. Yadav, “A Survey on Consensus Protocols and Attacks on Blockchain Technology”, *Applied Sciences*, vol. 13, no. 4, 2023. DOI. 10.3390/app13042604. (IF 2.76).
  20. M. Rana, K. Mahmood, M. Saleem, F. Al-Turjman, M. Kolhar, C. Altrjman, “Towards a Provably Secure Authentication Protocol for Fog-Driven IoT-Based Systems”, *Applied Sciences*, vol. 13, no. 3, 2023. DOI.10.3390/app13031424. (IF 2.8).
  21. A. Ibrahim, A. Kibarer, F. Al-Turjman, “Computer-aided Detection of Tuberculosis from Microbiological and Radiographic Images”, *Data Intelligence*, 2023. DOI. 10.1162/dint\_a\_00198.
  22. A. Mubarak, S. Serte, F. Al-Turjman, Z. Ameen, "Data Augmentation and Denoising of Computed Tomography (CT) Scan Images In Training Deep Learning Models For Rapid COVID-19 Detection", *Int. J. of Business Intelligence and Data Mining*, 2023.
  23. I. Irkham, A. Ibrahim, P. Pwadovi, F. Al-Turjman, Y. Hartati, “Smart Graphene-Based Electrochemical Nanobiosensor For Clinical Diagnosis: Review”, *Sensors*, vol. 23, no. 4, 2023. DOI. 10.3390/s23042240. (IF 3.9)

24. R. Lenka, H. Mohapatra, F. Al-Turjman and C. Altrjman, "A Review of Energy Saving Routing Schemes for WSN Assisted IoT Network", *International Journal of Emerging Electric Power Systems*, 2022. DOI.10.1515/ijeeps-2022-0104.
25. A. Ibrahim, C. Nwekwo, F. Al-Turjman, I. Irkham, Y. Hartati, "Current Technologies for Detection of COVID-19: Biosensors, Artificial Intelligence and Internet of Medical Things (IoMT): Review", *Sensors*, vol.23, no. 1, pp. 426, 2023. DOI. 10.3390/s23010426. (IF 3.9)
26. A. Mubarak, Z. Said, F. Al-Turjman, "A Multi-Decoder-Based Detection Transformer Model For Drone Detection", *IET Electrical Systems in Transportation*, 2023. DOI: 10.1049/els2.12067.
27. A. Hussain, F. Al-Turjman, "IoMT Cloud Task Scheduling Using AI", *Wireless Communications and Mobile Computing*, vol. 135, no. 2, pp. 1345-1369, 2023. (IF 2.14)
28. S. Rajeyyagari, S. Alahmari, F. Al-Turjman, "Davis Mayer Streebog Cryptographic Hash-Based Blockchain for Secure Transaction Management Using SDN in IIoT Applications", *Journal of Signal Processing Systems*, 2022. DOI. 10.1007/s11265-022-01825-9.
29. H. Rauf, J. Gao, A. Almadhor, A. Haider, Y. Zhang, F. Al-Turjman, "Multi population-based chaotic differential evolution for multi-modal and multi-objective optimization problems", *Applied Soft Computing*, vol. 132, no. 1, pp. 1-16, 2023. (IF 8.5).
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31. A. Maria, F. Al-Turjman, A. Sekar, "Blockchain-based Physically Secure and Privacy-Aware Anonymous Authentication Scheme for Fog-based VANETs", *IEEE Access*, vol. 11, no. 1, pp. 17138-17150, 2023. DOI.10.1109/ACCESS.2022.3230448. (IF 4.04).
32. F. Al-Turjman, M. Ivanovic, "Guest Editorial – Interactive and Innovative Technologies for Smart Education", *Computer Science and Information Systems*, vol. 19, no. 3, pp. vii–x, 2022. DOI. 10.2298/CSIS220300viiA.
33. D. Yedurkar, S. Metkar, F. Al-Turjman, T. Stephan, M. Kolhar, C. Altrjman, "A Novel Approach for Multichannel Epileptic Seizure Classification based on Internet of Things Framework using Critical Spectral Verge Feature Derived from Flower Pollination Algorithm", *Sensors*, 2022. DOI. 10.3390/s22239302. (IF3.9)
34. A. Mubarak, Z. Said, F. Al-Turjman, "Effect of Gaussian Filtered Images on Mask RCNN in Detection and Segmentation of Potholes in Smart Cities", *Mathematical Biosciences and Engineering*, vol. 20, no. 1, pp.283-295, 2023. (IF 2.2)
35. F. Al-Turjman, "Smart-city medium access for smart mobility applications in Internet of Things", *Wiley Transactions on Emerging Telecommunications Technologies*, vol. 33, no. 8, pp. 1-10, 2022. DOI. 10.1002/ett.3723.
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37. T. Stephan, F. Al-Turjman, M. Kolhar, S. Alturjman, "IoMT-Based Automated Diagnosis of Autoimmune Diseases Using Machine Learning for Sustainable Smart Cities", *Sustainability*, vol. 14, no. 21, pp. 13891, 2022. DOI. 10.3390/su142113891. (IF 3.8)
38. H. Mouftah, A. Radwan, M. Rehmani, F. Al-Turjman, and B. Vaidya, "Editorial: Prospects of energy and mobility-Connected and autonomous electric vehicles for sustainable smart cities", *Frontiers in Energy Research*, 2022. DOI. 10.3389/fenrg.2022.972084.
39. A. Mubarak, Z. Said, C. Altrjman, F. Al-Turjman, "Computer-Vision-Based Statue Detection with Gaussian Smoothing Filter and EfficientDet", *Sustainability*, 2022. DOI. 10.3390/su141811413.
40. F. Al-Turjman, and I. Baali, "Machine learning for wearable IoT-based applications: A survey", *Wiley Transactions on Emerging Telecommunications Technologies*, vol. 33, no. 8, pp. 1-16, 2022. DOI.

10.1002/ett.3635. (Top Downloaded Paper)

41. A. Sekar, A. Maria; F. Al-Turjman; C. Altrjman; L. Mostarda, "ABRIS: Anonymous Blockchain based Revocable and Integrity preservation scheme for Vehicle to Grid Network", *Energy Reports*, vol. 8, pp. 9331-9343, 2022. DOI. 10.1016/j.egy.2022.07.064. (IF 6.9).
42. A. Rejeb, K. Rejeb, A. Abdollahi, F. Al-Turjman, H. Treiblmaier, "The Interplay between the Internet of Things and Agriculture: A Bibliometric Analysis and Research Agenda", *Elsevier Internet of Things*, vol. 19, 2022. DOI. 10.1016/j.iot.2022.100580 (IF 5.71)
43. S. Punitha, F. Al-Turjman, and T. Stephan, "A Novel e-Healthcare Diagnosing System for COVID-19 via Whale Optimization Algorithm", *Journal of Experimental and Theoretical Artificial Intelligence*, 2022. DOI.10.1080/0952813X.2022.2125079. (IF 2.4).
44. F. Al-Turjman, A. Hussain, S. Alturjman, C. Altrjman, "Vehicle Price Classification and Prediction Using Machine Learning in the IoT Smart Manufacturing Era", *Sustainability*, vol. 14, no. 15, 2022. DOI. 10.3390/su14159147. (IF 3.8)
45. A. Hussain, F. Al-Turjman, "Hybrid Genetic Algorithm for IOMT-Cloud Task Scheduling", *Wireless Communications and Mobile Computing*, 2022. DOI. 10.1155/2022/6604286. (IF 2.14)
46. O. Babatomiwa, F. Al-Turjman, C. Nadire, "Interactive and innovative technologies for smart education", *Computer Science and Information Systems*, 2022. DOI. 10.2298/CSIS2108170270. (IF 1.17)
47. F. Al-Turjman, D. Deebak, "Synonym-Based Multi-Keyword Ranked Search with Secure k-NN in 6G Network", *IET Networks*, 2022. DOI: 10.1049/ntw2.12050.
48. M. Saleh, Z. Ameen, C. Altrjman, F. Al-Turjman, "Computer-Vision-Based Statue Detection with Gaussian Smoothing Filter and EfficientDet", *Sustainability*, vol. 14, no. 18, pp. 11413, 2022. DOI. 10.3390/su141811413. (IF 3.8)
49. K. Alharbia, S. Yasmin, S. Farooq, H. Waqas, M. Alwetaishi, S. Khan, F Al-Turjman, S. Elattar, M. Khan & A. Galal, "Thermal outcomes of Williamson pseudo-plastic nanofluid with microorganisms due to the heated Riga surface with bio-fuel applications", *Waves in Random and Complex Media*, 2022. DOI.10.1080/17455030.2022.2094495. (IF 4.8)
50. A. Hussain, F. Al-Turjman, "IoMT-Cloud Task Scheduling Using AI", *CMES-Computer Modeling in Engineering & Sciences*, vol. 135, no. 2, 2023. DOI: 10.32604/cmes.2023.022783.
51. B. Şekeroğlu, K. Dimililer, Y. K. Ever, F. Al-Turjman, "Comparative Evaluation and Comprehensive Analysis of Machine Learning Models for Regression Problems", *Data Intelligence Journal*, vol. 4, no. 3, pp.620–652, 2022. DOI. 10.1162/dint\_a\_00155.
52. P. Chithaluru, F. Al-Turjman, T. Stephan, M. Kumar, and C. Hsu, "Improved Elman Back Propagation Algorithm for Validating Digital Signatures in VANET", *Computers, Materials & Continua*, 2022. (IF 4.9).(Accepted).
53. A. Gopu, F. Al-Turjman, K. Thirugnanasambandam, R. Sekaran, R. Patan, "Energy Efficient Virtual Machine Placement in Distributed Cloud using NSGA-III Algorithm", *Big Data Research*, 2021. (Accepted).(IF 3.6).
54. M. Gupta, R. Kumar, S. Sharma, F. Al-Turjman, C. Hsu, "A comparative analysis of COVID-19 Infected cases with GDP and Happiness Indices based on World Happiness Report using Machine Learning", *Intelligent Automation & Soft Computing*, 2022. (Accepted).
55. H. Mouftah, A. Radwan, M. Rehmani, F. Al-Turjman, B. Vaidya, "Editorial, Prospects of Energy and Mobility - Connected and Autonomous Electric Vehicles for Sustainable Smart Cities", *Frontiers in Energy Research*, 2022. DOI: 10.3389/fenrg.2022.972084. (IF 3.8)
56. K. Dimililera, H. Teimouriana, and F. Al-Turjman, "Radio Galaxies Classification System using Machine Learning Techniques in the IoT Era", *Journal of Experimental & Theoretical Artificial Intelligence*, 2022. DOI.10.1080/0952813X.2022.2080277. (IF 2.4).
57. F. Karim, M. Shah, H. Khattak, Z. Ameer, U. Shoaib, H. Tayyab, F. Al-Turjman, "Towards an effective

model for lung disease classification: Using Dense Capsule Nets for early classification of lung diseases", *Applied Soft Computing*, vol. 124, no. 109077, 2022. DOI. 10.1016/j.asoc.2022.109077. (IF 6.7)

58. T. Stephan, F. Al-Turjman, M. Ravishankar, S. Punitha, "Machine Learning Analysis on the Impacts of COVID-19 on India's Renewable Energy Transitions and Air Quality", *Sustainable Energy Technologies and Assessments*, 2022. DOI. 10.1007/s11356-022-20997-2. (IF 5.4)

59. R. Lenka, M. Kolhar, H. Mohapatra, F. Al-Turjman, and C. Altrjman, "Cluster-Based Routing Protocol with Static Hub (CRPSH) for WSN-Assisted IoT Networks", *Sustainability*, 2022. DOI. 10.3390/su14127304. (IF 3.6).

60. S. Jabbar, F. Al-Turjman, "VABLOCK: A blockchain-based secure communication in V2V network using icn network support technology", *Microprocessors and Microsystems*, 2022. DOI. 10.1016/j.micro.2022.104569. (IF 2.1)

61. S. Serte, M. Dirik, F. Al-Turjman, "Deep Learning Models for Covid-19 Detection", *Sustainability*, 2022. DOI. 10.3390/su14105820. (IF 2.9).

62. M. Narendra, M. Valarmathi, L. Anbarasi, V. Sarobin, F. Al-Turjman, "High Embedding Capacity in 3D Model using Intelligent Fuzzy based Clustering", *Neural Computing and Applications*, 2022. DOI. 10.1007/s00521-022-07404-0. (IF 5.6).

63. V. Jain, F. Al-Turjman, G. Chaudhary, D. Nayar, V. Gupta, A. Kumar, "Video captioning: a review of theory, techniques and practices", *Multimedia Tools and Applications*, 2022. DOI. 10.1007/s11042-021-11878-w.

64. F. Shah, M. Raja, F. Al-Turjman, F. Zaman, and X. Yang, "Evolutionary Heuristic Computing Paradigm for 2D-DOA Estimation along Circular Array", *Wireless Communications and Mobile Computing*, 2022. DOI.10.1155/2022/4851364.

65. S. Aziz, L. Kolsi, I. Ahmad, F. Al-Turjman, M. Omri, and S. Khan, "Thermal stability and bioconvection investigation for couple stress nanofluid due to a three-dimensional accelerated frame", *Waves in Random and Complex Media*, 2022. DOI. 10.1080/17455030.2022.2063989. (IF 4.85)

66. A. Rajasekaran, M. Azees, F. Al-Turjman, "A Comprehensive Survey on Blockchain Technology", *Sustainable Energy Technologies and Assessments*, vol. 52, no. A, 2022. DOI. 10.1016/j.seta.2022.102039. (IF5.3)

67. N. Bacanin, M. Zivkovic, F. Al-Turjman, K. Venkatachalam, P. Trojovský, I. Strumberger, T. Bezdana, "Hybridized Sine Cosine Algorithm with Convolutional Neural Networks Dropout Regularization Application", *Scientific Reports*, 2022. DOI. 10.1038/s41598-022-09744-2. (IF 5.1)

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69. H. Khattak, R. Fazal, M. Shah, H. Rauf, F. Al-Turjman, "Achieving Data Privacy for Decision Support Systems in Times of Massive Data Sharing", *Cluster Computing*, 2022. DOI. 10.1007/s10586-021-03514-x.(IF 3.45).

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72. A. Raza; M. Shah; H. Khattak; C. Maple; F. Al-Turjman; H. Rauf, " Collaborative multi-agents in dynamic industrial internet of things using deep reinforcement learning", *Environment, Development and Sustainability*, 2022. DOI. 10.1007/s10668-021-01836-9. (IF 3.2).

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74. H. Abubakar, Z. Ameen, C. Altrjman, S. Alturjman, A. Mubarak, F. Al-Turjman, "Breast Invasive Ductal Casinoma (IDC) Detection using AlexNet and ResNet", *NEU Journal for Artificial Intelligence and Internet of Things*, vol. 1, no. 1, pp. 48-53, 2022.
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81. H. Alkatrani, M. Ilyas, S. Alyassri, A. Nahar, F. Al-Turjman, J. Rasheed, . Alshahrani, and B. Al-Kasasbeh, "Polygon Number Algorithm for Peak-to-Average Ratio Reduction of Massive 5G Systems Using Modified Partial Transmit Sequence Scheme", *Wireless Communications and Mobile Computing*, 2021. DOI.10.1155/2021/7498240. (IF 2.3).
82. N. Bacanin, T. Bezdán, F. Al-Turjman, T. Rashid, "Artificial Flora Optimization Algorithm with Genetically Guided Operators for Feature Selection and Neural Network Training", *International Journal of Fuzzy Systems*, 2021. DOI.10.1007/s40815-021-01191-x. (IF 4.7).
83. A. Kumar, S. Kolnure, K. Abhishek, F. Al-Turjman, P. Nerurkar, M. Ghalib, A. Shankar, "Advanced deep learning algorithms for infectious disease modeling using clinical data: A Case Study on COVID19", *Current Medical Imaging*, vol. 18, pp. 574-586, 2022. DOI.10.2174/1573405617666210908125911.
84. S. Mohammed, S. Thaseen, A. Singhanian, F. Al-Turjman, R. Patan, L. Mostarda, "Cybersecurity management approach for the Credit-Card Fraud Detection using Machine Learning", *Computers, Materials& Continua*, 2020. (IF 4.9). (Accepted).
85. M. Al-Rawajbeh, V. Sayenkob, I. Al-Hadid, F. Al-Turjman, L. Ramasamy, "Evaluation of Functional Maturity for a Network Information Service Design & Case Analysis", *International Journal of Ad Hoc and Ubiquitous Computing*, vol. 38, no. 1-3, pp. 3-16, 2021. DOI. 10.1504/IJAHUC.2021.119081.
86. D. Deebak, F. Al-Turjman, "A Robust and Distributed Architecture for 5G-Enabled Networks in the Smart Blockchain Era", *Elsevier Computer Communications Journal*, vol. 181, no. 1, pp. 293-308, 2022. (IF 3.16).
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4. M. Gupta, R. Jain, A. Solanki and F. Al-Turjman, editors of a book titled: “Cancer Prediction for Industrial IoT 4.0: A Mining and Machine Learning Perspective” Published with Taylor and Francis, CRC, New York, 2021. ISBN 9781032028781.
5. F. Al-Turjman, and D. B. Deebak, editors of a book titled: “Sustainable Networks in Smart Grid”, Published with Elsevier, France, 2021. ISBN: 9780323856263.
6. F. Al-Turjman, S. Yadav, M. Kumar, V. Yadav, T. Stephan, editors of a book titled: “Transforming Management with AI, Big-Data and IoT”, Published with Springer, Switzerland AG, 2021. ISBN 978-3030867485.
7. F. Al-Turjman, A. Nayyar, editors of a book titled: “Machine Learning for Critical Internet of Medical Things - Applications and Use Cases”, Published with Springer, Switzerland AG, 2021. ISBN 978-3030809270.
8. F. Al-Turjman, M. Kumar, T. Stephan, A. Bhardwaj, editors of a book titled: “Evolving Role of AI and IoMT in the Healthcare Market”, Published with Springer, Switzerland AG, 2021. ISBN 978-3030820787.
9. F. Al-Turjman, A. Nayyar, A. Devi, P. Shukla, editors of a book titled: “Intelligence of Things: AI-IoT Based Critical-Applications and Innovations”, Published with Springer, Switzerland AG, 2021. ISBN 978-3-030-82799-1.
10. E. Ever, F. Al-Turjman, editors of a book titled: “Forthcoming Networks and Sustainability in the IoT Era”, Published with Springer, Switzerland AG, 2021. ISBN 978-3-030-69430-2.
11. F. Al-Turjman, single editor of a book titled: “Real-Time Intelligence for Heterogeneous Networks - Applications, Challenges, and Scenarios in IoT HetNets”, Published with Springer, Switzerland AG, 2021. ISBN 978-3-030-75613-0.



12. F. Al-Turjman, and U. Hamid, editors of a book titled: "Towards Connected and Autonomous Vehicle Highway: Technical, Security and Ethical Challenges", Published with Springer, Switzerland AG, 2021. ISBN 978-3-030-66041-3.
13. F. Al-Turjman, single editor of a book titled: "Wireless Medical Sensor Networks for IoT-based eHealth", Published with IET press, UK, 2020. ISBN-13: 978-1-83953-056-2.
14. F. Al-Turjman, single author of a book titled: "AI-powered IoT for COVID-19", Published with Taylor and Francis, CRC, New York, 2021. ISBN-13: 978-0367566746.
15. F. Al-Turjman, single author of a book titled: "Artificial Intelligence and Machine Learning for COVID-19", Published with Springer, Switzerland AG, 2020. ISBN 978-3-030-60187-4.
16. F. Al-Turjman, A. Devi, A. Nayyar, editors of a book titled: "Emerging Technologies for Battling Covid-19 - Applications and Innovations", Published with Springer, Switzerland AG, 2020. ISBN 978-3-030-60038-9.
17. F. Al-Turjman, and D. B. Deebak, editors of a book titled: "Security in IoT Social Networks", Published with Elsevier, France, 2020. ISBN 9780128215999.
18. F. Al-Turjman, single author of a book titled: "Smart-Grid in IoT-enabled Spaces – The Road to Intelligence in Power", Published with Taylor and Francis, CRC, New York, 2020. ISBN 978-0367517885.
19. F. Al-Turjman, and G. N. Balaji, editors of a book titled: "Advanced Controllers for Smart Cities", Published with Springer, Switzerland AG, 2020. ISBN 978-3-030-48538-2.
20. F. Al-Turjman, single editor of a book titled: "Drones in Smart Cities: Security & Performance", published with Elsevier, France, 2020. ISBN 9780128199725.
21. F. Al-Turjman, single editor of a book titled: "Trends in Cloud-based IoT", published with Springer, Switzerland AG, 2020. ISBN 978-3-030-40036-1.
22. F. Al-Turjman, single editor of a book titled: "Unmanned Aerial Vehicles in Smart Cities", Published with Springer, Switzerland AG, 2020. ISBN 978-3-030-38711-2.
23. F. Al-Turjman, single author of a book titled: "The Cloud in IoT-enabled Spaces", published with Taylor and Francis, CRC, New York, 2019. ISBN 9780367278144
24. F. Al-Turjman & M. Imran, Edited book: "IoT Technologies in Smart-Cities: From Sensors to Big Data, Security and Trust", published with IET press, UK, 2020. ISBN-13: 978-1-78561-869-7.
25. F. Al-Turjman, single author of a book titled: "Drones in IoT-enabled Spaces", Published with Taylor and Francis, CRC, New York, 2019. ISBN 9780367266387.
26. F. Al-Turjman, single author of a book titled: "Internet of Nano-Things & Wireless Body Area Networks (WBAN)", Published with Taylor and Francis, CRC, New York, 2019. ISBN 9780367198527.
27. F. Al-Turjman, single editor of a book titled: "Smart-cities: Performability, Cognition & Security", Published with Springer, Switzerland AG, 2019. ISBN 978-3-030-14717-4.
28. F. Al-Turjman, single author of a book titled: "Security in IoT-enabled Spaces", Published with Taylor and Francis, CRC, New York, 2019. ISBN: 9780367111236.
29. F. Al-Turjman, single editor of a book titled: "Artificial Intelligence in IoT", Published with Springer, Switzerland AG, 2019. ISBN: 978-3-030-04110-6
30. F. Al-Turjman, single author of a book titled: "Intelligence in IoT-enabled Smart-Cities", Published with Taylor and Francis, CRC, New York, 2019. ISBN: 9781138316843.
31. F. Al-Turjman, single editor of a book titled: "Edge Computing: From Hype to Reality", Published with Springer, Switzerland AG, 2019. ISBN: 978-3-319-99060-6.
32. F. Al-Turjman, single editor of a book titled: "Performability in Internet of Things", Published with Springer, Switzerland AG, 2018. ISBN 978-3-319-93556-0.
33. F. Al-Turjman, single author of a book titled: "Smart Things & Femtocells: From Hype to Reality", Published with Taylor and Francis, CRC, New York, 2018. ISBN 9781138593893.

34. 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.
35. F. Al-Turjman & A. Radwan, Edited eBook: "Internet of Things: Applications and Paradigms", to be published with Avid Science, Berlin, Germany, 2018.
36. 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.
37. 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.
38. A. Devi, S. Nadar, R. Jain, F. Al-Turjman (2021), "Use of Artificial Intelligence in Pharmacovigilance for Social Media Network", a book chapter in a book titled "Leveraging Artificial Intelligence in Global Epidemics", Published with Elsevier, France, 2021.
39. F. Al-Turjman (2019), "Edge Computing: From Hype to Reality Preface", a book chapter in a book titled "Edge Computing: From Hype to Reality", Published with Springer, Switzerland AG, 2019. ISBN: 978-3-319-99060-6.
40. F. Al-Turjman (2019), a book chapter in a book titled "Transportation and Power Grid in Smart Cities: Communication Networks and Services", published by John Wiley, UK, 2018. Eds. H. T. Mouftah, M. Erol-Kantarci, M. H. Rehmani. ISBN: 978-1-119-36008-7.
41. F. Al-Turjman, C. Altrjman, (2019) "Smart Homes in the Crowd of IoT-based Cities". In: F. Al-Turjman (Eds), Intelligence in IoT-enabled Smart Cities. Taylor and Francis, CRC, New York, 2019.
42. F. Al-Turjman, C. Altrjman, (2019) "Energy Consumption Monitoring in IoT-based Smart Cities". In: F. Al-Turjman (Eds), Intelligence in IoT-enabled Smart Cities. Taylor and Francis, CRC, New York, 2019.
43. F. Al-Turjman, S. Alturjman, (2019) "Intelligent UAVs for Multimedia Delivery in Smart-Cities' Applications". In: F. Al-Turjman (Eds), Intelligence in IoT-enabled Smart Cities. Taylor and Francis, CRC, New York, 2019.
44. F. Al-Turjman, S. Alturjman, (2019) "Intelligent Positioning for Precision Agriculture (PA) in Smart-cities". In: F. Al-Turjman (Eds), Intelligence in IoT-enabled Smart Cities. Taylor and Francis, CRC, New York, 2019.
45. F. Al-Turjman, S. Alturjman, (2019) "Intelligent IoT for Plant Phenotyping in Smart-cities' Agriculture". In: F. Al-Turjman (Eds), Intelligence in IoT-enabled Smart Cities. Taylor and Francis, CRC, New York, 2019.
46. Al-Turjman F., Ever E., (2019) Performability in Internet of Things Preface. In: Al-Turjman F. (eds) "Performability in Internet of Things", Published with Springer, Switzerland AG, 2018. ISBN 978-3-319-93556-0.
47. Ulusar U.D., Celik G., Turk E., Al-Turjman F., Guvenc H. (2019) Practical Performability Assessment for ZigBee-Based Sensors in the IoT Era. In: Al-Turjman F. (eds) Performability in Internet of Things. EAI/Springer Innovations in Communication and Computing. Springer, Switzerland AG, 2019. ISBN 978-3-319-93556-0.
48. 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.
49. F. Al-Turjman, "Digital Convergence" track of the "Future Information Technology, Application, and Service", Springer 2012. ISBN: 978-94-007-5063-0

## 7.5. Articles Published in National Peer-Reviewed Journals

## 8. Art and Design Activities

### 9. Projects

- 2023- Present: NEU Digital Campus Project, Near East University, Northern Cyprus
- 2023- Present: AI-Instructor Project, Ai Prof. DUX, Near East University, Northern Cyprus
- 2022- Present: Patient Health Tracking Project, Near East University, Northern Cyprus
- 2021-2023: VELENA Project, Near East University, Northern Cyprus
- 2021-2022: AI and IoT in detecting the appropriate mask usage, Joint project between Near East University, Northern Cyprus and India
- 2021-2022: NEU Smart Student Information System, Near East University, Northern Cyprus
- 2021-2022: Blockchain-based Students Certificates Project, Near East University, Northern Cyprus
- 2020-2022: NEU Attend APP Project, Near East University, Northern Cyprus
- 2020-2022: NEU COVID-19 Project, Near East University, Northern Cyprus
- 2016-20: 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 in Smart cities.
- 2015-17: 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.
- 2015-17: 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.
- 2014-18: 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/IoT.
- 2013-18: 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 Sensor 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.

## **10. Administrative Responsibilities**

- Advisor to the Chairman of the Board of Trustees
- Associate Dean for Research, Faculty of Engineering
- Head of Department of Artificial Intelligence Engineering
- Head of Department of Software Engineering
- Head of Department of Information Systems Engineering

## **11. Memberships in Scientific and Professional Organizations**

- 2011 - 2014: Sprouts Sensor Platform Team
- 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)

## 12. Awards

- 2022: Lifetime golden-award of Dr. Suat Günsel from Near East University, Cyprus
- 2022: Best professor award from Near East University, Cyprus
- 2022: Top Researcher Award from Near East University, Cyprus
- 2021: Best professor award from Near East University, Cyprus
- 2021: Top Researcher Award from Near East University, Cyprus
- 2020: Best Research Paper Award from Elsevier Internet of Things Journal
- 2019: Top Downloaded Paper from Wiley Transactions on Emerging Telecommunications Technologies Journal.
- 2019: Best Research Paper Award from Elsevier Computer Communication Journal
- 2018: Top Researcher Award from Antalya Bilim University, Turkey.
- 2018: Authored Book publication award from Antalya Bilim University, Turkey.
- 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.

## 13. Undergraduate and Graduate Courses Taught in the Last Two Years

Academic Year	Semester	Course Name	Weekly Hours		Number of Students
			Theoretical	Practical	
2021-2022	Fall	AI PRINCIPLES AND TECHNIQUES	3		20
	Fall	AI AND IOT	3		20
	Spring	PATTERN RECOGNITION	3		5
	Spring	AI AND CLOUD COMPUTING	3		20
2022-2023	Fall	AI PRINCIPLES AND TECHNIQUES	3		20
	Fall	AI AND IOT	3		20
	Spring	AI AND BLOCKCHAIN	3		20

	Spring	AI AND CLOUD COMPUTING	3		20
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