

Academic Resume



Tawfiq Hasanin

Assistant Professor, Information Systems Department

Profile: • Respectful academic advisor • Curriculum developer • Engaging public speaker • Respected referee in various journals and conferences • Accomplished researcher in machine learning • Innovative thinker • Inspiring lecturer • Personable and approachable • Senior project discussion committee member ••••

Contact Information.

Building 31, Room 103, Add. Faculty of Computing and Information Technology - Males' Section, Alborj St.
King Abdulaziz University Jeddah 21589, thasanin@kau.edu.sa.

Highest Degree.

2019, Computer Science, Data Mining and Machine Learning with Big Data, Florida Atlantic University, USA.

Academic and Professional Experiences.

1. **2020 - 2022**
Leader, FCIT Student Competition Committee, , .
2. **2020 - 2021**
Member, IS dept. Postgraduate Focused Curriculum Committee, , .
3. **2019 - Present**
Assistant Professor, Jeddah, King Abdulaziz University.
4. **2016 - 2017**
Teacher Assistant, Boca Raton, Florida, United States, Dept. of Electrical Engineering and Computer Science, College of Engineering and Computer Science, Florida Atlantic University.
5. **2011 - 2019**
Lecturer, Jeddah, King Abdulaziz University.
6. **2002 - 2011**
Demonstrator, Jeddah, Teacher Training College.
7. **2000 - 2002**
Business Analyst and Web Developer, Saudi Arabia, Platinum Tech.
8. **2000 - 2001**
Consultant, Saudi Arabia, Takamolat Information Technology.

Research Interests.

Big Data Analytics, Pattern Recognition, Machine Learning, Deep Learning, Data Sampling Techniques.

Teaching Interests.

Distributed Systems, Enterprise Architecture, Decision Support Systems and Theory, Information Security, Machine Learning and Data Mining, Neural Networks and Deep Learning, Big Data Analytics, Modeling and Simulation.

Last Profile Update: April 24, 2024

Certifications and Trainings.

1. Course: Realizing the Potential of Researchers Workshop: Researcher Development Framework (RDF) - FCIT.
2. Reviewing in the Sciences: Web of Science Academy Course.
3. Apple Certified Trainer in App Development with Swift - Apple.
4. Good Citation Behavior: Web of Science Academy Course.
5. AI: Current Implications and Future Directions - King Abdulaziz University Winter Program 2021.
6. An Introduction to Peer Review: Web of Science Academy Course.
7. Self-quality Program in Social Quality - Development and Training unit at FCIT..
8. Enhancing Students Interaction - Center for Teaching and Learning Development KAU.
9. Designing Effective Assessment - Center for Teaching and Learning Development KAU.
10. Self-quality Program in Professional Quality - Development and Training unit at FCIT.
11. Confidence is the foundation of leadership Workshop - Forum of Heads and Supervisors of Scientific Departmentsæ KAU.
12. Workshop on Activating the Initiative to Institutionalize Collective Responsibility in Saudi Universities.
13. English Language Diploma - Aspect International Language Academies, Auckland, New Zealand.
14. English Language Diploma, Center for Multilingual Multicultural Studies (CMMS), University of Central Florida (UCF), Orlando , Florida, United States.

Social, Scientific and Professional Affiliation.

1. 2006-, Member, IEEE.

Publications.

1. Osama Bassam J. Rabie, Shitharth Selvarajan, Tawfiq Hasanin, Abdulrhman M. Alshareef, C. K. Yogesh, Mueen Uddin, "A Novel Iot Intrusion Detection Framework Using Decisive Red Fox Optimization And Descriptive Back Propagated Radial Basis Function Models", Scientific Reports, vol: 14, 2024.
DOI: [10.1038/s41598-024-51154-z](https://doi.org/10.1038/s41598-024-51154-z)
2. Osama Bassam J. Rabie, Shitharth Selvarajan, Tawfiq Hasanin, Gouse Baig Mohammed, Abddulrhman M. Alshareef, Mueen Uddin, "A Full Privacy-Preserving Distributed Batch-Based Certificate-Less Aggregate Signature Authentication Scheme For Healthcare Wearable Wireless Medical Sensor Networks (Hwmsns)", International Journal Of Information Security, 2023.
DOI: [10.1007/s10207-023-00748-1](https://doi.org/10.1007/s10207-023-00748-1)
3. Amani Abdulrahman Albraikan, Majdi Khalid, Nuha Alruwais, Tawfiq Hasanin, Ashit Kumar Dutta, Heba Mohsen, Mohammed Rizwanullah, Sara Saadeldeen Ibrahim, "Automated Red Palm Weevil Detection Using Gorilla Troops Optimizer With Deep Learning Model", Ieee Access, 2023.
4. Olfat M. Mirza, Aisha Alsobhi, Tawfiq Hasanin, Mohamad Khairi Ishak, Faten Khalid Karim, Samih M. Mostafa, "Computer Aided Diagnosis For Gastrointestinal Cancer Classification Using Hybrid Rice Optimization With Deep Learning", Ieee Access, vol: 11, pp. 76321-76329, 2023.
DOI: [10.1109/ACCESS.2023.3297441](https://doi.org/10.1109/ACCESS.2023.3297441)
5. Yi-Chia Lin, Almuhammad Sulaiman Alorfi, Tawfiq Hasanin, Mahendran Arumugam, Roobaea Alroobaea, Majed Alsafyani, Wael Y. Alghamdi, "Water Agricultural Management Based On Hydrology Using Machine Learning Techniques For Feature Extraction And Classification", Acta Geophysica, 2023.
DOI: [10.1007/s11600-023-01082-9](https://doi.org/10.1007/s11600-023-01082-9)
6. Tawfiq Hasanin, Hariprasath Manoharan, Hassan A. Alterazi, Gautam Srivastava, Shitharth Selvarajan, Jerry Chun-Wei Lin, "Mathematical Approach Of Fiber Optics For Renewable Energy Sources Using General Adversarial Networks", Frontiers In Ecology And Evolution, vol: 11, 2023.
DOI: [10.3389/fevo.2023.1132678](https://doi.org/10.3389/fevo.2023.1132678)
7. Tawfiq Hasanin, Pravin R. Kshirsagar, Hariprasath Manoharan, Sandeep Singh Sengar, Shitharth Selvarajan, Suresh Chandra Satapathy, "Exploration Of Despair Eccentricities Based On Scale Metrics With Feature Sampling Using A Deep Learning Algorithm", Diagnostics, vol: 12, pp. 2844, 2022.
DOI: [10.3390/diagnostics12112844](https://doi.org/10.3390/diagnostics12112844)
8. Tawfiq Hasanin, "A Spatio-Demographic Analysis Over Twitter Data Using Artificial Neural Networks", Iemis 2022: 3rd International Conference On Emerging Technologies In Data Mining And Information Security, 2022.
9. Shitharth Selvarajan, Hariprasath Manoharan, Tawfiq Hasanin, Raed Alsini, Mueen Uddin, Mohammad Shorfuzzaman, Abdulmajeed Alsufyani, "Biomedical Signals For Healthcare Using Hadoop Infrastructure With Artificial Intelligence And Fuzzy Logic Interpretation", Applied Sciences, vol: 12, pp. 5097, 2022.
DOI: [10.3390/app12105097](https://doi.org/10.3390/app12105097)
10. Shahanaz Ayub, R. Jagadeesh Kannan, Shitharth S, Raed Alsini, Tawfiq Hasanin, Choragudi Sasidhar, Kuruva Lakshmana, "Lstm-Based Rnn Framework To Remove Motion Artifacts In Dynamic Multicontrast Mr Images With Registration Model", Wireless Communications And Mobile Computing, vol: 2022, pp. 1-12, 2022.
DOI: [10.1155/2022/5906877](https://doi.org/10.1155/2022/5906877)
11. Nawaf Alhebaishi, Abdulrhman M. Alshareef, Tawfiq Hasanin, Raed Alsini, Gyanendra Prasad Joshi, Seongsoo Cho, Doo Ill Chul, "Soft Computing Based Metaheuristic Algorithms For Resource Management In Edge Computing Environment", Computers, Materials & Continua, vol: 72, pp. 5233-5250, 2022.
DOI: [10.32604/cmc.2022.025596](https://doi.org/10.32604/cmc.2022.025596)

Publications.

12. Alaa Khadidos, Adil Khadidos, Olfat M. Mirza, Tawfiq Hasanin, Wegayehu Enbeyale, Abdulsattar Abdullah Hamad, Fahd Abd Algalil, "Evaluation Of The Risk Of Recurrence In Patients With Local Advanced Rectal Tumours By Different Radiomic Analysis Approaches", Applied Bionics And Biomechanics, vol: 2021, pp. 1-9, 2021.
DOI: [10.1155/2021/4520450](https://doi.org/10.1155/2021/4520450)
13. Tawfiq Hasanin, Aisha Alsobhi, Adil Khadidos, Ayman Qahmash, Alaa Khadidos, Gabriel Ayodeji Ogunmola, Fahd Abd Algalil, "Efficient Multiuser Computation For Mobile-Edge Computing In Iot Application Using Optimization Algorithm", Applied Bionics And Biomechanics, vol: 2021, pp. 1-12, 2021.
DOI: [10.1155/2021/9014559](https://doi.org/10.1155/2021/9014559)
14. Tawfiq Hasanin, Taghi M Khoshgoftaar, Richard A Bauder, "Experimental Studies On The Impact Of Data Sampling With Severely Imbalanced Big Data", pp. 1-32, 2020.
DOI: [10.1201/9781003034971-1](https://doi.org/10.1201/9781003034971-1)
15. Tawfiq Hasanin, Taghi M. Khoshgoftaar, Joffrey L. Leevy, Richard A. Bauder, "Investigating Class Rarity In Big Data", Journal Of Big Data, vol: 7, 2020.
DOI: [10.1186/s40537-020-00301-0](https://doi.org/10.1186/s40537-020-00301-0)
16. Tawfiq Hasanin, Taghi M. Khoshgoftaar, Joffrey Leevy, Naeem Seliya, "Investigating Random Undersampling And Feature Selection On Bioinformatics Big Data", 2019 Ieee Fifth International Conference On Big Data Computing Service And Applications (Bigdataservice), pp. 346-356, 2019.
DOI: [10.1109/BigDataService.2019.00063](https://doi.org/10.1109/BigDataService.2019.00063)
17. Tawfiq Hasanin, Taghi M. Khoshgoftaar, Joffrey L. Leevy, Naeem Seliya, "Examining Characteristics Of Predictive Models With Imbalanced Big Data", Journal Of Big Data, vol: 6, 2019.
DOI: [10.1186/s40537-019-0231-2](https://doi.org/10.1186/s40537-019-0231-2)
18. Tawfiq Hasanin, Taghi M. Khoshgoftaar, Joffrey L. Leevy, Richard A. Bauder, "Severely Imbalanced Big Data Challenges: Investigating Data Sampling Approaches", Journal Of Big Data, vol: 6, 2019.
DOI: [10.1186/s40537-019-0274-4](https://doi.org/10.1186/s40537-019-0274-4)
19. Tawfiq Hasanin, Taghi M. Khoshgoftaar, Joffrey L. Leevy, "A Comparison Of Performance Metrics With Severely Imbalanced Network Security Big Data", 2019 Ieee 20th International Conference On Information Reuse And Integration For Data Science (Iri), pp. 83-88, 2019.
DOI: [10.1109/IRI.2019.00026](https://doi.org/10.1109/IRI.2019.00026)
20. Tawfiq Hasanin, Taghi M. Khoshgoftaar, "The Effects Of Random Undersampling With Simulated Class Imbalance For Big Data", 2018 Ieee International Conference On Information Reuse And Integration For Data Science (Iri), pp. 70-79, 2018.
DOI: [10.1109/IRI.2018.00018](https://doi.org/10.1109/IRI.2018.00018)
21. Richard A Bauder, Taghi M Khoshgoftaar, Tawfiq Hasanin, "Data Sampling Approaches With Severely Imbalanced Big Data For Medicare Fraud Detection", 2018 Ieee 30th International Conference On Tools With Artificial Intelligence (Ictai), pp. 137-142, 2018.
DOI: [10.1109/ICTAI.2018.00030](https://doi.org/10.1109/ICTAI.2018.00030)
22. Richard A Bauder, Taghi M Khoshgoftaar, Tawfiq Hasanin, "An Empirical Study On Class Rarity In Big Data", 2018 17th Ieee International Conference On Machine Learning And Applications (Icmla), pp. 785-790, 2018.
DOI: [10.1109/ICMLA.2018.00125](https://doi.org/10.1109/ICMLA.2018.00125)
23. Aaron N. Richter, Taghi M. Khoshgoftaar, Sara Landset, Tawfiq Hasanin, "A Multi-Dimensional Comparison Of Toolkits For Machine Learning With Big Data", 2015 Ieee International Conference On Information Reuse And Integration (Iri), pp. 1-8, 2015.
DOI: [10.1109/IRI.2015.12](https://doi.org/10.1109/IRI.2015.12)

Publications.

24. Sara Landset, Taghi M. Khoshgoftaar, Aaron N. Richter, Tawfiq Hasanin, "A Survey Of Open Source Tools For Machine Learning With Big Data In The Hadoop Ecosystem", Journal Of Big Data, vol: 2, 2015.
DOI: [10.1186/s40537-015-0032-1](https://doi.org/10.1186/s40537-015-0032-1)