Mohammad Mehedy Masud

Professor, College of IT (CIT), United Arab Emirates University (UAEU)
PO Box 15551, Al Ain, UAE · Cell: +971 50 931 9451
Email: mehedymasud@gmail.com · Web: http://faculty.uaeu.ac.ae/m_masud

Contents

PROFILE HIGHLIGHTS

- Published more than 100 research articles in impact factor journals and high-ranking conferences.
- Lead author of the book "Data Mining Tools for Malware Detection" (CRC Press, Dec 2011) and author of another book "Big Data Analytics with Applications in Insider Threat Detection" (CRC Press, Dec 2017).
- Principal inventor of a US Patent "Systems and Methods for Detecting a Novel Data Class". US Patent 9,165,051, Awarded in 2015.
- Awarded more than 9 million Dirhams (equivalent to 2.4 million $US) research grant as PI or Co-PI.
- Received *University Merit Excellence Award* from UAEU in two consecutive years (2019 and 2020) for excellent performance in research, teaching, and service.
- Received *College Excellence Award in Service* for outstanding service accomplishments, 2019.
- Received *College Excellence Award in Research* for outstanding research accomplishments, 2018.
- Received *Academic Award for Research Excellence (AARE)* from UAE Education and Knowledge (ADEK) council, 2017.
- Received prestigious research award from UAEU for publication in high-ranked journals in 2024, 2015, 2024, and 2025.
- Lead guest editor of Journal of Computer Networks and Communications.
- Official reviewer of 20+ Impact Factor Journals.
- Served organizing committees and TPCs of 15+ international conferences and workshops, including CIKM, ICDM, and WWW.
- Delivered Keynote speeches, invited talks, and tutorials in 20+ international conferences and workshops.
- More than 18 years of teaching experience as a Faculty member.
- Fully developed six courses; two graduate and four undergraduate.
- Taught three different graduate and twelve different undergraduate courses.
- Main supervisor of nine MS students (seven graduated) and four PhD students (two graduated). Co-supervisor of one MS student (graduated), and three PhD students (one graduated).
- Supervised 16 undergraduate senior projects (capstone projects); four of them received the best senior project awards. The total number of students on those projects is 67.
- Organizer of the UAEU University Programming Competition (UPC), every semester from 2015 to 2025.
- Mentor of computer programming teams at CIT, UAEU, winning top positions in the Gulf Programming Competition (GPC) in 2014, 2015, 2016, and 2022.
- Served the UAEU Chancellor Innovation Award Judging committee each year from 2017 to 2025.
- Served at the University Peer Evaluation of Teaching (PET) committee in 2020, 2021, 2023, 2024, and 2025.
- Served as the Judge of the Gulf Programming Competition (GPC), every year from 2012 to 2025.
- My supervised project was selected for demonstration at the GITEX 2024 and GITEX 2025.

EDUCATION

PhD, Computer Science   **December 2009**
University of Texas at Dallas   *Richardson, TX, USA*

Dissertation title: Adaptive Classification of Scarcely Labeled and Evolving Data Streams.

MS, Computer Science   **May 2008**
University of Texas at Dallas   *Richardson, TX, USA*

GPA 4.0/4.0.

BS, Computer Science and Engineering   **Aug 2001**
Bangladesh Univ. of Eng. and Technology   *Dhaka, Bangladesh*

GPA: 3.93/4.0.

EXPERIENCE

Professor   **Sep 2023 – Present**
College of Information Technology, United Arab Emirates University   *Al Ain, UAE*

Associate Professor   **Sep 2016 – Aug 2023**
College of Information Technology, United Arab Emirates University   *Al Ain, UAE*

Assistant Professor   **Jan 2012 – Aug 2016**
College of Information Technology, United Arab Emirates University   *Al Ain, UAE*

Post Doctoral Fellow (Research Associate)   **Mar 2010 - Dec 2011**
Dept. of Computer Science, University of Texas at Dallas   *Richardson, TX, USA*

Research Assistant & Teaching Assistant   **Jun 2006 - Dec 2009**
Dept. of Computer Science, University of Texas at Dallas   *Richardson, TX, USA*

Research Assistant (Jun 2006-Dec 2009) and Teaching Assistant (Aug 2005-May 2006).

Assistant Professor & Lecturer   **Aug 2001 - Jul 2005**
Computer Science and Engineering, Bangladesh U. of Engg. & Tech.   *Dhaka, Bangladesh*

Assistant Professor (Mar 2005-Jul 2005) and Lecturer (Aug 2001-Feb 2005).

AWARDS

- **University merit excellence award**, Awarded by UAEU, May 2020. It is a highly competitive award in recognition to the contribution to research, teaching and service to the University.
- **University merit excellence award**, Awarded by UAEU, May 2019.
- **College award for excellence in Service**, Awarded by College of IT, UAEU, April 2019.
- **College award for excellence in Research**, Awarded by College of IT, UAEU, May 2018.
- **College research collaboration award**, Awarded by the College of IT, UAEU, June 2018.
- **Academic Research Excellence Award**, Awarded by UAE Dept. of Education and Knowl. (ADEK), 2017.
- **Research Award** for publishing in high-ranking Journal, UAEU, May 2015, December 2024, December 2023.
- **Best poster award (3rd place)**, Intl. Conf. IIT, 2023, Al Ain UAE, Nov 2023.
- **Best presenter award**, Intl. Conf. on Medical and Health Infor. (ICMHI '24), Yokohama, Japan, May 2024.
- **Best senior project** awarded the senior projects I supervised: January 2015 (1st position), May 2018 (2nd position), May 2021 (3rd position) and April 2024 (1st position).
- **Distinguished service award**, College of IT, UAEU, June 2014.
- **Prestigious Louis Beecherl Jr. Graduate Fellowship**, Univ. of Texas at Dallas, June 2009.

RESEARCH ACCOMPLISHMENTS

Research Interests

Data Streams: Data stream classification and clustering, coping with concept-drift in data streams, classification and novel class detection in concept-drifting data streams, text stream classification, classification and clustering of data streams with dynamic feature space, active mining of data streams, and semi-supervised learning in data streams.

Clinical data analytics and Artificial Intelligence: Big healthcare data analytics, clinical decision support using AI, deep learning, stream mining, and other big data mining techniques.

Cyber Security: Malware and intrusion detection; network security solutions with data mining.

Online Profiles

- **Google Scholar:** https://scholar.google.com/citations?user=HBK9pbsAAAAJ&hl=en
  As of December 2025, total citations = 4000+; h-index = 31
- **DBLP:** https://dblp.org/pid/28/3778.html
- **Scopus:** http://www.scopus.com/authid/detail.uri?authorId=14037743900
  As of December 2025, total citations = 2200+; h-index = 25

Books

1. Mehedy Masud, Latifur Khan, Bhavani Thuraisingham. Data Mining Tools for Malware Detection. CRC Press (2011). ISBN 978-1439854549. Also available in Amazon.

2. Bhavani Thuraisingham, Mehedy Masud, Pallavi Parveen, Latifur Khan, Big Data Analytics with Applications in Insider Threat Detection. CRC Press (2017). ISBN 9781498705479. Also available in Amazon.

Patent

Mohammad Mehedy Masud, Latifur Rahman Khan, Bhavani Marienne Thuraisingham, Qing Chen, Jing Gao, Jiawei Han. "Systems and Methods for Detecting a Novel Data Class". US Patent number 9,165,051, Sep 2015. https://patents.google.com/patent/US9165051B2/en

Research Grants

G22. (Asian Universities Alliance Grant with National University of Singapore), **PI**, Children's Mental Health Screening, Assessment and Diagnosis using Artificial Intelligence, Amount AED 500,000. Awarded December 2025. (duration 2 years, *running*)

G21. (Students' Research Program), **PI**, AI-Powered Storytelling for UAE Media: Navigating Cultural Authenticity, Bias, and Language Challenges in AI-Generated Content, Amount AED 35,000. Awarded December 2025. (duration 8 months, *running*)

G20. (SURE+ Research, Internal grant), **PI**, A Green Computing Initiative for Energy and Environmental Sustainability Using Green Data Mining & Green Machine Learning. Amount AED 43,000. Awarded May 2025. (duration 1 year, *running*)

G19. (SURE+ Research, Internal grant), **PI**, Leveraging the Power of Artificial Intelligence for Children's Psychological Screening using their Drawings. Amount AED 43,000. Awarded May 2024. (duration 1 year, *completed*)

G18. (UAEU-ADU, External grant), **PI**, A Robust and Efficient Framework for Privacy-preserving Federated Learning. Amount AED 400,000. Awarded Dec 2023. (duration 2 years, *completed*)

G17. (SDG Research, Internal grant), **PI**, An Artificial Intelligence-based Early Warning System for Water-stress Effects Management using Heterogeneous Environmental Data. Amount AED 40,000. Awarded Dec 2023. (duration 4 months, *completed*)

G16. (SURE+ Research, Internal grant), **PI**, Social Media Misinformation Propagation and Detection. Amount AED 32,000. Awarded May 2023. (duration 1 year, *completed*)

G15. (SDG Research, Internal grant), **PI**, Quality Education with Key Concept Mining from Multimedia Lecture Content using Artificial Intelligence. Amount AED 32,000. Awarded Dec 2022. (duration 4 months, *completed*)

G14. (SURE+ Internal grant), **PI**, Deepfake: Making and Breaking. Amount AED 46,000. Awarded May 2022. (duration 1 year, *completed*)

G13. (External grant, Overseas funding agency), **Co-PI**, Blood Glucose Prediction from Daily Food Intake and Activities. Institute of Advanced Research grant, United International University Bangladesh. Amount BTD 1,290,000, Awarded August 2021. (duration 2 years, *completed*)

G12. (UPAR) **Co-PI**, Edge AI and Blockchain to support smart cities operations and secure data storage and sharing. UPAR grant. Amount AED 600,000. Awarded Jan 2021 (duration 2 years, *completed*).

G11. (External grant, Zayed University Research Cluster Award), **Co-PI**, Blockchain-Based Collaborative Intrusion Detection Systems and Trust Management for Industrial IoT. Amount AED 491,000, duration 3 years, awarded December 2020. (duration 2 years, *completed*)

G10. (UAEU internal collaboration grant) **PI**, Application of Artificial Intelligence in Data Quality Management and Clinical Decision Support in the Mutaba'ah: Mother and Child Health Study Amount AED 3,200,000 (3.2 M), awarded March 2020. (duration 4 years, *completed*)

G9. (External grant, overseas funding agency) **Co-PI**, "Smart emergency warning system for cardiovascular patients". ICT Innovation grant by the Bangladesh Government. Amount BDT 1,700,000, Awarded Mar 2019. (duration 2 years, *completed*)

G8. (SURE+ Internal grant), **PI**, Study and development of a deep learning model for enhancing clinical predictions using deep autoencoding and ensemble construction. Amount AED 65,000. Awarded May 2018 (duration 7 months, *completed*).

G7. (External grant, UAE Dept. of Education and Knowledge (ADEK) Research Excellence Award) **PI**, "Continuous anywhere monitoring and emergency medical warning system", amount 200,000 AED, Award date: December 2017 (duration 2 years, *completed*).

G6. (UAEU external research collaboration grant) **PI**, Awarded grant covers visit to a collaborator at a top 100 ranked University. Amount 25,000 AED, Awarded May 2018. (duration 1 month, *completed*)

G5. (UAEU Space Center Grant) **PI**, "Educational app development for raising awareness in space science". Amount 70,000 AED, Award date: September 2017 (duration 6 months, *completed*).

G4. (UAEU Startup Grant) **Co-PI**, "Privacy protection of biomedical data in the cloud". UAEU startup grant, amount 395,000 AED, Award date: January 2014 (duration 2 years, *completed*).

G3. (UAEU Interdisciplinary Grant, externally evaluated) **PI**, "Building the Foundation of an Intelligent Healthcare Information System for UAE". Amount 498,000 AED, Award date: January 2015 (duration 3 years, *completed*).

G2. (UAEU-NRF grant, externally evaluated) **PI**, "Biometrics based highly Secured Networks (BioNetworks)". Award amount AED 320,000, Award date: February 2013 (duration 3 years, *completed*).

G1. (External grant, funded by ICT funding agency, UAE) **Co-PI**, "Health Monitoring System for Modeling Individual Exposure to Environmental Triggers of Asthma Episodes in the United Arab Emirates". Project was in collaboration with the College of Medicine and Health Sciences (CMHS) and several US Universities. Award amount AED 2,728,948, Award date: July 2014 (duration 4 years, *completed*).

Total grant awarded in running and completed projects ∼ AED 9.0 Million ∼ \$US 2.4 Million

Articles in Refereed Journals

J50. Tisa Selma; Moomal Farhad; Mohammad Mehedy Masud; Saad Harous. From Facial Expressions to Engagement: A Comprehensive Multimodal Approach to Infer Video Streaming User Experience. IEEE Access, vol. 13, pp. 213886-213909 (**IF 3.6, SJR 0.849, Q1**)

J49. Benzir Md Ahmed, Md Enamul Haque, AK Obidul Huq, Mohammad Mehedy Masud, Mohammed Eunus Ali, Mahmuda Naznin. FoodBD: a polygon-annotated meal image dataset of Bangladeshi cuisines with visual and nutritional labels. BMC Res Notes (2025). (**IF 2.0, SJR 0.44**)

J48. Abubaker Suliman, Aminu S. Abdullahi, Mohammad Mehedy Masud, Mohamed Adel Serhani, Amal AlZahmi & Abderrahim Oulhaj. Comparison of oblique random survival forest, random survival forest, and statistical models for time-to-event data using simulation study. Scientific Reports 15, 44005 (2025). (**IF 4.6, SJR 0.874, Q1**)

J47. Namya Musthafa, Mohammad M. Masud, Qurban A. Memon, Moomal Farhad. VISION: View-specific integrated segmentation-classification framework for accurate brain tumor detection in MRI scans. PLoS One 20(10): e0332395. (**IF 3.752, SJR 0.89, Q1**)

J46. Namya Musthafa, Qurban A. Memon, Mohammad M. Masud. Advancing Brain Tumor Analysis: Current Trends, Key Challenges, and Perspectives in Deep Learning-Based Brain MRI Tumor Diagnosis. Eng. 2025; 6(5):82. (**SJR 0.89, Q2**)

J45. Qurban Ali Memon, Namya Musthafa, Mohammad M. Masud, Ghaya Al Ameri. Enhanced skin cancer classification via Xception model. International Journal of Advances in Applied Sciences, 14(1), 69-76 (2025). (**SJR 0.166**)

J44. A Nawaz, A Ahmad, SS Khan, MM Masud, N Ghenimi, LA Ahmed. An efficient interpretable framework for unsupervised low, very low and extreme birth weight detection. PloS one 20 (1), e0317843, 2025. (**IF 3.752, SJR 0.89, Q1**)

J43. Moomal Farhad, Mohammad M Masud, Azam Beg, Amir Ahmad, Sehar Memon. Enhanced classification of left ventricular hypertrophy in cardiac patients using extended Siamese CNN. *Physics in Medicine & Biology* 69 (14), 145001, 2024. (**IF: 3.3, SJR: 0.97, Q1**)

J42. Benzir M Ahmed, Mohammed E Ali, <u>Mohammad M Masud</u>, Mohammad R Azad, Mahmuda Naznin. After-meal blood glucose level prediction for type-2 diabetic patients. *Heliyon* 10 (7), 2024. (**IF: 0.7, SJR: 0.62, Q1**)

J41. Abubaker Suliman, <u>Mohammad M Masud</u>, Mohamed A Serhani, Aminu S Abdullahi, Abderrahim Oulhaj. Predictive performance of machine learning compared to statistical methods in time-to-event analysis of cardiovascular disease: a systematic review protocol. *BMJ open* 14 (4), e082654, 2024. (**IF: 2.9, SJR: 0.97, Q1**)

J40. Tisa Selma, <u>Mohammad M Masud</u>, Abdelhak Bentaleb, Saad Harous. Inference Analysis of Video Quality of Experience in Relation with Face Emotion, Video Advertisement, and ITU-T P. 1203. *Technologies* 12 (5), 62, 2024. (**IF: 3.2, SJR 0.86, Q2**)

J39. Benzir M Ahmed, Mohammed E Ali, <u>Mohammad M Masud</u>, Mahmuda Naznin. Recent trends and techniques of blood glucose level prediction for diabetes control. Smart Health, 100457, 2024. (**SJR 0.721, Q2**)

J38. Wasif Khan, Nazar Zaki, Nadirah Ghenimi, Amir Ahmad, Jiang Bian, <u>Mohammad M Masud</u>, Nasloon Ali, Romona Govender, Luai A Ahmed. Predicting preterm birth using explainable machine learning in a prospective cohort of nulliparous and multiparous pregnant women. *Plos one* 18 (12), e0293925, 2023. (**IF 3.752, SJR 0.89, Q1**)

J37. Wasif Khan, Nazar Zaki, Amir Ahmad, <u>Mohammad M Masud</u>, Romana Govender, Natalia RojasPerilla, Luqman Ali, Nadirah Ghenimi, Luai A Ahmed. Node embedding-based graph autoencoder outlier detection for adverse pregnancy outcomes. *Scientific reports*: 13 (1), 19817, 2023. (**IF 4.6, SJR 0.97, Q1**)

J36. Moomal Farhad, <u>Mohammad Mehedy Masud</u>, Azam Beg, Amir Ahmad, Luai A Ahmed, Sehar Memon. A data-efficient zero-shot and few-shot Siamese approach for automated diagnosis of left ventricular hypertrophy. *Computers in Biology and Medicine*: 163, 107129, 2023. (**IF 6.698, SJR 1.22, Q1**)

J35. Moomal Farhad, <u>Mohammad Mehedy Masud</u>, Azam Beg, Amir Ahmad, Luai A Ahmed, Sehar Memon. Cardiac phase detection in echocardiography using convolutional neural networks. *Scientific reports* 13 (1), 8908, 2023. (**IF 4.6, SJR 0.97, Q1**)

J34. Moomal Farhad, <u>Mohammad Mehedy Masud</u>, Azam Beg, Amir Ahmad, Luai Ahmed. A Review of Medical Diagnostic Video Analysis Using Deep Learning Techniques. *Applied Sciences* 13 (11), 6582, 2023. (**IF 2.7, SJR 0.49, Q2**)

J33. Jamalia Sultana, Benzir Md Ahmed, <u>Mohammad Mehedy Masud</u>, AK Obidul Huq, Mohammed Eunus Ali, Mahmuda Naznin. A Study on Food Value Estimation from Images: Taxonomies, Datasets, and Techniques. in IEEE Access, vol. 11, pp. 45910-45935, 2023. (**IF 3.476, SJR 0.93, Q1**)

J32. Kadhim Hayawi, Susmita Saha, <u>Mohammad Mehedy Masud</u>, Sujith Samuel Mathew, Mohammed Kaosar. Social media bot detection with deep learning methods: a systematic review. Neural Computing and Applications, 35(12), 8903-8918, 2023. (**IF 6.0, SJR 1.17, Q1**)

J31. HT El-Kassabi, MA Serhani, <u>MM Masud</u>, K Shuaib, K Khalil. Deep learning approach to security enforcement in cloud workflow orchestration. Journal of Cloud Computing 12 (1), 1-22, 2023. (**IF 3.418, SJR 1.05, Q1**)

J30. W Khan, N Zaki, A Ahmad, <u>MM Masud</u>, L Ali, N Ali, LA Ahmed. Mixed Data Imputation Using Generative Adversarial Networks. IEEE Access 10, 124475-124490, 2022. (**IF 3.476, SJR 0.93, Q1**)

J29. Nasloon Ali, Wasif Khan, Amir Ahmed, <u>Mohammad M. Masud</u>, Hiba Adam, Luai Ahmed. Predictive modeling for the diagnosis of Gestational Diabetes Mellitus using epidemiological data in the United Arab Emirates. Information (Switzerland), 13 (10), 485, 2022. (**IF 3.1, SJR 0.624, Q2**)

J28. W Khan, N Zaki, <u>MM Masud</u>, A Ahmad, L Ali, N Ali, LA Ahmed. Infant birth weight estimation and low birth weight classification in United Arab Emirates using machine learning algorithms. Scientific reports, 2022, 12 (1), 1-12. (**IF: 4.996, SJR: 1.01, Q1**)

J27. K Hayawi, S Mathew, N Venugopal, <u>MM Masud</u>, PH Ho. DeeProBot: a hybrid deep neural network model for social bot detection based on user profile data. Social Network Analysis and Mining 2022, 12 (1), 1-19 (**IF 2.8, SJR 0.46, Q1**)

J26. S. S. Das, S. K. Shanto, M. Rahman, MD. Saiful Islam, Atif Rahman, <u>Mohammad M. Masud</u> & Mohammed Eunus Ali. BayesBeat: Reliable Atrial Fibrillation Detection from Noisy Photoplethysmography Data. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) , 2022, 6(1), 1-21. (**SJR: 0.83, Q2**)

J25. Hayawi, K., Shahriar, S., Serhani, M.A., Alashwal, H., <u>Masud, M.M.</u> Vaccine versus variants (3Vs): Are the COVID-19 vaccines effective against the variants? A systematic review. Vaccines, 2021, 9(11), 1305 (**IF 4.961, SJR 1.3, Q1**)

J24. Jawhar, I., Zhang, S., Wu, J., Mohamed, N., <u>Masud, M.M.</u> Distributed algorithms for multiple path backbone discovery in thick linear sensor networks. *Journal of Sensor and Actuator Networks*, 2021, 10(3), 49 (**IF 3.5, SJR 0.96, Q1**)

J23. Md Zahangir Alam, <u>Mohammad M. Masud</u>, M Saifur Rahman, Muhsin Cheratta, Muhammad Ali Nayeem, M Sohel Rahman. Feature-ranking-based ensemble classifiers for survivability prediction of intensive care unit patients using lab test data. *Informatics in Medicine Unlocked*, 2021, 22, 100495 (**SJR: 0.64, Q2**)

J22. <u>Mohammad M. Masud</u>, Muhsin Cheratta, Kadhim Hayawi. Medication Recommendation for Critical Care Patients using Patient Similarity in Clinical Records. *International Journal of Bioscience, Biochemistry and Bioinformatics*, 10(1): 1-14 (2020)

J21. Noura Al Nuaimi and <u>Mohammad M Masud</u>. Online streaming feature selection with incremental feature grouping. *WIRES Data Mining and Knowledge Discovery* (2020), (**IF: 7.250, SJR: 1.506, Q1**)

J20. K. Hayawi, Z. Trabelsi, S. Zeidan and <u>M. M. Masud</u>, "Thwarting ICMP Low-Rate Attacks Against Firewalls While Minimizing Legitimate Traffic Loss," in *IEEE Access*, vol. 8, pp. 78029-78043, 2020, doi: 10.1109/ACCESS.2020.2987479. (**IF = 3.367, SJR: 0.587, Q1**)

J19. Noura Al Nuaimi, <u>Mohammad M Masud</u>, Nazar Zaki, Mohamed Serhani. Streaming Feature Selection Algorithms for Big Data: A Survey. *Applied Computing and Informatics*, 2020, 18(1-2), pp. 113–135 (**SJR: 0.67, Q1**)

J18. Zouheir Trabelsi, Safaa Zeidan, <u>Mohammad M. Masud</u>: Hybrid mechanism towards network packet early acceptance and rejection for unified threat management. *IET Information Security* 11(2): 104-113 (2017) (**IF: 1.037, SJR: 0.381, Q2**)

J17. Zouheir Trabelsi, <u>Mohammad M. Masud</u>: An extended identity-based cryptography protocol based on biometric. *IJIPSI* 2(3): 232-256 (2016)

J16. <u>Mohammad M. Masud</u>, Mohamed Adel Serhani, Alramzana Nujum Navaz: Resource-Aware Mobile-Based Health Monitoring. *IEEE J. Biomedical and Health Informatics* 21(2): 349-360 (2017) (**SJR: 0.991, IF: 3.451, Q1**).

J15. Tahseen Al-Khateeb, <u>Mohammad M. Masud</u>, Khaled Al-Naami, Sadi Evren Seker, Latifur Khan, Charu Aggarwal, Jiawei Han. Recurring and Novel Class Detection using Class-Based Ensemble for Evolving Data Stream. *IEEE Transactions on Knowledge and Data Engineering*. 28(10): 2752-2764 (2016). (**SJR: 3.023, IF: 2.067, Q1**)

J14. Zouheir Trabelsi, Mohammed Al Matrooshi, Saeed Al Bairaq, Walid Ibrahim and <u>Mohammad M. Masud</u>. Android based mobile apps for information security hands-on education. *Springer Education and Information Technologies* 22(1): 125-144 (2017). Online DOI 10.1007/s10639-015-9439-8, Sep 2015 (**SJR: 0.409, Q1**)

J13. Eman AbuKhousa, Yacine Atif, <u>Mohammad M. Masud</u>. A Social Learning Analytics Approach to Cognitive Apprenticeship. *Smart Learning Environments* 2015, 2:14. doi:10.1186/s40561-015-0021-z. (**SJR: 0.9**)

J12. Noura AlNuaimi, <u>Mohammad M Masud</u> and Farhan Mohammed. Examining the Effect Of Feature Selection On Improving Patient Deterioration Prediction. *International Journal of Data Mining & Knowledge Management Process (IJDKP)*, Vol.5, No.6, Nov 2015.

J11. Zouheir Trabelsi, Safaa zeidan , <u>Mohammad M. Masud</u> , Kilani Ghoudi. Statistical dynamic splay tree filters towards multilevel firewall packet filtering enhancement. *Computers & Security*. Volume 53, 109–131 (2015). (**SJR: 0.819, IF: 1.931, Q1**).

J10. Zouheir Trabelsi, Mohamed Al Hemairy, <u>Mohammad M. Masud</u>. On Investigating the Effectiveness of Biometric Readers in Thwarting Network Attacks: A Secure Architecture Design Proposal. *Journal of Intelligent Systems* 24 (2), 199-213 (2015). (**SJR: 0.158, h-index: 10**)

J9. <u>Mohammad M. Masud</u>, Q. Chen, L. Khan, C. C. Aggarwal, J. Gao, J. Han, A. Srivastava, N. C. Oza. Classification and Novel Class Detection of Feature-Evolving Data Streams. *IEEE Trans. on Knowledge and Data Engineering*, 25(7):1484-1497 (2013). (**SJR: 3.023, IF: 1.815**)

J8. Bhavani M. Thuraisingham, Tahseen Al-Khateeb, Latifur Khan, <u>Mehedy Masud</u>, Kevin W. Hamlen, Vaibhav Khadilkar, Satyen Abrol: Design and Implementation of a Data Mining System for Malware Detection. *Journal of Integrated Design & Process Science* 16(2): 33-49 (2012). (**SJR 0.123, h-index: 8**).

J7. <u>Mohammad M. Masud</u>, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani M. Thuraisingham. Facing the reality of data stream classification: Coping with scarcity of labeled data. *Journal of Knowledge and Information Systems (KAIS)*, 33(1), pp. 213-244 (2012). (**SJR: 2.812, IF: 2.225,**).

J6. <u>Mohammad M. Masud</u>, Tahseen M. Al-Khateeb, Kevin W. Hamlen, Jing Gao, Latifur Khan, and Jiawei Han. Cloud based Malware Detection for Evolving Data Streams. *ACM Transactions on Management Information Systems* 2(3), pp. 16 (2011). (**SJR: 0.7, h-index: 10**)

J5. <u>Mohammad M. Masud</u>, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani M. Thuraisingham. Classification and novel class detection in concept-drifting data streams under time constraints. *IEEE Transactions on Knowledge and Data Engg. (TKDE)* 23(6), pp. 859-874 (2011). (**SJR: 2.455, IF: 1.657**)

J4. Mohammad Husain, James McGothlin, <u>Mohammad M. Masud</u>, Latifur Khan, and Bhavani Thuraisingham. Heuristics-based Query Processing for Large RDF Graphs Using Cloud Computing. *IEEE Transactions on Knowl. and Data Engg. (TKDE)* 23(9),pp. 1312-1327 (2011). (**SJR: 2.455, IF: 1.657**).

J3. Kevin W. Hamlen, Vishwath Mohan, <u>Mohammad M. Masud</u>, Latifur Khan, and Bhavani M. Thuraisingham. Exploiting an antivirus interface. *Computer Standards and Interfaces* 31(6), pp. 1182-1189 (2009). (**SJR: 0.744, IF: 1.373**).

J2. <u>Mohammad M. Masud</u>, Latifur Khan and Bhavani Thuraisingham. A Scalable Multi-level Feature Extraction Technique to Detect Malicious Executables. *Information System Frontiers* 10(1): 33-45, 2008. (**SJR: 0.68, IF: 0.7**)

J1. <u>Mohammad M. Masud</u>, Latifur Khan and Bhavani Thuraisingham. E-Mail Worm Detection Using Data Mining. *International Journal of Information Security and Privacy* 1(4):47-61, 2007. (**SJR: 0.118, h-index: 4**)

Articles in Refereed Conference Proceedings

C53. A. S. Abdul Rasheed and M. <u>Mehedy Masud</u>. A Secure and Effective Framework for Key Concept Mining from Educational Content Using Large Language Models, In Proc. 2025 IEEE 19th International Conference on Application of Information and Communication Technologies (AICT), Al Ain, United Arab Emirates, 29-31 Oct. 2025, pp. 1-6.

C52. N. Musthafa, <u>M. M. Masud</u>, Q. Memon and Y. Statsenko. Generating Human Understandable Diagnosis Report for Brain Tumors from MRI Scans. In Proc. 2025 IEEE 19th International Conference on Application of Information and Communication Technologies (AICT), Al Ain, United Arab Emirates, 29-31 Oct. 2025, pp. 1-6.

C51. Ashika Sameem Abdul Rasheed and Mohammad <u>Mehedy Masud</u>. A Modular Framework for Hierarchical Federated Learning with Multi-Key Homomorphic Encryption. In proc. 2025 IEEE/ACS 22nd International Conference on Computer Systems and Applications (AICCSA), Doha, Qatar, 19-22 Oct. 2025, pp. 1-8. (**CORE rank C**)

C50. Namya Musthafa, Mohammad <u>Mehedy Masud</u>, and Qurban Memon. BRAIN-CNet: A Segmentation guided Framework for Brain Tumor Detection and Classification from MRI Scans. In proc. 2025 IEEE/ACS 22nd International Conference on Computer Systems and Applications (AICCSA), Doha, Qatar, 19-22 Oct. 2025, pp. 1-6. (**CORE rank C**)

C49. Moomal Farhad, <u>Mohammad M. Masud</u>, Aisha Alnaqbi, Rawan Mubarak, Aaisha Aladawi and Sara Alnaqbi. From Crayons to Code: AI-Driven Insights into a Child's Mental Health Through Drawings. In Proceedings of the 39th AAAI Conference on Artificial Intelligence (AAAI-25), 39(28), 28923-28929, Philadelphia, USA, Feb 2025. (**Top ranking AI conference, Rank A*, Acceptance rate 16%**)

C48. <u>MM Masud</u>, ASA Rasheed, X Zhu, M Al-Rajab. Privacy Preserving Multi-party Learning Framework for Enhanced Personalized Neuro-Rehabilitation. International Conference on Neuro Rehabilitation (ICNR), 456-460, Segovia, Spain, Nov 2024.

C47. Namya Musthafa, <u>Mohammad M Masud</u>, Q Memon. Advancing Early-Stage Brain Tumor Detection with Segmentation by Modified_Unet. In proceedings of 2024 8th International Conference on Medical and Health Informatics (ICMHI), Yokohama, Japan, May 2024.

C46. Moomal Farhad, <u>Mohammad M Masud.</u> Automated LVH Grading: Integration of Deep Learning and Explainable AI for Accurate Diagnosis. In proceedings of 2024 8th International Conference on Medical and Health Informatics (ICMHI), Yokohama, Japan, May 2024.

C45. Shamma Esmaeel Jamali, <u>Mohammad Mehedy Masud</u>. Orbit Propagation and Determination using Genetic Algorithms. In proceedings of 2023 15th International Conference on Innovations in Information Technology (IIT), 13-19, Nov 14-15, Al Ain, UAE

C44. Mariam Alkaabi, Meera Albloushi, Alyazia Alkaabi, Amna Alhammadi, Fatima Alketbi, <u>Mohammad M Masud</u>. An Enhanced Deepfake Video Detection Technique. In proceedings of 2023 15th International Conference on Innovations in Information Technology (IIT), 234-239, Nov 14-15, Al Ain, UAE.

C43. Shama Alalawi, Safa Baalfaqih, Maitha Almeqbaali, <u>Mohammad M Masud</u>. Social Media Misinformation Propagation and Detection. In proceedings of 2023 15th International Conference on Innovations in Information Technology (IIT), 240-245, Nov 14-15, Al Ain, UAE.

C42. Ashika Sameem Abdul Rasheed, <u>Mohammad Mehedy Masud</u>, Mohammed Abduljabbar. A Comparative Study of Transformer Based Pretrained AI Models for Content Summarization. In proceedings of 2023 15th International Conference on Innovations in Information Technology (IIT), 79-84, Nov 14-15, Al Ain, UAE.

C41. <u>Mohammad M. Masud</u>, Kadhim Hayawi, Sujith Samuel Mathew, Temesgen Michael and Mai ElBarachi. Smart Online Exam Proctoring Assist for Cheating Detection. In Proceedings of *International Conference on Advanced Data Mining and Applications* (ADMA), 2021, Jan 2022, Sydney, Australia. (**Acceptance rate 24%, CORE ranking B**).

C40. Moomal Farhad, <u>Mohammad M. Masud</u>, Azam Beg. Deep Learning based Cardiac Phase Detection using Echocardiography Imaging. In Proceedings of *International Conference on Advanced Data Mining and Applications* (ADMA), 2021, Jan 2022, Sydney, Australia. (**Acceptance rate 24%, CORE ranking B**).

C39. I Makhdoom, K Hayawi, M Kaosar, SS Mathew, <u>M. M. Masud</u>. Blockchain-based Secure CIDS Operation. Proceedings of the 5th Cyber Security in Networking Conference (CSNet), 2021, pp. 103-106

C38. Moomal Farhad, Heba Ismail, Saad Harous, <u>Mohammad M. Masud</u>, Azam Beg. Analysis of Emotion Recognition from Cross-lingual Speech: Arabic, English, and Urdu. *In Proc. of the 2nd International Conf. on Computation, Automation and Knowl. Management* (ICCAKM - 2021), Dubai, UAE, Jan 19-21, 2021.

C37. <u>Mohammad M. Masud</u>, Ahmed Dirir and Muhsin Cheratta. Effective Patient Similarity Computation for Clinical Decision Support using Time Series and Static Data. ACSW '20: Proceedings of the Australasian Computer Science Week Multiconference, Melbourne, Australia, 4-6 February, 2020.

C36. <u>Mohammad M. Masud</u> and Muhsin Cheratta: A Framework for Utilizing Lab Test Results for Clinical Prediction of ICU Patients. *Health Informatics Workshop @ 32nd AAAI Conference on Artificial Intelligence (AAAI-18)*, Feb 2-7, 2018, New Orleans, USA

C35. <u>Mohammad M. Masud</u>, Muhsin Cheratta, Abdel Rahman Al Harahsheh: Survival Prediction of ICU Patients using Knowledge Intensive Data Grouping and Selection. In Proc. *2017 International Conference on Information and Communication Technology and Accessibility (ICTA 2017)*, Dec 19-21, Muscat, Oman.

C34. Ahsanul Haque, Bo Dong, Yifan Li, Yang Gao, Latifur Khan, and <u>Mohammad M. Masud</u>: Multistream Regression with Asynchronous Concept Drift Detection . In Proc., *IEEE Big Data 2017*: Boston, USA, Dec 11-14. (**Class B Conference**)

C33. N Al Nuaimi, and <u>Mohammad M. Masud</u>: Toward optimal streaming feature selection. 2017 IEEE international conference on Data science and advanced analytics (DSAA). Tokyo, Japan, 19-21 Oct 2017. (**Class A Conference**)

C32. Imad Jawhar, Sheng Zhang, Jie Wu, Nader Mohamed, <u>Mohammad M Masud</u>. Efficient topology discovery and routing in thick wireless Linear Sensor Networks. 2017 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS). Atlanta, GA, USA, 01-04 May 2017.

C31. <u>Mohammad M. Masud</u>, Abdel Rahman Al Harahsheh: Mortality prediction of ICU patients using lab test data by feature vector compaction & classification. In Proc., *IEEE BigData 2016*: Washington, DC, USA, Dec 5-8, pp 3404-3411. (**Class B Conference**)

C30. <u>Mohammad M. Masud</u>, Mohamed Al Maleki, Zouheir Trabelsi. IDS Performance Enhancement with Intelligent Predictive Packet Inspection. Proceedings of the 7th International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC 2016), March 8-11, Orlando, Florida.

C29. Zouheir Trabelsi, Safaa Zeidan and <u>Mohammad M. Masud</u>. Network Packet Filtering and Deep Packet Inspection Hybrid Mechanism for IDS Early Packet Matching. *In Proceedings of the 30th IEEE International Conference on Advanced Information Networking and Applications (AINA-2016)*, Crans-Montana, Switzerland, March 23-25, 2016, 808-815. (**Acceptance rate: 30%, Class B Conference**).

C28. Noura AlNuaimi, <u>Mohammad M. Masud</u> and Farhan Mohammed. ICU Patient Deterioration prediction: a Data-Mining Approach. *Fourth Intl. Conf. on Data Mining and Knowledge Management Process*, Dubai, UAE Nov 6-7, CoRR abs/1511.06910 (2015).

C27. <u>Mohammad M. Masud</u>, Ameera Al-Shehhi, Eiman Al-Shamsi, Shamma Al-Hassani, Asmaa AlHamoudi, Latifur Khan. Online Prediction of Chess Match Result. In PAKDD '15: *Proceedings of The 19th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2015)*, pages 525-537, HoChiMinh City, Vietnam, 19-22 May 2015. (**Acceptance rate: 22%, Class A Conference**).

C26. Hind Al Falasi, <u>Mohammad M. Masud</u>, Nader Mohamed. Trusting the Same: Using Similarity to Establish Trust among Vehicles. In CTS '15: *Proceedings of 2015 International Conf. on Collaboration Tech. and Systems (CTS 2015)*, pages 64-69, June 01-05, 2015, Atlanta, Georgia, USA. (**Class C Conference**).

C25. L. Ismail, <u>Mohammad M. Masud</u>, Latifur Khan. FSBD: A Framework for Scheduling of Big Data Mining in Cloud Computing. In Proceedings of *2014 IEEE International Congress on Big Data (Big Data Congress 2014)*, Anchorage, Alaska, July 2014, pp 514-521.

C24. <u>Mohammad M. Masud</u>, Zouheir Trabelsi, and Umniya Mustafa. A Data Driven FireWall for Faster Packet Filtering, In *COMNET '14: Proceedings of the fourth International Conference on Communications and Networking (COMNET 2014)*, Hammamet, Tunisia, March 19-22, 2014.

C23. Zouheir Trabelsi, Mohammed Al Hemairy, and <u>Mohammad M. Masud</u>. Resilience of Fingerprint and Iris Readers against Common Denial of Service Attacks, In *WCCAIS '14: Proc. of the World Congress On Comp. Applications and Information Systems (WCCAIS 2014)*, Hammamet, Tunisia, January 17-19, 2014.

C22. Umniya Mustafa, <u>Mohammad M. Masud</u>, Zouheir Trabelsi, Timothy Wood and Zainab Al Harthi. Firewall Performance Optimization using Data Mining Techniques, In IWCMC '13: *Proc. of The 9th Intl Wireless Comm. and Mobile Computing Conf. (IWCMC 2013)*, Sardinia, Italy, July 1-5, pp 934-940, 2013. (**Class B Conference**).

C21. Tahseen Al-Khateeb, <u>Mohammad M. Masud</u>, Latifur Khan, Charu C. Aggarwal, Jiawei Han, Bhavani M. Thuraisingham. Stream Classification with Recurring and Novel Class Detection Using Class-Based Ensemble, In ICDM '12: *Proceedings of the IEEE International Conference on Data Mining (IEEE ICDM 2012)*, pp. 31-40, Brussels, Belgium, Dec 2012. (**Acceptance rate: 19.9%, Class A* Conference**).

C20. Tahseen Al-Khateeb, <u>Mohammad M. Masud</u>, Latifur Khan, Bhavani M. Thuraisingham, Cloud Guided Stream Classification Using Class-Based Ensemble. In CLOUD '12: *Proc. of the 5th Intl. Conf. on Cloud Computing (IEEE CLOUD 2012)*, pp. 694-701, Hawaii, USA, June 2012. (**Class B conference**)

C19. <u>Mohammad M. Masud</u>, Tahseen Al-Khateeb, Latifur Khan, Charu C. Aggarwal, Jing Gao, Jiawei Han, Bhavani M. Thuraisingham. Detecting Recurring and Novel Classes in Concept-Drifting Data Streams. In ICDM '11: *Proceedings of the IEEE International Conf. on Data Mining (ICDM 2011)*, pp. 1176-1181, Vancouver, Canada, Dec 2011. (**Acceptance rate: 18%, Class A* Conference**).

C18. Altaher, A., Ramadass, S., Thuraisingham, B., <u>Mehedy, M</u>. On-line anomaly detection based on relative entropy. In IC-BNMT' 11: *Proceedings of the 4th IEEE International Conference on Broadband Network and Multimedia Technology (IC-BNMT)*, pp. 33-36, Oct 26-28, 2011.

C17. <u>Mohammad M. Masud</u>, Qing Chen, Jing Gao, Latifur Khan, Charu Aggarwal, Jiawei Han, and Bhavani Thuraisingham. Addressing Concept-Evolution in Concept-Drifting Data Streams. In ICDM '10:

Proceedings of the IEEE International Conference on Data Mining (ICDM 2010), pages 929-934, Sydney, Australia, December 14-17, 2010. (**Acceptance rate: 19.4%, Class A* Conference**).

C16. Mohammad M. Masud, Qing Chen, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani Thuraisingham. Classification and Novel Class Detection of Data Streams in A Dynamic Feature Space. In ECML PKDD '10: *Proceedings of the 2010 European Conference on Machine Learning and Principles and Practice in Knowledge Discovery in Databases (ECML/PKDD '10)*, vol 2, pages 337-352, Barcelona, Spain, Sep 20-24, 2010. (**Acceptance rate: 18.2%, Class A Conference**).

C15. Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani M. Thuraisingham. Classification and Novel Class Detection in Data Streams with Active Mining. In PAKDD '10: *Proceedings of The 14th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2010)*, pages 311324, Hyderabad, India, 21-24 June 2010. (**Acceptance rate: 23.3%, Class A Conference**).

C14. Tahseen Al-Khateeb, Mohammad Salim Ahmed, Mohammad Masud and Latifur Khan. A Data Intensive Multi-chunk Ensemble Technique to Classify Stream Data Using Map-Reduce Framework. *Workshop on High Perf. Anal. – Algor., Impl., and Applications*. Columbus, Ohio, USA, May 1st, 2010.

C13. ClayWoolam, Mohammad M. Masud, and Latifur Khan. Lacking labels in the stream: Classifying evolving stream data with few labels. In ISMIS '09: *Proceedings of the 18th International Symposium on Methodologies for Intelligent Systems (ISMIS 2009)*, pages 552-562, Prague, Czech Rep., 14-17 Sep 2009.

C12. Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani M. Thuraisingham. Integrating novel class detection with classification for concept-drifting data streams. In ECML PKDD '09: *Proc. of the Euro. Conf. on ML and Principles and Practice in Knowl. Dis. in Databases (ECML/PKDD 2009)*, vol 2, pages 79-94, Bled, Slovenia, 7-11 Sep 2009. (**Acceptance rate: 24.9%, Class A Conference**)

C11. Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani M. Thuraisingham. A multipartition multi-chunk ensemble technique to classify concept-drifting data streams. In PAKDD '09: *Proceedings of the 13th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2009)*, pages 363-375, Bangkok, Thailand, 27-30 Apr 2009. (**Acceptance rate: 21.3%, Class A Conference**).

C10. Mohammad M. Masud, Latifur Khan, Bhavani M. Thuraisingham, Xinran Wang, Peng Liu, and Sencun Zhu. Detecting remote exploits using data mining. In Sujeet Shenoi Indrajit Ray, ed., *IFIP Intl. Federation for Info. Processing*, vol 285; Advances in Digital Forensics IV, pp 177-189, 2008.

C9. Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, Bhavani Thuraisingham. Peer to peer botnet detection for cyber-security: a data mining approach. In CSIIRW '08: *Proc. of the 4th annual workshop on Cyber security and info. intelligence research (CSIIRW)*: developing strategies to meet the cyber security and info. intelligence challenges ahead. Art. No. 39. Oak Ridge, TN, USA, May 12-14, 2008.

C8. Bhavani M. Thuraisingham, Latifur Khan, Mohammad M. Masud, Kevin W. Hamlen. Data Mining for Security Applications. In EUC '08: *Proceedings of the Intl. Conference On Embedded and Ubiquitous Computing (EUC 2008)*, vol 2, pages 585-589, Shanghai, China, 17-20 Dec 2008. (**Class C Conference**).

C7. Mohammad M. Masud, Jing Gao, Latifur Khan, Jiawei Han, and Bhavani M. Thuraisingham. A practical approach to classify evolving data streams: Training with limited amount of labeled data. In ICDM '08: *Proceedings of the 2008 International Conference on Data Mining (ICDM 2008)*, pages 929-934, Pisa, Italy, 15-19 Dec 2008. (**Acceptance rate: 19.9%, Class A* Conference**)

C6. Mohammad M. Masud, Tahseen Al-khateeb, Latifur Khan, Bhavani M. Thuraisingham, and Kevin W. Hamlen. Flow-based identification of botnet traffic by mining multiple log files. In DFMA '08: *Proceedings of the 2008 International Conference on Distributed Frameworks and Multimedia Applications (DFMA 2008)*, pages 200-206, Penang, Malaysia, 21-22 October 2008. (**Class C conference**).

C5. Mohammad M. Masud, Latifur Khan, and Bhavani M. Thuraisingham. Feature based techniques for autodetection of novel email worms. In PAKDD '07: *Proceedings of the 11th Pacific-Asia Conf. on Knowl. Discovery and Data Mining (PAKDD 2007)*, pages 205-216, Nanjing, China, 22-25 May 2007. (Acceptance rate: 17.7%, Class A Conference).

C4. Mohammad M. Masud, Latifur Khan, and Bhavani M. Thuraisingham. A hybrid model to detect malicious executables. In ICC '07: *Proceedings of the 2007 IEEE International Conference on Communications (ICC 2007)*, pages 1443-1448, Glasgow, Scottland, 24-28 June 2007. (**Class B Conference**)

C3. Mohammad M. Masud, Latifur Khan, and Ehab Al-Shaer. Email worm detection using naive bayes and support vector machine. In ISI '06: *Proceedings of the 2006 IEEE Intelligence and Security Informatics Conference (ISI 2006)*, pages 733-734, San Diego, California, 23-24 May 2006. (**Class C Conference**)

C2. Mohammad M Masud. Combined Evolution Model: Integrating Machine Learning, Simulated Annealing and Evolutionary Computing. In RASC'04: *Proceedings of the 5th International Conf. on Recent Advances in Soft Computing (RASC 2004)*, Nottingham, U.K, pp. 428-435, 16-18 December, 2004.

C1. Mohammad M. Masud, Md. Monirul Islam & K. Murase. Empirical Study on Learnable Evolution Model for PMedian and Capacitated P-Median Problems. In HART '04: *Proceedings of the 4th International Symposium on Human and Artificial Intelligence Systems (HART 2004)*: From Control to Autonomy, Fukui, Japan, pp. 265-270, 5-6 December, 2004.

Conference Rankings Source: CORE conference ranking portal, Computer Science and networking Conference Rankings, and Conferences Ranks. **Journal Rankings Source:** SJR (Scimago Journal & Country Rank) and ISI Web of Science.

Public Presentations

Conference presentations (oral)

- M M. Masud: From Crayons to Code: AI-Driven Insights into a Child's Mental Health Through Drawings. Accepted in Nov 2024. In Proceedings of the 39th AAAI Conference on Artificial Intelligence (AAAI-25), Philadelphia, USA, Feb 2025.
- M M. Masud: Privacy Preserving Multi-party Learning Framework for Enhanced Personalized Neuro Rehabilitation. International Conference on Neuro Rehabilitation (ICNR), 456-460, La Granja, Spain, Nov 2024.
- M M. Masud: Advancing Early-Stage Brain Tumor Detection with Segmentation by Modified_Unet. In 2024 8th International Conference on Medical and Health Informatics (ICMHI), Yokohama, Japan, May 2024
- M M. Masud: Automated LVH Grading: Integration of Deep Learning and Explainable AI for Accurate Diagnosis. 2024 8th International Conference on Medical and Health Informatics (ICMHI), 2024. Yokohama, Japan, May 2024
- M M. Masud: Smart Online Exam Proctoring Assist for Cheating Detection. In Proceedings of International Conference on Advanced Data Mining and Applications (ADMA), 2021, Sydney, Australia. (2-4 February, 2022, online).
- M M. Masud: Effective Patient Similarity Computation for Clinical Decision Support using Time Series and Static Data. Health Informatics and Knowledge Management (HIKM 2020), Melbourne, Australia, 4-6 February, 2020.
- M M. Masud: A Framework for Utilizing Lab Test Results for Clinical Prediction of ICU Patients. Health Intelligence Workshop @ 32nd AAAI Conference on Artificial Intelligence (AAAI-18), Feb 2-7, 2018, New Orleans, USA
- M. M. Masud, Survival Prediction of ICU Patients using Knowledge Intensive Data Grouping and Selection. 2017 International Conference on Information and Communication Technology and Accessibility (ICTA 2017), Dec 19-21, Muscat, Oman.
- M. M. Masud, Mortality prediction of ICU patients using lab test data by feature vector compaction & classification. IEEE BigData 2016: Washington, DC, USA, Dec 5-8.
- M. M. Masud, IDS Performance Enhancement with Intelligent Predictive Packet Inspection. Presented at the 7th International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC 2016), March 8-11, Orlando, Florida.
- M. M. Masud, Online Prediction of Chess Match Result. The 19th Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2015), Ho-Chi-Minh City, Vietnam, 19-22 May 2015.
- M. M. Masud, Data Stream Mining for Malware Detection and Network Security, Workshop on Emerging Data Center and Cloud Computing Technologies, Al Ain, UAE, Dec 2013.
- M. M. Masud, Stream Classification with Recurring and Novel Class Detection Using Class-Based Ensemble. IEEE International Conference on Data Mining (IEEE ICDM 2012), Brussels, Belgium, Dec 2012.
- M. M. Masud, Detecting Recurring and Novel Classes in Concept-Drifting Data Streams. IEEE International Conference on Data Mining (ICDM 2011), Vancouver, Canada, Dec 2011.
- M. M. Masud, Peer to Peer Botnet Detection for Cyber-Security: A Data Mining Approach. Cyber Security and Information Intelligence Research Workshop (CSIIRW), Oak Ridge National Laboratory, May 2008.

Conference presentations (poster)

- <u>M. M. Masud</u>: A Cloud-based Framework for Smart Predictive Packet Inspection of Intrusion Detection Systems. Poster at the 13th USENIX Symposium on Networked Systems Design and Implementation (NSDI '16), Santa Clara, CA, USA, March 16-18, 2016.

- <u>M. M. Masud</u>, MineClass: A Synergy of Data Stream Classification and Novel Class Detection. Doctoral Student Forum, SIAM International Conference on Data Mining (SDM), Sparks, NV, May 2009.

- <u>M. M. Masud</u>, Novel Class Detection in Concept-Drifting Data Streams in a Shared Environment. Multi-disciplinary University Research Initiative (MURI) meeting, University of Maryland Baltimore County, Sep 2009.

- <u>M. M. Masud</u>, A Knowledge-based Approach to detect new Malicious Executables. Second Secure Knowledge Management Workshop (SKM06), Brooklyn, NY, USA, Sep 2006.

Invited Talks

- <u>M M. Masud</u>: A Novel Federated Learning Approach for Security and Privacy. WS23. The 2nd Edition of the Worldwide Network of AI Labs in Healthcare (WNAH2023): The Impact of AI in Rehabilitation and Data Management, at the International Conference on Neuro Rehabilitation (ICNR), 456-460, La Granja, Spain, Nov 2024.

- <u>M M. Masud</u>, Invited speaker, at the 3rd UAEU Research Discovery Forum, AI in Medicine and Health Science, Friday 25 Apr 2025

- <u>M M. Masud</u>, Invited speaker, at the 1st UAEU COS Honors students' recognition ceremony, 13 Nov 2024

- <u>M M. Masud</u>, Presented at the CIT Faculty seminar, Friday 1st Nov 2024

- <u>M M. Masud</u>, presented at the 1st UAEU Research Discovery Forum, AI in Science and Engineering, Friday 18 Oct 2024

- <u>M. M. Masud</u>, Big Clinical Data Analytics for Intelligent Healthcare, BRAC University, Dhaka, Bangladesh, April 2019

- <u>M. M. Masud</u>, Big Data Analytics for Smart Cities. Workshop for UAEU, Nov 2018

- <u>M. M. Masud</u>, Big Data Analytics for Intelligent Healthcare. The 1st Dubai Data Science Workshop, Canadian University of Dubai, UAE, April 2018

- <u>M. M. Masud</u>, Big Data Analytics and its Potentials for Oil and Gas Industry. The 2nd Data and Information Management in Oil and Gas Conference, Abu Dhabi, UAE, Sep 2015

- <u>M. M Masud</u>, Active Defense with Data Mining. Information Sciences Institute (ISI), Los Angeles, CA, USA, Jan 2011.

- <u>M. M. Masud</u>, Data Stream Mining for Cyber Security. Society for Design Process Science (SDPS) Conference, Dallas, TX, Jun 2010.

- <u>M. M. Masud</u>, Malware Detection using Data Mining. Secure World Expo, Dallas, TX, USA, Nov 2009

Keynote Speeches

- <u>M M Masud</u>, Clinical Decision Support from Unstructured and Temporal Data. Workshop on Health 4.0: AI-Enabled, and Patient-Centric Predictive Precision Medicine, Expo 2020, Dubai, Feb 10-11, 2022.

- <u>M. M. Masud</u>, Intelligent Healthcare Initiatives. Workshop on Health Data Analytics, Bangladesh University of Engineering and Technology (BUET), Dhaka, April 2019

- <u>M. M. Masud</u>, Healthcare Decision Support. Workshop on Intelligent Healthcare. CIT, UAEU, March 2018.

- <u>M M Masud</u>, Challenges, Tools, and Applications of Data Stream Mining. 14th International Conference on Computer and Information Technology (ICCIT 2011), Dhaka, Bangladesh, Dec 2011.

- <u>M. M. Masud</u>, Big Data Management and Analytics. Workshop on Advances in Data Management (WADM), Dhaka, Bangladesh, June 2013

Tutorials

- M. Farhad, <u>M. M. Masud</u>. Advanced Techniques for Automated Diagnosis of Cardiac Diseases (Tutorial T6). Pacific Asia Conf. on Knowl. Discovery and Data Mining (PAKDD '25), Sydney, Australia, Jun 2025.

- L. Khan, W. Fan, J. Han, J. Gao and <u>M. M. Masud</u>, Data Stream Mining: Challenges and Techniques. Pacific-Asia Conf. on Knowl. Discovery and Data Mining (PAKDD '11), Shenzhen, China, May 2011.

- <u>M. M. Masud</u>, Data Mining for Security Applications. IEEE Conference on Intelligence and Security Informatics (ISI), Dallas, TX, Jun, 2009.

SERVICES AND PROFESSIONAL ACTIVITIES

Professional Membership

- Member of IEEE (2010-Present)
- Member of ACM (2010-Present)
- Member of Association for Advancement of AI (AAAI) (2024-Present)

Editorial Membership

- Lead Guest Editor, Special issue on "Big Data Science in Internet of Things". Journal of Computer Networks and Communications, 2017.
- Lead Guest Editor, Special issue on "Mining Big Data in Social Networks and Healthcare". Journal of Electrical and Computer Engineering, 2016

Conference / Workshop Organization

- Thematic Track Organizer, 18th Intl. Conf. on Computer Sc. and Intelligence Systems, 2023.
- Worskhop Co-Chair, NEMESIS Workshop at the 18th Conference on Computer Science and Intelligence Systems (FedCSIS 2023)
- Member of Organizing Committee, Keynote speaker and Panelist, Health 4.0: AI-Enabled, and PatientCentric Predictive Precision Medicine, Expo 2020, Dubai, Feb 10-11, 2022.
- Organizer and Keynote Speaker, Workshop on Health Data Analytics, Bangladesh University of Engineering and Technology (BUET), Dhaka, April 2019.
- Program Co-chair, International Conference on Innovations in IT (IIT), Al Ain, UAE, Nov 2018.
- Member of steering committee, IEEE International Conference on Innovations in Information Technology, 2018.
- Program Co-chair, IEEE International Conference on Info. Reuse and Integration (IRI), Salt Lake City, Utah, USA, Jul 2018
- Organizer, Keynote Speaker, and Panelist, Health Intelligence Workshop, March, 2018.
- Industry track Co-chair, IEEE International Conference on Info. Reuse and Integration (IRI), 2017
- Chair, publication committee, Intl. Conference on Innovations in IT (IIT), Al Ain, UAE, Nov 2016.
- Member, Steering committee, 2nd Workshop on Smart and Connected Health, Al Ain, UAE, Feb 2016.
- Chair, Student Poster Track, International Conference on Innovations in IT (IIT) – Apr 2014.
- Session chair, Advanced Data Mining and Applications (ADMA '21) – Feb 2022.
- Session chair, ACM SIGKDD Conference (SIGKDD '21) – Aug 2021

Technical Program Committee Member

- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) – 2025, 2026
- ACM SIGKDD International Conference – 2022, 2023;
- SIAM International Conference on Data Mining (SDM) – 2022, 2023, 2024;
- Abu Dhabi AI Summit (ADAIS), 2023S
- IEEE International Conf. on BigData – 2024;
- IEEE Global Engineering Education Conference (EDUCON) - 2021
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining – 2021, 2022
- SIAM International Conference on Data Mining (SDM) – 2020, 2021, 2022, 2023
- IEEE International Conference on BigData – 2018, 2019
- International Conference on Computer Science and Information Technology - 2018
- Intl. Conf. on Information System and Data Mining (ICISDM) – 2019
- Intl. Conf. on Computer Systems and Applications AICCSA 2017
- International Conference on Communications (ICC) 2018
- Workshop on AI for Aging, Rehabilitation and Independent Assisted Living (ARIAL) @ IJCAI- 2018
- Workshop on AI for Aging, Rehabilitation and Independent Assisted Living (ARIAL) @ ICDM- 2017

- IEEE Conf. on Connected Health: Applications, Syst. and Engg. Tech. (CHASE) – 2017, 2016
- Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD) – 2016
- International Conference on Innovations in IT (IIT) – 2015, 2016, 2018, 2020
- IEEE Intl. Workshop on Networks of Sensors, Wearable, and Mob. Devices (NSWMD)-2017,2016
- IEEE Intelligence and Security Informatics Conference (ISI) – 2013
- ACM International Conference on Information and Knowledge Management – 2013 (CIKM '13)
- ACM International Conference on Information and Knowledge Management – 2012 (CIKM '12)
- International Symposium on Pervasive Systems, Algorithms and Network (ISPAN)- 2012 World Wide Web (WWW) Poster Track - 2011
- ACM SIGKDD Workshop on Novel Data Stream Pattern Mining Techniques (StreamKDD '10) 2010.

Selected Manuscript Reviewing

Conferences
- ACM Intl. Conf. on Knowledge Discovery and Data Mining (SIGKDD) – 2022, 2021, 2011, 2010, 2009
- International Conf. on Advances in Satellite and Space Communications (SPACOMM) - 2019 International Conference on Innovations in IT (IIT) –2020, 2018, 2016, 2015, 2014, 2013, 2012
- IEEE Intelligent Systems – 2018
- International Conference on Signal Processing and Information Security (ICSPIS) – 2018
- International Conference on Computational Science (ICCS) - 2017
- IEEE Wireless in Space and Extreme Environment (WiSEE) - 2017
- ACM International Conf. on Information and Knowledge Management (CIKM) – 2013, 2012
- International Symposium on Pervasive Systems – 2012 (ISPAN '12)
- Euro. Conf. on ML and Pr. and Prac. in Knowl. Disc. in Data. - 2011 (ECML/PKDD '11)
- International Conference on Data Mining (ICDM) – 2010, 2009
- Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD) – 2026, 2025, 2016, 2010
- ACM International Conf. on Advances in Geographic Information Systems (GIS)– 2010
- IFIP WG 11.9 International Conference on Digital Forensics – 2009
- Siam International Conference on Data Mining (SDM) - 2009, 2008
- International Conference on Communications (ICC) – 2007
- International Conference on Dependable Systems and Networks (DSN) – 2007

Journals
- Internet of Things (IoT) journal – 2024
- IEEE Access – 2021
- IEEE Transactions on Big Data - 2021
- Journal of Big Data Research - 2020
- PLOS One - 2019
- Elsevier Computers and Security (COSE) – 2018
- Journal of Computational Intelligence and Neuroscience - 2019
- IEEE Transactions on Information Forensics & Security (TIFS) – 2017, 2018
- Data Science & Engineering (DSE) Journal – 2018
- Artificial Intelligence in Medicine (AIM) – 2017
- International Journal of Computer Information Systems and Industrial Management
- Applications – 2018
- Informatics in medicine Unlocked (IMU) - 2018
- IEEE Trans on Knowl. and Data Engg (TKDE) – 2024, 2022, 2018, 2017, 2015, 2014, 2013, 2012, 2011
- IEEE Transactions on Database Systems (ToDS) – 2015
- Journal of Innovation in Digital Ecosystems (JIDE), Elsevier – 2015
- IEEE Trans. on Neural Net. and Learning Systems (TNNLS) – 2014, 2013, 2012, 2011
- IEEE Transactions on Signal Processing (TSP) – 2014, 2013

- Journal of Knowledge and Information Systems (KAIS) –2018, 2017, 2016, 2014, 2013, 2012
- Data Mining and Knowledge Discovery Journal (DAMI) – 2018, 2017, 2014, 2013
- IEEE Internet of Things (IOT) Journal – 2014
- Journal of Intelligent Information Systems (JIIS) – 2014
- Journal of Machine Vision and Applications (MVAP) – 2014
- Journal of Security and Communication Networks (SCN) – 2014, 2012
- ACM Transactions on Knowledge Discovery from Data (TKDD) – 2022, 2016, 2013
- ACM Transactions on Management Information Systems (TMIS) – 2013
- Journal of Electronic Commerce Research (ECR) – 2013
- Journal of Artificial Intelligence (ARTINT), Elsevier – 2011
- Information Systems Frontiers (ISF) Journal – 2011
- Journal of Zhejiang University Science (JZUS) – 2011, 2010
- IEEE Trans. on Dependable and Secure Computing (TDSC) – 2009
- IEEE Intelligent Systems Journal - 2017

Funding proposal reviewer
Marsden Fund, New Zealand - 2018

Consultation Services

- Served as a member of a team of consultants for developing "automated clearing and settlement system" software for Dhaka Stock Exchange (DSE), Dhaka, Bangladesh, 2004-2005.
  - The system had been developed in Java / JSP programming language on the j2ee Struts (from Jakarta) framework using Oracle database.
  - Consultancy was appointed by the Bureau of Research Testing and Consultancy, Bangladesh University of Engineering and Technology.
- Judge, chancellor innovation award:
  - AY 2024-25, 2023-2024, AY 2022-2023, AY 2021-2022, AY 2020-2021, AY2019-2020, AY 2018-2019 and AY 2017-2018.
  - Also served as the **rapporteur** of the same committee in AY 2024-25, 2023-2024, AY 2022-2023, AY 2021-2022, AY 2020-2021, AY 2019-2020, and AY 2018-2019.
  - This consultancy is related to my expertise where I was invited in the judging committee to evaluate applications that closely matched my professional and research expertise, and my services were remunerated each year.
- Problem setter and Judge, Gulf Programming Competition (GPC):
  - GPC 2023, Sultan Qaboos University, Oman, Nov 1-2
  - GPC 2022, Sultan Qaboos University, Oman, Nov 1-2
  - GPC 2019, Sultan Qaboos University, Oman, Mar 30-April 1
  - GPC 2018, Zayed University, UAE, March 21-22, 2018
  - GPC 2017, Gulf University of Science & Tech, Kuwait, March 22-23, 2017
  - GPC 2016, Gulf University of Science & Tech, Kuwait, March 23-24, 2016
  - GPC 2016, Gulf University of Science & Tech, Kuwait, March 23-24, 2016
  - GPC 2015, American University of Dubai, UAE, March 25-26, 2015
  - GPC 2014, American University of Dubai, UAE, March 19–20, 2014.
  - GPC 2013, Khalifa University, Abu Dhabi, UAE, March 13–14, 2013.
  - GPC 2012, Khalifa University, Abu Dhabi, UAE, March 14-15, 2012.
  - This consultancy involves problem setting, and Judging, which requires high programming and algorithmic skills, and the judge's travel, dining, and accommodations during the contest are paid by the GPC organizers.

Teaching, Mentoring, and Advising

Courses developed, taught, and contributed

Taught the following courses and either completely developed the course or revised the content.

Graduate Courses:

- Completely developed and taught:
    - **Special topics in IT (ITPG797): (Complete development)** The topic chosen was "**Big data analytics for healthcare and security**", which I offered this graduate course for Spring 2016. It is the first time the course is offered in UAEU. Developed the syllabus, teaching materials, homeworks, projects, and exams.
    - **Software Security (SECB624): (Complete development)** I Developed the syllabus (approved) for this course according to the ABET and WASC acreditation requirements. This graduate course was offered and taught by me for the first time at CIT. Developed (Fall 2015) from the scratch all the lecture materials, assessment instruments including the project description, quizzes, assignments, midterm, and final exams. (Taught in Fall 2015, Spring 2016, Fall 2016, Fall 2017, Spring 2018, Fall 2019, Spring 2021, Fall 2022, Fall 2023, Fall 2024, Fall 2025)

- Content revised and taught:
    - **Sys. Anal. Modeling & Design (ITCO603): (Content revision – 50%)** This graduate course was revised by me by adding more chapters and modifying most of the other chapters with in-depth content. Also I developed project description, midterm and final exams. (Taught in Spring 2015).

Undergraduate Courses:

- Completely developed and taught:
    - **Business Intelligence (ISBP440): (Complete development)** I developed this course including all the lecture notes, project description, assignments, quizzes and exams. (Taught in Spring 2014).
    - **Secure Software Design and Engineering (ISEC323): (Complete development)** I developed the syllabus (approved) for this course according to the ABET and CAA accreditation requirements. This course was offered and taught by me for the first time at CIT. Developed from the scratch all the lecture materials, assessment instruments including the project description, quizzes, assignments, midterm, and final exams. (Taught every semester from Fall 2016 – Fall 2019, and Spring 2021-Fall 2025).
    - **AI for Cybersecurity (ISEC313): (Complete development)** I developed the syllabus (approved), and full content as per ABET and CAA accreditation requirements. This course will be taught for the first time as part in Fall 2026.

- Content revised and taught:
    - **Algorithms and Problem Solving (CSBP119): (Content revision – 20%)**. I have revised and restructured the materials to make it more suitable for beginners because it is an introductory Java programming course. (Taught in Fall 2020.)
    - **Object Oriented Programming (ITBP219): (Content revision – 50%)** I Significantly revised and revitalized all chapters and fully developed new lecture notes. Quizzes, midterm and final were made programming-intensive to develop strong programming skills in the students. I also introduced the "Term assignment" and "in-class assignments" to challenge students with hands on OOP intensive problems. (Taught each semester since Spring 2012 – Fall 2016).
    - **Security Principles and Practices (ITBP301): (Content revision – 30%)**. I Revised lecture materials and assessment instruments (e.g. homework, project, exam, quiz). (Taught in Fall 2012 and Spring 2017).
    - **Cryptographic Algorithms and Protocols (SECB310): (Content revision – 25%)**. I Revised lecture materials and assessment instruments. (Taught in Spring 2013).
    - **Machine Learning (CSBP411): (Content revision – 25%)**. I Revised lecture materials and assessment instruments. (Taught in Fall 2013).
    - **Data Structures (ITBP319): (Content revision – 25%)**. I Revised lecture materials and assessment instruments. (Taught in Fall 2014).
    - **Business Integration Lab 2 (ISBP433): (Syllabus development)** I Developed the syllabus including textbook, topical outlines, course outcomes to adapt the course with the state-of-the art and to conform to the ABET and WASC acreditation requirements.
    - **Network Security - I (ISEC311): (Content revision – 25%)**. I Revised lecture materials, created new hands on projects, and revised other assessment instruments. (Taught in each semester since Spring 2020 – Spring 2023).

– **Network Security - II (ISEC321): (Content revision – 20%)**. I Revised lecture materials, created new projects, and revised other assessment instruments. (Taught in Spring 2020, Fall 2020).
– Coordinated and Coordinating the following courses: Business Intelligence (ISBP440), Business Integration Lab2 (ISBP433), E-Commerce Security and Payment Protocols (ECBP413), Secure Software Design and Engineering (ISEC323), Data Analytics (ITBP420), Big Data Analytics (ITBP421), and Software Security (SECB624).

Laboratory and lab material development

- **Contributed to the development of lab content** and project description document, deliverables, and project development guidelines for the following courses: Object Oriented Programming (ITBP219), Machine Learning (CSBP411), Cryptographic Algorithms and Protocols (SECB310), Security Principles and Practices (ITBP301), Business Intelligence (ISBP440), Secure Software Design and Development (ISEC323), Software Security (SECB624), and Sys. Anal. Modeling & Design (ITCO603).

Curriculum Development

- **CIT reform proposal committee (2012-2013):** The committee drafted proposal for four new bachelors program, namely, Information Security, Computer Engineering, Information Technology, and Computer Science and the course curriculum for each program.
- **Bachelor in Information Security Program's curriculum development (2014-2015)** by developing syllabus (description, topics, textbook, outcome and mapping) for two undergraduate courses, namely, Secure Software Design and Engineering (ISEC323) and Database Scurity (ISEC417).
- **BS in IT program development (2016-2017):** Contributed to the BS in IT program development, and proposed courses for the data science major. Developed full syllabi of two courses: Data Analytics (ITBP 420) and Big Data Analytics (ITBP 421).
- **General Education Restructuring for all Bachelor Programs (2017-2018):** Contributed to the restructuring of the General Education courses for all BS program including BSc in IS, BSc. In IT, BSc. In CE and BSc. In CS. The restructuring was initiated to fulfill the requirements by accreditation bodies to include contemporary General Education courses such as Industry 4.0, Happyness and wellbeing, Natural Sciences, Sustainability and Innovation and Enterpreneurship. The proposed restructuring was approved by the Curriculumn Committee.
- **MS in Space Science program development (2018-2019):** As member of Executive Committee of MS in Space Science Program (2018-2022), I contributed to developing the MS in Space Science program that was offered for the first time in UAEU. This includes contributing to the full development proposal, discussion and development of different courses and the plan for course offerings, adding the approved courses to the curricunet. I developed the full course syllabus (including learning outcomes, weekly topical outline, and grading scheme) of the "Computation and Data Science (ISBP669)" course. The program has been approved in December 2018, and the first batch started from Spring 2021.
- **Ph.D. program proposal (2016-2017):** Contributed to the Ph.D. program proposal as member of Ph.D. Task Force, these include:
  – Contributed to the development of the Ph.D. self-study report.
  – Curriculum revision and creation of new specializations.
  – Developed three specialization course syllabi (ITPG602, ITBP710 and CSBP732).
  – Contributed to the curriculum revision of the Ph.D. program and the creation of new specialization courses descriptions.
- **MSc. IoT program proposal (2016-2017):** Contributed to the MSc in IoT program proposal review Reviewed the assigned sections of the proposal document and suggested modifications/editions as needed.
- **Biomedical Engineering and Informatics program development (2023-2024):** Developed the Biomedical Engineering and Informatics Program, which is going to be offered for the first time at UAEU. It consists of Faculty members from COI, College of IT, and College of Medical and Health Sciences.
- **Information Systems and Security department curricula restructuring (2020-2022):** As a member of the Adhoc committee of the department restructuring (2020-2022), I prepared a plan for the restructuring of the ISS department at the College of IT.

Program reviews and revisions: Contributed to program reviews and revisions.

- Contributed to BS IS program review (Fall 2017) and full revision of IS course Syllabi. In particular, these Syllabi were reviewed and modification suggested to refine the CLOs as per blooms taxonomy and CAA guidelines: IS program - ISEC 416, ISEC 417, ISEC 421, ISEC 422, ISEC 423 and ISEC 424; IT program: ITBP 103, ITBP 280, ITBP 301, ITBP 307 and ITBP 321.

- Conducted program review of IS and IT courses coordinated by me as part of the College-wide program review initiative. (Fall 2020).

Teaching load (recent six years including 2025-26):

Year	UG teaching load (Credit Hours)	Grad teaching load (Credit Hours)	Grad supervision load (Credit Hours)	Total load (Credit Hours)
2025-2026	19	3	6	28
2024-2025	21	3	6	30
2023-2024	23	3	8	34
2022-2023	23	3	9	35
2021-2022	21		6	27
2020-2021	22	3	6	31
Avg/year	**21.5**	**2.5**	**6.8**	**30.8**

Graduate student supervision

Current:
Main supervisor:

- Ph.D. Supervisor of Abubaker Suliman, CIT, UAEU
  Since Spring 2023, expected to graduate in Spring 2026
  Research focus: Optimizing Machine Learning for Cardiovascular Risk Prediction

- Ph.D. Supervisor of Tisa Selma, CIT, UAEU
  Since Fall 2021, expected to graduate in Spring 2026
  Research focus: user quality experience in multimedia streaming

- M.S. Supervisor of Wadima Alsaedi, CIT, UAEU
  Since Fall 2025, expected to graduate in Spring 2026
  Research focus: Indirect Prompt Injection Detection using Advanced ML

- M.S. Supervisor of Chowdhary Zia, CIT, UAEU
  Starting in Spring 2026, expected to graduate in Fall 2026
  Research focus: Novel Machine Learning Models for Malicious Encrypted Traffic Classification

Co-supervisor:

- Ph.D. Co-Supervisor of Namya Musthafa, CoE, UAEU
  Since Spring 2024, expected to graduate in Spring 2027
  Research focus: Brain tumor diagnosis from MRI images

- Ph.D. Co-Supervisor of Tariq Qayyum, CIT, UAEU
  Since Fall 2023.
  Research focus: Privacy Preserving Federated Learning for IoT

Graduated:
Main supervisor:

- Ph.D. Supervisor of Moomal Farhad, CIT, UAEU. Graduated: Fall 2023
  Title: A Data-Efficient Approach for Effective Diagnosis of Left Ventricular Hypertrophy from Echocardiography Modality

- Ph.D. Supervisor of Noura Al Nuaimi, CIT, UAEU. Graduated: Spring 2019
  Title: Streaming feature selection for big data.

- MS Thesis Supervisor of Hanan Alzubaidi, CIT, UAEU, Graduated: Fall 2025
  Title: Enhancing IT Security Management with an Advanced Intrusion Detection System based on Machine Learning and Explainable AI

- MS Thesis Supervisor of Omar Abdullah, CIT, UAEU, Graduated: Fall 2025
  Title: Enhanced Privacy Preserving Healthcare Data Management using Federated learning with homomorphic encryption.

- MS Thesis Supervisor of Ashika Aburashid, CIT, UAEU, Graduated: Fall 2024
  Title: A Secure and Effective Framework for Key Concept Mining from Educational Content using Large Language Models.

- MS Thesis Supervisor of Aysha AlKalbani, CIT, UAUE. Graduated: Spring 2023.
  Title: Cheating Detection in Online Exams based on Captured Video using Deep Learning

- MS (in Space Science) Thesis Supervisor of Shamma Al Jamali, CoS, UAEU. Graduated: Fall 2022
  Title: Orbit Propagation and Determination algorithms for satellite ground stations (Project in collaboration with Space Center, UAEU).
- MS Thesis Supervisor of Ahmad Alnajjar, CIT, UAEU. Graduated: Summer 2021.
  Title: Heart Rhythm Classification from Static and ECG time-series Data using Hybrid Multimodal Deep Learning
- MS Thesis Supervisor of Mohamed Saleh Al Maleki, CIT, UAEU. Graduated: Spring 2016
  Title: IDS performance enhancement with intelligent predictive deep packet inspection

Co-supervisor:
- Ph.D. Co-Supervisor of Heba Mahmoud Helal Attia, CIT, UAEU, Graduated Fall 2025
  Research focus: Optimizing Visualization of Streaming Data
- Ph.D. Co-Supervisor of Khaled Abdulla Al Rabaiei, CIT, UAEU, Graduated Fall 2022
  Research focus: Kano model integration with Data Mining
- M.S. Co-Supervisor of Hritik Mitra, MS in Space Science Program, UAEU, Graduated Spring 2025
  Research focus: Orbit propagation determination for non-functional GEO satellites

Member of Ph.D. Advisory Committee:
- Muhsina Ismail, CIT, UAEU, Graduated Fall 2025
  Research focus: Explainable AI in detecting XSS and SQL injection
- Henry Alexander Ignatious, CIT, UAEU, Graduated Summer 2024
  Research focus: Enhancing contextual awareness of autonomous vehicles
- Sumbal Malik, CIT, UAEU, Graduated Summer 2024
  Research focus: Level 5 Autonomous Driving
- Saleh Suleiman Alda'ajeh, CIT, UAEU, Graduated Spring 2024
  Research focus: Cloud Security Enforcement
- Wasif Khan, CIT, UAEU, Graduated Summer 2023
  Research focus: Data cleaning and explainable AI for effective clinical decision support.
- Alramzana Navaz, CIT, UAEU, Graduated Fall 2023
  Research focus: Cloud service quality enhancement
- Eman Abu Khousa, CIT, UAEU, Graduated Summer 2016
  Research focus: Intelligent learning environment
- Hind Al Falasi, CIT, UAEU, Graduated Fall 2016
  Research focus: Collaborative network of federated clouds using game theory

Senior Graduation Projects (capstone projects) Supervision

- AI Driven Satellite Imagery Analysis for Monitoring and Predicting Climate Change Effects. Fall 2025-Spring 2026. Number of students: 5
- InnerBloom: An AI-Powered Mental Health Monitoring and Support System for Depression and Anxiety. Fall 2024-Spring 2025. Number of students: 4
- Predicting Business Success using RiseRoot Application. Fall 2024-Spring 2025. Number of students: 4. Nominated for best senior project, Spring 2025 (Nominated for best senior project out of 42 projects).
- EVAA: An Email Virtual AI Assistant; An AI based virtual assistant to efficiently manage emails. Fall 2023-Spring 2024. Number students: 4
- Early psychological assessment from children's drawings. Fall 2023-Spring 2024. Number of students: 4. **Awarded best senior project** at CIT, UAEU, Spring 2024, among 35 projects. **Awarded best** poster presentation at the Zayed University Undergraduate Research Conference, 2024. Accepted for presentation at the 11th Undergraduate Students Research Conf., Abu Dhabi, May 2024. Extended version published at the AAAI-25 Conference in Philadelphia, USA, Feb 2025 (top AI conference, A* rating).
- Learning to utilize QC ahead of Y2Q; An initiative to spread the knowledge and expertise in Quantum Computing. Spring 2023-Fall 2023. Number of students: 5.
- Deepfake: Making and Breaking; Deep learning based fake video generation and detection. Fall 2022 - Spring 2023. Number of students: 5. Accepted for presentation at the 10th Undergraduate Students Research Conf., Abu Dhabi, May 2023.
- Mining Large-scale Twitter Data for Covid-19 Crisis Management: A tool using machine learning and Visualization technique utilizing Twitter data. Fall 2020 – Spring 2021. Number of students: 4. **Awarded 3rd**

best senior project at CIT, UAEU, Spring 2021. Accepted for presentation at the 8th Undergraduate Students Research Conf., Abu Dhabi, May 2021.

- Patient similarity computation for precision medicine: A machine learning based tool to find and visualize similar patients given EHR relevant data. Fall 2019-Spring 2020. Number of students: 4.
- A smart gluco-predictor for glucose conscious: A smartphone app for predicting blood sugar from meal picture. Spring 2019-Fall 2019. Number of students: 4
- The mission app: An educational space technology app for school children Fall 2017-Spring 2018. Total students: 5. **Awarded 2nd best senior project** at CIT, UAEU, Spring 2018.
- Continuous monitoring and emergency alarm system using wearable devices. Fall 2017-Spring 2018. Total students: 5
- Campus bus tracking application. Fall 2014-Spring 2015, Number of students: 3
- Prediction of chess match outcome from early moves. Spring 2014-Fall 2014, Number of students: 4. **Awarded best senior project** at CIT, UAEU, Fall 2014. **Awarded as one of the best three** research posters in the 2015 Annual UAEU students' conference. Accepted for presentation at the 3rd Undergraduate Students Research Conf., Abu Dhabi, May 2015. Extended version published at PAKDD 2015 (top Data Mining Conference, rating B)
- Forecasting world population using data mining. Fall 2013-Spring 2014, Number of students: 3
- Mining and analyzing social networks. Spring 2013-Fall 2013, Number of students: 4

Student Mentoring

Mentor, CIT computer programming teams
- Since 2013 I mentored at least four CIT computer programming teams (total 12 students).
- Encouraged them to solve new problems, conducted lecture sessions, practice sessions, online contests and on-site contests.
- One of the teams secured 5th position at the Gulf Programming Contest (GPC) 2015 and GPC 2014. Other two teams secured 8th and 9th positions at GPC 2015.
- Mentored students for participating in the University programming competitions: UPC Fall2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020 and Fall 2022.
- Mentored students for participating in the Gulf programming competitions: GPC 2016 (won 4th place).

Promoting Undergraduate Students' Research and Extracurricular Activities

- Supervised four student groups in 2022, 2023, 2024, and 2025, respectively, for the summer undergraduate research (SURE+) project (total 17 students), and three student groups in 2022, 2023, and 2025, respectively, (total ten students) for the SDG project. Four conference papers with the students have been published, and several others are in preparation.
- Encouraged Conference paper publication and presentation with students:
  - Two full-length papers published with undergraduate students in the IEEE International Conference on Innovations in IT, 2023. One of the papers was nominated for the best paper award.
  - One full-length paper published with undergraduate students at the AAAI International conference on Artificial Intelligence (Class A* conference, acceptance rate 16%), held in Philadelphia, USA, Feb 26-March 2, 2025.
  - Four posters with undergraduate students presented at the IEEE International Conference on Innovations in IT, 2023. One of the posters was awarded the best poster award (3rd position)
  - Best Poster paper with undergraduate students at the Undergraduate Research Conference (URC '24), Zayed University, Dubai, UAE, April 2024.
  - Supervised a group of undergraduate students to participate and exhibit posters in the UAEU annual undergraduate research conferences in 2023.
  - Supervised three groups of undergraduate students to present their work at the Undergraduate Research Competition (URC), in Abu Dhabi Univ., in Jun '21, and May '23, and May '24, respectively.
- Supervised student projects that were nominated by UAEU and presented at GITEX 2024 and GITEX 2025.

Student Advising
Advised about 20 undergraduate students each semester at CIT, UAEU.

Internship Supervision
Supervised about 60 intern students since Fall 2015.

UNIVERSITY AND COMMUNITY SERVICES

Selected CIT Committees/Services

- Chair, Faculty search committee, AY 2016-2017, 2015-2016
- Chair, Best senior project selection committee, Spring 2019
- Chair, Department assessment committee AY 2024-2025, 2023-2024, 2022-2023, 2021-2022, 2020-2021, 2019-2020,
- Chair, CIT Academic misconduct investigation committee, Fall 2020, Spring 2022.
- Chair, Grade appeal committee, Spring 2025
- Member, senior grad project CMT, AY 2018-2019, 2016-2017, 2015-2016, 2013-2014 & 2012-2013
- Member, College assessment committee, AY 2022-2023, 2021-2022, 2020-2021, 2019-2020
- Member, College curriculum committee, AY 2019-2020, 2018-2019
- Member, Faculty promotion committee, AY 2024-25, 2022-23, 2021-2022, 2020-2021, 2019-2020, 2016-2017
- Member, student recruitment committee, AY 2015-2016 & AY 2014-2015.
- Member, Faculty search committee, AY 2019-2018, 2017-2018, 2015-2016 & 2013-2014.
- Member, department search committee AY 2024-25, 2023-24, 2018-2019
- Member, Faculty evaluation committee, AY 2024-25, 2020-2021, 2014-2015.
- Member, college peer evaluation of teaching (PET) committee, AY 2017-2018, 2014-2015.
- Member, Faculty award committee, AY 2014-2015 & AY 2013-2014.

University Level Committees / Services

- Chair, University PET sub-committee, AY 2024-25, 2023-24.
- Chair, University PET sub-committee 2, AY 2021-2022.
- Chair, University PET sub-committee 20, AY 2020-2021.
- Member, University excellence award committee, AY 2022-2023.
- Member, University PET sub-committee 5, AY 2021-2022.
- Member, University PET sub-committee 9, AY 2021-2022.
- Member, University PET sub-committee 8, AY 2020-2021.
- Member, University Space Science and Technology Working Group, 2018-2019
  The working groups is an interdisciplinary academic and research group to promote space science in collaboration with the National Space Science and Technology Center (NSSTC).
- Member, judging committee, chancellor innovation award, 2024-25, 2023-24, 2022-2023, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018. Also served as the rapporteur of the same committee in 2020-2021, 2019-2020, and 2018-2019. Served as the rapporteur of the committee. Fully reviewed 50+ applications for the award, graded and commented. Discussed the reviews in committee meeting and discussed on the final grade of each application. Ranked the applicants and recommended the winners.
- Member, Executive Program Committee of the MS in Space Science Program, AY 2021-2022, 2020-2021, 2019-2020, 2018-2019. Intensely worked together with six other core faculty members of the committee to develop and launch the MS in Space Science program
- Member, Scientific Committee Board of Big Data Analytics Center, AY 2022-2023, 2021-2022, 2020-2021, 2019-2020. Served as the core faculty member that developed the center proposal. Conducted interview of 10+ candidates for three positions: senior data analyst, data engineer and senior developer, Oct-Nov 2020.

Accreditation Services (ABET and CAA)

- **Contributed to the development of Self Study Report (SSR) for ABET accreditation (2021-2022)** of the Bachelor in Information Security (BSIS) and Information Technology (BSIT) program in Spring 2022. Fulfilled all the activities assigned related to the development of the SSR report, criterion 4. This includes adding a description of the assessment process, curriculum alignment, assessment plan, description of different assessment tools, and a detailed discussion and explanation of attainment results. Also, added detailed evidence of continuous improvement, i.e., proof of improvement from one cycle to the next.

- **Contributed to the development of Self Study Report (SSR) for CAA accreditation (2022-2023)** of the Bachelor in Information Security (BSIS) and Information Technology (BSIT) program in Fall 2023. Fulfilled all the activities assigned related to the development of the SSR report, quality assurance section (standard 2). This includes a description of the quality assurance process through continuous quality enhancement using curriculum alignment, assessment plan, assessment tools, attainment results, and closing the loop. Also, added detailed evidence of continuous improvement, i.e., proof of improvement from one cycle to the next, as well as benchmarking with KPIs.

Other Selected UAEU Services

- Session Co-Chair, IIT-20 Conference, UAEU
- Program Co-Chair, IIT-18 Conference, UAEU
- Chair, Publication committee, IIT-16 Conference, UAEU
- Chair, IT Marathon, May, 2015, UAEU.
- Chair, IT4KIDS in IT Marathon, 2019, 2018, 2017 & 2014, UAEU.
- Problem setter and Judge, Univ. Prog. Contest (UPC)- every year since 2012
- Judge, IT Showcase, IT Marathon 2013 & 2012, Faculty of IT, UAEU
- Organized the CIT tour of high school and freshmen students at the CIT Open Day, Apr 22nd, 2015.
- Presented to CIT students an orientation of Enterprise Systems track at the Track Orientation Program, CIT, UAEU, 22ndOct 2014.
- Led a team of 20 students to the "Industry Walk" event held at UAEU, February 25th, 2013.
- Examiner of Senior Graduation Projects, College of IT, UAEU, each semester since Fall 2012.
- Conducted mock interview of 8 graduating students, College of IT, UAEU, January 8th, 2013.
- Contributed to the "college reform" report by writing parts of the "Proposal for Information Security program", College of IT, UAEU, Dec 2012.

Other Selected Services Outside UAEU

- Problem setter and Judge, Gulf Programming Contest (GPC '22), Sultan Qaboos Univ., Oman, 1-2 Nov, 2022
- Problem setter and Judge, GPC '19, Sultan Qaboos Univ., Oman, March 30-April 1, 2019
- Problem setter and Judge, GPC '18, Zayed University, UAE, March 21-22, 2018
- Problem setter and Judge, GPC '17, Gulf University of Science & Tech, Kuwait, March 22-23, 2017
- Problem setter and Judge, GPC '16, Gulf University of Science & Tech, Kuwait, March 23-24, 2016
- Problem setter and Judge, GPC '15, American University of Dubai, UAE, March 25-26, 2015
- Problem setter and Judge, GPC '14, American University of Dubai, UAE, March 19–20, 2014.
- Problem setter and Judge, GPC '13, Khalifa University, Abu Dhabi, UAE, March 13–14, 2013.
- Problem setter and Judge, GPC '12, Khalifa University, Abu Dhabi, UAE, March 14-15, 2012.

Professional Development

- Certified "No Code AI and Machine Learning" Online Program from MIT Professional Education. Nov 2025.
- Attended Faculty Workshop: "Deep Learning for Healthcare Image Analysis", CIT, UAEU, Dec 11, 2019.
- Attended in Faculty Workshop: "Flipped teaching", CIT, UAEU, Jan 23rd, 2014.
- Participated in the Workshop: "Digital classroom with iPad", College of IT, UAEU, Feb 21st, 2013.
- Participated in Faculty Workshop: "Conducting Effective Job Interviews", College of Engineering, UAEU, Jan 16th, 2013.
- Attended a tutorial on smart board, College of IT, Sep 5th, 2012.

OTHER ACHIEVEMENTS

Awards in Programming Competitions:

As a trainer (Faculty):
- Gulf programming competition (GPC), Mar 2014 – *5th place* (among 40+ teams from 6 Arab Gulf countries)
- GPC, Mar 2015 – *5th, 9th and 12th places* (among 40+ teams from 6 Arab Gulf countries)
- GPC, Mar 2016 – *4th place* (among 40+ teams from 6 Arab Gulf countries)
- GPC, Nov 2022 – *9th and 10th places* (among 40+ teams from 6 Arab Gulf countries)
- ACM-ICPC*, Asia Regional-Dhaka, October 2004 - *Champion* (among 70+ teams from different countries in the sub-continent and China)
- ACM-ICPC, World Finals-Shanghai, China, April 2005 – *29TH place* (among 90+ teams from many universities worldwide).

As a contestant (Undergrad student):
International Competitions
- ACM-ICPC*, Asia Regional-Dhaka, November 1998-*Champion* (among 40+ teams from Bangladesh, India, Sri Lanka, Pakistan, and Iran.). Advanced to the World Finals 1999.
- ACM-ICPC, World Finals-Eindhoven, the Netherlands, April 1999 - Honorable mention (Among 62 teams from universities all over the world).
- ACM-ICPC, Asia Regional-Dhaka, November 1999- *4th place*.
- ACM-ICPC, Asia Regional-Kanpur, India, December 2000- *2nd Runner up*.

National Competitions
- National Computer Programming Contest (NCPC) -Dhaka, August 1998- *4th place* (among 40+ teams).
- Computer Jagat & JOBS USAID Contest-Dhaka, September 2000-*Champion* (among 50+ teams).
- National Computer Programming Contest (NCPC) -Dhaka, October 2000-*5th place* (among 40+ teams).

(*Association for Computing Machinery-International Collegiate Programming Contest)