

Abdullatif Albaseer

Ph.D. in Computer Science and Engineering

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[Google Scholar](#) • [Scopus](#) • [Web of Science](#) • [IEEE Xplore](#) • [Website](#) • [LinkedIn](#)

Research Profile

Researcher in **computer networks, network security, and artificial intelligence for next-generation communication systems**. My work develops resource-efficient and trustworthy learning frameworks—spanning **federated and edge learning, semantic communication, and large-language-model-driven network orchestration**—for wireless and 5G/6G edge networks, with a sustained focus on **cybersecurity for smart grids and critical infrastructure** (intrusion and anomaly detection, honeypot orchestration, and adversarial-attack defense). I formulate joint learning-and-networking problems as optimization and deep-reinforcement-learning tasks, targeting energy efficiency, fair resource allocation, device scheduling, and convergence in heterogeneous wireless edge environments. My record comprises **28 peer-reviewed journal articles** and **29 peer-reviewed conference papers** in leading IEEE venues and **six granted US patents** (893 citations, h-index 16; source: HBKU Pure/PlumX, 23 July 2026). I have co-supervised PhD and MSc researchers and taught graduate courses in wireless network security and computer networks.

Research Interests

Core: Computer networks; network and communication security; AI/ML for communications; federated and distributed learning at the wireless edge.

Applied: Semantic communications; 5G/6G and next-generation networks; LLM-driven network orchestration; deep reinforcement learning for resource allocation; energy-efficient edge intelligence.

Security: Intrusion and anomaly detection; adversarial machine learning; honeypot-based defense; smart-grid and critical-infrastructure protection (IEC 60870-5-104, IEC 61850/GOOSE); IoT security.

Education

Ph.D., Computer Science and Engineering 2018–2022

Hamad Bin Khalifa University, Doha, Qatar

Thesis: Federated Learning Framework over Wireless Edge Networks — Optimizing Resources and Learning Algorithms.

Ph.D. Coursework, Computer Engineering 2017–2018

King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

Completed six doctoral courses in computer networks and security before transferring to HBKU.

M.Sc. (with Honors), Computer Networks 2014–2017

King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

Thesis: Performance Evaluation of Node Placement Schemes for Pipeline Monitoring Using Resource-Constrained Wireless Networks.

B.Sc., Computer Science 2006–2009

Thamar University, Thamar, Yemen

Project: Enhancing the AODV Routing Protocol for Wireless Ad Hoc Networks.

Research Impact

Metrics: 893 citations • h-index 16 (Source: HBKU Pure/PlumX, accessed 23 July 2026)

Output: 28 peer-reviewed journal articles • 29 peer-reviewed conference papers • 6 granted US patents • 1 US patent application

Academic and Research Experience

Postdoctoral Research Fellow

2022–2025

Hamad Bin Khalifa University, Doha, Qatar

Division of Computing and Electrical Engineering, College of Science and Engineering. Led research on federated/edge learning, semantic communication, LLM-driven network orchestration, and smart-grid cybersecurity; co-supervised graduate researchers and directed laboratory activities.

Visiting Scholar

2022–2023

Smart Grid Lab, Texas A&M University at Qatar, Doha, Qatar

Collaborative research on machine-learning-based detection and defense for smart-grid communication systems.

Graduate Research Assistant

2018–2022

Hamad Bin Khalifa University, Doha, Qatar

Doctoral research on optimizing resources and learning algorithms for federated learning over wireless edge networks; developed client-selection, data-selection, and energy-efficiency frameworks.

ABET Accreditation Assistant

2020–2022

Hamad Bin Khalifa University, Doha, Qatar

Compiled self-study (SSR) materials and supported continuous-improvement and FCAR assessments.

Teaching Experience

Instructor — Wireless Network Security (graduate)

Spring 2024

Hamad Bin Khalifa University, Doha, Qatar

Teaching Assistant — Computer Networks; Data Structures and Algorithms

2018–2019

Hamad Bin Khalifa University, Doha, Qatar

Computer Networks (Fall 2018, Fall 2019); Data Structures and Algorithms (Spring 2019). Supervisor: Prof. Ala Al-Fuqaha.

Teaching Assistant — Faculty of Science and Education

2010–2012

Thamar University, Thamar, Yemen

Peer-Reviewed Journal Articles

Author name in **bold**; listed reverse-chronologically.

- J1. M. Hamood, **A. Albaseer**, H. El-Sallabi, M. Abdallah, A. Al-Fuqaha, and B. Hamdaoui, "Personalized Federated Learning with Adaptive Transformer Pruning and Hypernetwork-Driven Personalization in Wireless Networks," *IEEE Trans. Machine Learning in Communications and Networking*, vol. 4, pp. 1–16, 2026. DOI:10.1109/TMLCN.2025.3637083.
- J2. M. Al-Mehdhar, **A. Albaseer**, M. Abdallah, S. Al-Kuwari, and A. Al-Fuqaha, "Stealthy Shields: Adversarial DRL Intelligence for Securing EV Charging Communication Systems," *IEEE Open J. Communications Society*, vol. 7, pp. 3060–3077, 2026. DOI:10.1109/OJCOMS.2026.3677183.
- J3. M. Al-Fehani, **A. Albaseer**, and S. Al-Kuwari, "TFD-Video: Threshold-Aware Federated Deepfake Detection for Video Forensics," *IEEE Access*, vol. 14, pp. 23264–23278, 2026. DOI:10.1109/ACCESS.2026.3660914.
- J4. H. Saadat, **A. Albaseer**, M. Abdallah, A. Mohamed, and A. Erbad, "SemCom-OPTIMA: Empirically-Driven Optimization of Semantic Image Transmission across Heterogeneous Edge-Cloud Systems," *IEEE Open J. Computer Society*, 2025. DOI:10.1109/OJCS.2025.3642047.
- J5. A. Qayyum, **A. Albaseer**, J. Qadir, A. Al-Fuqaha, and M. Abdallah, "LLM-Driven Multi-Agent Architectures for Intelligent Self-Organizing Networks," *IEEE Network*, 2025.
- J6. A. N. Alkuwari, **A. Albaseer**, S. Al-Kuwari, and M. Qaraqe, "Robust ConvLSTM Model with Deep Reinforcement Learning for Stealth Attack Detection in Smart Grids," *IEEE Open J. Industrial Electronics Society*, vol. 6, pp. 1298–1311, 2025.

- J7. M. Adam, **A. Albaseer**, U. Baroudi, and M. Abdallah, "Survey of Multimodal Federated Learning: Exploring Data Integration, Challenges, and Future Directions," *IEEE Open J. Communications Society*, vol. 6, pp. 2510–2538, 2025.
- J8. N. Abouelenen, Y. Bello, **A. Albaseer**, A. R. Hussein, M. Abdallah, and E. Hossain, "Distributed Traffic Control in Complex Dynamic Roadblocks: A Multi-Agent Deep Reinforcement Learning Approach," *IEEE Trans. Intelligent Transportation Systems*, 2025. DOI:10.1109/TITS.2025.3591961.
- J9. M. Hamood, **A. Albaseer**, M. Abdallah, and A. Al-Fuqaha, "Efficient Data Labeling and Optimal Device Scheduling in HWNs Using Clustered Federated Semi-Supervised Learning," *IEEE Trans. Communications*, 2024.
- J10. **A. Albaseer**, N. Abdi, M. Abdallah, M. Qaraqe, and S. Al-Kuwari, "FedPot: A Quality-Aware Collaborative and Incentivized Honeypot-Based Detector for Smart Grid Networks," *IEEE Trans. Network and Service Management*, vol. 21, no. 4, pp. 4844–4860, 2024.
- J11. M. Almehdhar, **A. Albaseer**, M. A. Khan, M. Abdallah, H. Menouar, S. Al-Kuwari, and A. Al-Fuqaha, "Deep Learning in the Fast Lane: A Survey on Advanced Intrusion Detection Systems for Intelligent Vehicle Networks," *IEEE Open J. Vehicular Technology*, vol. 5, pp. 869–906, 2024.
- J12. N. Abdi, **A. Albaseer**, and M. Abdallah, "The Role of Deep Learning in Advancing Proactive Cybersecurity Measures for Smart Grid Networks: A Survey," *IEEE Internet of Things Journal*, vol. 11, no. 9, pp. 16398–16421, 2024.
- J13. **A. Albaseer**, U. Baroudi, and S. Selim, "Recursive Clustering Approach for Wireless Sensor Networks in Pipeline Monitoring Application," *IEEE Sensors Journal*, vol. 24, no. 17, pp. 28154–28163, 2024.
- J14. **A. Albaseer**, A. M. Seid, M. Abdallah, A. Al-Fuqaha, and A. Erbad, "Novel Approach for Curbing Unfair Energy Consumption and Biased Model in Federated Edge Learning," *IEEE Trans. Green Communications and Networking*, vol. 8, no. 2, pp. 865–877, 2024.
- J15. M. Hamood, **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Mohamed, "Optimized Federated Multitask Learning in Mobile Edge Networks: A Hybrid Client Selection and Model Aggregation Approach," *IEEE Trans. Vehicular Technology*, vol. 73, no. 11, pp. 17613–17629, 2024.
- J16. H. Teryak, **A. Albaseer**, M. Abdallah, S. Al-Kuwari, and M. Qaraqe, "Double-Edged Defense: Thwarting Cyber Attacks and Adversarial Machine Learning in IEC 60870-5-104 Smart Grids," *IEEE Open J. Industrial Electronics Society*, vol. 4, pp. 629–642, 2023.
- J17. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Erbad, "Data-Driven Participant Selection and Bandwidth Allocation for Heterogeneous Federated Edge Learning," *IEEE Trans. Systems, Man, and Cybernetics: Systems*, 2023.
- J18. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, A. Mohammed, A. Erbad, and O. A. Dobre, "Fair Selection of Edge Nodes to Participate in Clustered Federated Multitask Learning," *IEEE Trans. Network and Service Management*, 2023.
- J19. M. H. Mahmoud, **A. Albaseer**, M. Abdallah, and N. Al-Dhahir, "Federated Learning Resource Optimization and Client Selection for Total Energy Minimization under Outage, Latency, and Bandwidth Constraints with Partial or No CSI," *IEEE Open J. Communications Society*, 2023.
- J20. A. M. Seid, A. Erbad, H. N. Abishu, **A. Albaseer**, M. Abdallah, and M. Guizani, "Blockchain-Empowered Resource Allocation in Multi-UAV-Enabled 5G-RAN: A Multi-Agent Deep Reinforcement Learning Approach," *IEEE Trans. Cognitive Communications and Networking*, 2023.
- J21. A. M. Seid, A. Erbad, H. N. Abishu, **A. Albaseer**, M. Abdallah, and M. Guizani, "Multi-Agent Federated Reinforcement Learning for Resource Allocation in UAV-Enabled Internet of Medical Things Networks," *IEEE Internet of Things Journal*, 2023.
- J22. M. Hamood, **A. Albaseer**, M. Abdallah, and A. Al-Fuqaha, "Clustered and Multi-Tasked Federated Distillation for Heterogeneous and Resource-Constrained Industrial IoT Applications," *IEEE Internet of Things Magazine*, vol. 6, no. 2, pp. 64–69, 2023.

- J23. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, A. Erbad, and O. A. Dobre, "Semi-Supervised Federated Learning over Heterogeneous Wireless IoT Edge Networks: Framework and Algorithms," *IEEE Internet of Things Journal*, vol. 9, no. 24, pp. 25626–25642, 2022.
- J24. M. Ez Eddin, **A. Albaseer**, M. Abdallah, S. Bayhan, M. K. Qaraqe, S. Al-Kuwari, and H. Abu-Rub, "Fine-Tuned RNN-Based Detector for Electricity Theft Attacks in Smart Grid Generation Domain," *IEEE Open J. Industrial Electronics Society*, vol. 3, pp. 733–750, 2022.
- J25. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Erbad, "Fine-Grained Data Selection for Improved Energy Efficiency of Federated Edge Learning," *IEEE Trans. Network Science and Engineering*, vol. 9, no. 5, pp. 3258–3271, 2021.
- J26. **A. Albaseer** and U. Baroudi, "Cluster-Based Node Placement Approach for Linear Pipeline Monitoring," *IEEE Access*, vol. 7, pp. 92388–92397, 2019.
- J27. **A. Albaseer** and U. Baroudi, "Node Placement Approaches for Pipelines Monitoring: Simulation and Experimental Analysis," *Int. J. Sensor Networks*, vol. 29, no. 3, pp. 147–158, 2019.
- J28. **A. Albaseer**, G. Bin Talib, and A. Bawazir, "Multi-Hop Wireless Network: A Comparative Study of Routing Protocols Using the OMNeT++ Simulator," *J. Ubiquitous Systems & Pervasive Networks*, vol. 7, no. 1, pp. 29–34, 2016.

Peer-Reviewed Conference Papers

- C1. **A. Albaseer**, E. Bentafat, M. Hamood, M. Abdallah, A. Al-Fuqaha, and M. Hamdi, "Think Fast, Infer Smart: A Hybrid Distributed LLMs Inference at the Wireless Edge," *IEEE Int. Symp. Personal, Indoor and Mobile Radio Communications (PIMRC)*, 2025.
- C2. R. Al-Sabri, **A. Albaseer**, M. Abdallah, and A. Al-Fuqaha, "ADMGNAS: Attention-Based Dynamic Multiview Spatiotemporal Graph Neural Architecture Search for Traffic Prediction in Smart City," *IEEE PIMRC*, 2025.
- C3. M. Almehdhar, **A. Albaseer**, A. Al-Fuqaha, and M. Abdallah, "Silent Threats, Smart Shields: A Dual-Strategy Framework against Stealthy Attacks in EV Charging Systems," *IEEE PIMRC*, 2025.
- C4. M. Hamood, **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and B. Hamdaoui, "Train Without Strain: Adaptive Pruning and Hypernetwork Personalization for Federated Transformers," *IEEE Int. Conf. Communications (ICC)*, 2025, pp. 3575–3580.
- C5. E. Bentafat, N. Lasla, **A. Albaseer**, and M. Abdallah, "A Lightweight Committee-Based Approach for Privacy-Preserving Federated Learning," *IEEE Consumer Communications & Networking Conf. (CCNC)*, Las Vegas, USA, 2025.
- C6. **A. Albaseer**, M. Hamood, and M. Abdallah, "Adaptive Honeypot Defense Deployment: A Stackelberg Game Approach with Decentralized DRL for AMI Protection," *Int. Conf. Computing, Networking and Communications (ICNC)*, 2024, pp. 1–5.
- C7. M. Hamood, **A. Albaseer**, M. Abdallah, and A. Al-Fuqaha, "Empowering HWNs with Efficient Data Labeling: A Clustered Federated Semi-Supervised Learning Approach," *IEEE Int. Wireless Communications and Mobile Computing Conf. (IWCMC)*, 2024.
- C8. M. Al-Mehdhar, **A. Albaseer**, M. Abdallah, and A. Al-Fuqaha, "Charging Ahead: A Hierarchical Adversarial Framework for Counteracting Advanced Cyber Threats in EV Charging Stations," *IEEE Vehicular Technology Conf. (VTC2024-Spring)*, 2024.
- C9. H. A. Saadat, **A. Albaseer**, M. Abdallah, A. Mohamed, and A. Erbad, "Energy-Aware Service Offloading for Semantic Communications in Wireless Networks," *IEEE ICC*, 2024, pp. 5467–5472.
- C10. **A. Albaseer** and M. Abdallah, "Tailoring Semantic Communication at the Network Edge: A Novel Approach Using Dynamic Knowledge Distillation," *IEEE ICC*, 2024, pp. 1455–1460.
- C11. **A. Albaseer** and M. Abdallah, "DRL-Based Federated Uncertainty-Guided Semi-Supervised Learning for Network Traffic Selection and Threshold Determination in ZSM," *IEEE Global Communications Conf. (GLOBECOM)*, Kuala Lumpur, Malaysia, 2023.

- C12. **A. Albaseer**, M. Abdallah, and A. Al-Fuqaha, "Exploiting the Divergence between Output of ML Models to Detect Adversarial Attacks in Streaming IoT Applications," *IEEE ICC*, Rome, Italy, 2023.
- C13. M. Hamood, **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Mohamed, "Intelligent Model Aggregation in Hierarchical Clustered Federated Multitask Learning," *IEEE GLOBECOM*, 2023.
- C14. A. Elmasry, **A. Albaseer**, and M. Abdallah, "OpenPLC and lib61850 Smart Grid Testbed: Performance Evaluation and Analysis of GOOSE Communication," *Int. Symp. Networks, Computers and Communications (ISNCC)*, 2023.
- C15. S. Ponpura Sathar, S. Al-Kuwari, **A. Albaseer**, M. Qaraqe, and M. Abdallah, "Mitigating IEC-60870-5-104 Vulnerabilities: Anomaly Detection in Smart Grid Based on LSTM Autoencoder," *ISNCC*, 2023.
- C16. **A. Albaseer** and M. Abdallah, "Privacy-Preserving Honey-pot-Based Detector in Smart Grid Networks: A New Design for Quality-Assurance and Fair-Incentives Federated Learning Framework," *IEEE CCNC*, 2023, pp. 722–727.
- C17. **A. Albaseer** and M. Abdallah, "Fine-Tuned LSTM-Based Model for Efficient Honey-pot-Based Network Intrusion Detection System in Smart Grid Networks," *Int. Conf. Communications, Signal Processing, and their Applications (ICCSPA)*, 2022, pp. 1–6.
- C18. M. Ezeddin, **A. Albaseer**, M. Abdallah, S. Bayhan, M. Qaraqe, and S. Al-Kuwari, "Efficient Deep Learning-Based Detector for Electricity Theft Generation System Attacks in Smart Grid," *Int. Conf. Smart Grid and Renewable Energy (SGRE)*, 2022, pp. 1–6.
- C19. A. Mohammed, H. N. Abishu, **A. Albaseer**, A. Erbad, M. Abdallah, and M. Guizani, "FDRL Approach for Association and Resource Allocation in Multi-UAV Air-to-Ground IoMT Networks," *IEEE GLOBECOM*, 2022, pp. 1417–1422.
- C20. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Erbad, "Balanced Energy Consumption Based on Historical Participation of Resource-Constrained Devices in Federated Edge Learning," *IEEE IWCMC*, 2022, pp. 300–305.
- C21. S. Tabatabai, I. Mohammed, B. Qolomany, **A. Albaseer**, K. Ahmad, M. Abdallah, and A. Al-Fuqaha, "Exploration and Exploitation in Federated Learning to Exclude Clients with Poisoned Data," *IEEE IWCMC*, 2022, pp. 407–412.
- C22. M. Dhuheir, **A. Albaseer**, E. Baccour, A. Erbad, M. Abdallah, and M. Hamdi, "Emotion Recognition for Healthcare Surveillance Systems Using Neural Networks: A Survey," *IEEE IWCMC*, 2021, pp. 681–687.
- C23. A. Alwarafy, **A. Albaseer**, B. S. Ciftler, M. Abdallah, and A. Al-Fuqaha, "AI-Based Radio Resource Allocation in Support of the Massive Heterogeneity of 6G Networks," *IEEE 5G World Forum (5GWF)*, 2021, pp. 464–469.
- C24. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Erbad, "Client Selection Approach in Support of Clustered Federated Learning over Wireless Edge Networks," *IEEE GLOBECOM*, Madrid, Spain, 2021.
- C25. **A. Albaseer**, M. Abdallah, A. Al-Fuqaha, and A. Erbad, "Threshold-Based Data Exclusion Approach for Energy-Efficient Federated Edge Learning," *IEEE ICC Workshops*, 2021, pp. 1–6.
- C26. B. S. Ciftler, **A. Albaseer**, N. Lasla, and M. Abdallah, "Federated Learning for RSS Fingerprint-Based Localization: A Privacy-Preserving Crowdsourcing Method," *IEEE IWCMC*, 2020, pp. 2112–2117.
- C27. **A. Albaseer**, B. S. Ciftler, M. Abdallah, and A. Al-Fuqaha, "Exploiting Unlabeled Data in Smart Cities Using Federated Edge Learning," *IEEE IWCMC*, 2020, pp. 1666–1671.
- C28. **A. Albaseer**, B. S. Ciftler, and M. M. Abdallah, "Performance Evaluation of Physical Attacks against E2E Autoencoder over Rayleigh Fading Channel," *IEEE Int. Conf. Informatics, IoT, and Enabling Technologies (ICIoT)*, 2020, pp. 177–182.
- C29. U. Baroudi and **A. Albaseer**, "Anomaly-Resilient Node Placement Approach for Pipelines Monitoring," *IEEE IWCMC*, 2017, pp. 311–316.

- P1. A. Abdallah, **A. Albaseer**, A. Celik, M. Abdallah, and A. M. Eltawil, "NETORCHLLM: Mastering Wireless Network Orchestration with Large Language Models," *arXiv preprint arXiv:2412.10107*, 2024.

Patents

Granted (US):

1. U. Baroudi and **A. Albaseer**, "Wireless Sensor Network for Pipeline Fluid Leakage Measurement," US Patent 11,546,857, Jan. 3, 2023.
2. Q. A. Drmosh, Z. H. Yamani, A. K. Mohamedkhair, A. H. Hendi, M. K. Hossain, and **A. Albaseer**, "Room-Temperature Nitrogen Dioxide Gas Sensor," US Patent 11,119,066, Sep. 14, 2021.
3. U. Baroudi and **A. Albaseer**, "Node Placement for Pipeline Monitoring," US Patent 10,631,245, Apr. 21, 2020.
4. U. Baroudi, **A. Albaseer**, and S. Selim, "Method for Power Consumption Reduction in a Wireless Linear Network," US Patent 10,602,327, Mar. 24, 2020.
5. U. Baroudi, **A. Albaseer**, and S. Selim, "Rotating Cluster Head Wireless Network for Pipeline Monitoring," US Patent 10,602,328, Mar. 24, 2020.
6. U. Baroudi, **A. Albaseer**, and S. Selim, "Equal Distance Different Members Node Placement Method and System," US Patent 10,425,788, Sep. 24, 2019.

Pending:

1. U. Baroudi and **A. Albaseer**, "Method for Leak Detection in a Fluid-Carrying Pipeline," US Patent Application 16/794,638, 2020.

Research Supervision and Mentoring

Doctoral (co-supervision): **Danya Saifaddin** (2021–2024) — *Deep Reinforcement Learning Based Intelligent Reflecting Surface Assisted Secure Hybrid Visible Light and Millimeter-Wave Communications*. Two journal papers.

Master's (co-supervision): **Maymouna Ezzaddin** (2021–2022) — *Efficient Deep Learning Based Detector for Electricity Theft in Smart Grid Generation Systems*. One journal + one conference paper.

Hadir Teryak (2022–2023) — *Efficient Deep Learning Based Detector for Honey-pot Orchestration: Modbus and IEC Protocols* (defended 28 Mar. 2023). One journal paper.

Sajath Ponpura Sathar (2022–2023) — *Adversarial Attacks in Substation Smart Grid Networks: Data Generation and Defense Strategies*. One conference paper.

Ahmed Elmasry (2023–2024) — *Simulation Testbeds for the IEC 61850 GOOSE Protocol: Enhancing Cybersecurity in Substations and Smart Grids*. One conference paper.

Khalfan Al-Ali (2023–2024) — *Combining Lightweight Models with GANs for Intrusion Detection in the IEC 104 Smart Grid Protocol*.

Selected Talks and Tutorials

- **Tutorial (co-presenter):** "Advancing the Frontiers of Semantic Communication: Techniques, Applications, and Future Prospects," IEEE IWCMC, 2023.
- Conference presentations at IEEE ICC (2023), IEEE CCNC (2023), ICCSPA (2022), IEEE IWCMC (2022), IEEE GLOBECOM (2021), and IEEE ICC Workshops (2021).
- Poster: "Artificial Intelligence in Smart Cities: Share Knowledge, Not Data," HBKU Research Day, 2022.

Professional Service

Journal Reviewer: IEEE Transactions on Mobile Computing; Wireless Communications; Network and Service Management; Network Science and Engineering; Information Forensics and Security; Neural Networks and Learning Systems; Intelligent Transportation Systems; Services Computing; Cognitive Communications and Networking; Systems, Man, and Cybernetics; Big Data; Artificial Intelligence; and Machine Learning in Communications and Networking. Also: IEEE Communications Letters, IEEE Networking Letters, IEEE Open Journal of the Communications Society, IEEE Internet of Things Magazine, Journal of Network and Computer Applications, and Decision Analytics Journal.

Conference Reviewer: IEEE GLOBECOM; IEEE WCNC; IEEE PIMRC; ICCSPA.

Technical Skills

Programming: Python, C/C++, C#, Java, MATLAB.

ML / DL Frameworks: PyTorch, TensorFlow, Keras, scikit-learn.

Federated Learning: TensorFlow Federated (TFF), PySyft, LEAF, FATE.

Networks & Security: Smart-grid protocols (IEC 60870-5-104, IEC 61850/GOOSE, Modbus); honeypot and intrusion-detection testbeds; OpenPLC, lib61850; wireless technologies (Wi-Fi, Zigbee, LoRa, Bluetooth, 6LoWPAN).

Simulation & Tools: OMNeT++, network simulation, Git, $\text{\LaTeX}$.

Data & Systems: MySQL, Oracle, Firebase; edge/cloud experimentation.

Scholarships and Awards

2018: Ph.D. Scholarship, Hamad Bin Khalifa University (Computer Science and Engineering).

2017: Ph.D. Scholarship, King Fahd University of Petroleum and Minerals (Computer Engineering).

2014: Graduate (M.Sc.) Scholarship, King Fahd University of Petroleum and Minerals (Computer Networks).

Selected Certifications

2020: Deep Learning Specialization (five courses), DeepLearning.AI / Coursera.

2020: Mathematics for Machine Learning: Linear Algebra; Bayesian Statistics; Data Science in Python.

2020: Cybersecurity, Cisco Networking Academy.

Languages

Arabic: Native.

English: Professional working proficiency.

References

Prof. Mohamed Abdallah — Professor, College of Science and Engineering, Hamad Bin Khalifa University, Doha, Qatar. moabdallah@hbku.edu.qa.

Prof. Ala Al-Fuqaha — Professor and Associate Provost for Teaching & Learning, Hamad Bin Khalifa University, Doha, Qatar. aalfuqaha@hbku.edu.qa.

Prof. Aiman Erbad — Professor and VP for Research and Graduate Studies, Qatar University, Doha, Qatar. aerbad@qu.edu.qa.