

Faculty C.V.

1. **Name**

Marwa Sharawi

2. **Academic Rank**

Assistant Professor - Fulltime

3. **Degrees**

- Ph.D. Information Technology, Cairo University, Egypt, 2015.
- M.Sc. Information Technology, Cairo University, Egypt, 2008.
- B.Sc. Information Technology, Cairo University, Egypt, 2005.

4. **Service at this Institution**

Leadership and coordination

- Founder, Cybersecurity Club, 2026
- Local Lead, NASA Space Apps Challenge–Kuwait, 2024–present
- ChatGPT Champion, College of Engineering and Applied Sciences, 2024–present
- Coordinator, Computer Science Capstone Projects (CSIS 490/491), 2023–2024

Student supervision and advising

- Supervisor, Computer Science Capstone Projects (CSIS 490/491), 2022–present
- Academic Advisor, Computer Science and Information Systems programs, 2023–present
- Supervisor, Student Research Mentorship, 2024–2025
- Supervisor, Student Internships, Computer Science Program, 2022–2023
- Proctor and Supervisor, IEEEExtreme Programming Competition 17.0, 2023–2024
- Mentor and supervisor of student teams participating in cybersecurity Capture-the-Flag competitions

Committee service

- Member, Grade Appeals Committee, 2024–present
- Member, Academic Quality Committee, College of Engineering and Applied Sciences, 2023–present
- Member, CSIS 120, CSIS 130, and CSIS 210 Ad Hoc Committee, 2024–2025
- Member, CEAS Capstone Exhibition Committee, 2023–2024
- Member, ABET Accreditation Committee, Computer Science Program, 2022–2023

Conference and event service

- Chair, Organizing Committee, NASA International Space Apps Challenge–Kuwait, 2024–present
- Member, Organizing Committee, NASA International Space Apps Challenge–Kuwait, 2022
- Member, Organizing Committee, IEEE Global Engineering Education Conference (EDUCON 2023), 2023
- Session Chair, IEEE Global Engineering Education Conference (EDUCON), 2023
- Session Chair, Seventh International Conference on Computer-Human Interaction Research and Applications (CHIRA), 2023

5. **Professional Experience** *(Related experience in other institutions: include locations and dates.)*

- Assistant Professor, American University of Kuwait, 2023–Present
- Visiting Assistant Professor, American University of Kuwait, 2021–2023
- Adjunct Assistant Professor, American University of Kuwait, 2018–2021
- Local Dean, Arab Open University–Egypt, 2016–2017
- Assistant Professor, Arab Open University–Egypt, 2016–2017
- Lecturer, Arab Open University–Egypt, 2011–2016
- Adjunct Lecturer, BUE, Middlesex University Dubai, and University of Sharjah, 2010–2011
- Teaching Assistant, BUE and Modern Sciences and Arts University, 2005–2008

6. **Professional Registration**

Professional Credentials and Membership

- Certified Professional Trainer, Institute of Leadership and Management (ILM), United Kingdom
- CITI Program Certificate, Social-Behavioral-Educational Research—Comprehensive
- Member, Institute of Electrical and Electronics Engineers (IEEE), 2022–Present

Editorial and Scholarly Service

- Session Chair, IEEE Global Engineering Education Conference (EDUCON), 2026
- Member, Program Committee, Special Track on Computational Intelligence in Medical Imaging, 39th IEEE International Symposium on Computer-Based Medical Systems, 2026
- Section Editor for Linear Programming, Encyclopedia of Engineering Optimization and Heuristics, Springer, 2026
- Associate Editor, ICCK Transactions on Swarm and Evolutionary Learning, 2024–2025
- Editor and Editorial Board Member, Encyclopedia of Engineering Optimization and Heuristics, Springer, 2024–2025
- Reviewer, International Journal of Imaging Systems and Technology (Wiley), 2026
- Reviewer, Mansoura Engineering Journal, 2026
- Reviewer, International Journal of Communication Systems (Wiley), 2026
- Reviewer, Knowledge-Based Systems (Elsevier), 2026

- Reviewer, European Alliance for Innovation, 2024–2025
- Reviewer, IEEE Access, 2022–2025
- Reviewer, IEEE Transactions on Artificial Intelligence, 2023–2024
- Reviewer, IEEE International Conference on Computing and Machine Intelligence (ICMI 2024), 2023–2024

7. **Publications**

a) Refereed Journals.

- Sharawi, M., Althekair, A., Odeh, M., AlBayaa, M., Abu Doush, I., & Almulla, M. (2026). "MGaming EEG-BCI: Advancing inclusive and gesture-free neural interaction for mobile gaming applications." *Journal of Sensors*, 2026, Article 9983391. <https://doi.org/10.1155/js/9983391>
- Alrashdi, I., Sharawi, M., Ali, A. M., Sallam, K. M., Arain, B., & Abdel-Basset, M. (2026). "Utilizing deep learning models for early detection and classification of fruit diseases: Towards sustainable agriculture and enhanced food quality." *Scientific Reports*. <https://doi.org/10.1038/s41598-026-38259-3>
- Vasquez-Ramos, J., Ruiz-Sandoval, M. G., Oliva, D., Ramos-Soto, O., Ramos-Frutos, J., Sharawi, M., & Pérez-Cisneros, M. (2025). "Response surface-driven hyperparameter optimization for XGBoost." *The Journal of Supercomputing*, 81, Article 1112. <https://doi.org/10.1007/s11227-025-07600-4>
- Miguel-Andrés, I., Ramos-Frutos, J., Sharawi, M., Oliva, D., Reyes-Dávila, E., Casas-Ordaz, A., Pérez-Cisneros, M., & Zapotecas-Martínez, S. (2024). "Wrapper-based feature selection to classify flatfoot disease." *IEEE Access*, 12, 22433–22447. <https://doi.org/10.1109/ACCESS.2024.3361936>
- Mohamed, M., Elsayed, A., & Sharawi, M. (2024). "Modeling metaverse perceptions for bolstering traffic safety using novel TrSS-based OWCM-RAM MCDM techniques." *Neutrosophic Systems with Applications*, 16. <https://doi.org/10.61356/j.nswa.2024.16204>
- Mohamed, M., Elsayed, A., & Sharawi, M. (2024). "ICT innovative for adapting and mitigating climatic variability: Towards an integrated approaches for sustainable environment." *Climate Change Reports*, 1, 48–60. <https://doi.org/10.61356/j.ccr.2024.1211>
- Abdel-Basset, M., Mohamed, R., Abdel-Fatah, L., Sharawi, M., & Sallam, K. M. (2023). "Improved metaheuristic algorithms for optimal parameters selection of proton exchange membrane fuel cells: A comparative study." *IEEE Access*, 11, 7369–7397. <https://doi.org/10.1109/ACCESS.2023.3236023>
- Abdel-Basset, M., Mohamed, R., Abd Elkhaliq, W., Sharawi, M., & Sallam, K. M. (2022). "Task scheduling approach in cloud computing environment using hybrid differential evolution." *Mathematics*, 10(21), Article 4049. <https://doi.org/10.3390/math10214049>
- Abdel-Basset, M., Mohamed, R., Sharawi, M., Abdel-Fatah, L., Abouhawwash, M., & Sallam, K. (2022). "A comparative study of optimization algorithms for parameter estimation of PV solar cells and modules: Analysis and case studies." *Energy Reports*, 8, 13047–13065. <https://doi.org/10.1016/j.egyr.2022.09.040>

b) Conferences

- Almulla, M., Abdou, S., AlNowaif, H., AlSanea, J., & Sharawi, M. (2026). "An intelligent holographic virtual assistant for human-computer interaction in academic environments." Proceedings of the 17th Student Research Conference on Applied Computing, 1–6. IEEE. <https://doi.org/10.1109/SRC70627.2026.11550519>
- Sharawi, M., Shady, R., Salahi, P., & Almulla, M. (2026). "Virtual explorations with Wolfpack: An accessible VR e-book for enhancing active learning in STEM education." Proceedings of the IEEE Global Engineering Education Conference (EDUCON 2026).
- Sharawi, M., Al-Obaid, A., Almulla, M., & Rezkalla, N. (2025). "Kyber-MSMT-PF: An intelligent hybrid cryptosystem for post-quantum security." International Conference on Computer and Applications, 1–7. <https://doi.org/10.1109/ICCA66035.2025.11430742>
- Sultan, K., Marey, O. I., Khanafer, M., Sharawi, M., & Rababaah, A. R. (2025). "Formal trust-based security approach for uncertain IoT-cloud systems." Fifth International Conference on Electrical, Computer and Energy Technologies, 1–7. <https://doi.org/10.1109/ICECET63943.2025.11471893>
- Sharawi, M., & Almulla, M. (2024). "Multi-staged matrix transformations Playfair cipher (MSMT-PF)." Proceedings of the International Conference on Computer and Applications, 1–7. <https://doi.org/10.1109/ICCA62237.2024.10928123>
- Althekair, A., Odeh, M., AlBayaa, M., Sharawi, M., & Abu Doush, I. (2023). "Mobile gaming EMG-based brain computer interface." In H. P. da Silva & P. Ciproso (Eds.), Proceedings of the Seventh International Conference on Computer-Human Interaction Research and Applications, 40–52. Springer. https://doi.org/10.1007/978-3-031-49425-3_3

c) Book Chapters

- Sharawi, M., & El-Abd, M. (2021). "Brainstorm optimization algorithm." In A. J. Kulkarni & P. Siarry (Eds.), Handbook of AI-Based Metaheuristics (pp. 1–18). CRC Press. <https://doi.org/10.1201/9781003162841-2>
- Sharawi, M., & Almulla, M. (2026). "Moth-flame optimization." In A. J. Kulkarni, E. Mezura-Montes, & H. Bonakdari (Eds.), Encyclopedia of Engineering Optimization and Heuristics. Springer. https://doi.org/10.1007/978-981-96-8165-5_85-1

9. **Membership in Professional Societies**

IEEE member.

10. **Courses taught**

a) Academic Courses at AUK

- CSIS 101 – Computer Skills and Emerging Technologies
- CSIS 110 – Foundations of Information Systems
- CSIS 120 – Computer Programming I
- CSIS 130 – Computer Programming II

- CSIS 150 – Professional and Ethical Issues in CSIS
- CSIS 210 – Data Structures and Algorithms
- CSIS 255 – Web Technologies
- CSIS 322 – Computer Networks and Data Communication
- CSIS/CPEG 372 – Introduction to Cryptography
- CSIS/CPEG 411 – Ethical Hacking
- CSIS/CPEG 426 – Digital Forensics
- CPEG 430 – Introduction to Soft Computing
- CSIS 440 – Software Project Management
- CSIS 470 – Practicum in Computing and Information Systems
- CSIS 476 – Computer Security and Information Assurance
- CSIS 490 – Computer Science and Information Systems Capstone I
- CSIS 491 – Computer Science and Information Systems Capstone II

11. **Other Duties** *(Assigned committee/administration duties performed during the academic year with average hours per week. Indicate which carry extra compensation.)*

a) College level

- Founder, AUK Cybersecurity Club, 2026–Present
- ChatGPT Champion, College of Engineering and Applied Sciences, 2024–Present
- Coordinator, Computer Science Capstone Projects (CSIS 490/491), 2023–2024
- Supervisor, Computer Science Capstone Projects, 2022–Present
- Academic Advisor, Computer Science and Information Systems Programs, 2023–Present
- Supervisor, Student Research Mentorship, 2024–2025
- Supervisor, Student Internships, Computer Science Program, 2022–2023
- Member, Academic Quality Committee, CEAS, 2023–Present
- Member, CSIS 120, CSIS 130, and CSIS 210 Ad Hoc Committee, 2024–2025
- Member, CEAS Capstone Exhibition Committee, 2023–2024
- Member, Computer Science Program Accreditation Committee, 2022–2023

b) Institution level

- Kuwait Local Lead, NASA Space Apps Challenge, 2024–Present
- Chair, Organizing Committee, NASA Space Apps Challenge–Kuwait, 2024–Present
- Member, Organizing Committee, NASA International Space Apps Challenge–Kuwait, 2022
- Member, Grade Appeals Committee, AUK, 2024–Present
- Proctor and Supervisor, IEEEExtreme Programming Competition 17.0, 2023–2024
- Member, Organizing Committee, IEEE Global Engineering Education Conference (EDUCON 2023), 2023

c) Outside the institution

- Session Chair, IEEE Global Engineering Education Conference (EDUCON), 2026
- Session Chair, IEEE Global Engineering Education Conference (EDUCON), 2023
- Session Chair, Seventh International Conference on Computer-Human Interaction Research and Applications (CHIRA), 2023

- Member, Program Committee, Special Track on Computational Intelligence in Medical Imaging, 39th IEEE International Symposium on Computer-Based Medical Systems, 2026
- Associate Editor, ICCK Transactions on Swarm and Evolutionary Learning, 2024–2025
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- Section Editor for Linear Programming, Encyclopedia of Engineering Optimization and Heuristics, Springer, 2026
- Reviewer, International Journal of Imaging Systems and Technology (Wiley), 2026
- Reviewer, Mansoura Engineering Journal, 2026
- Reviewer, International Journal of Communication Systems (Wiley), 2026
- Reviewer, Knowledge-Based Systems (Elsevier), 2026
- Reviewer, European Alliance for Innovation, 2024–2025
- Reviewer, IEEE Access, 2022–2025
- Reviewer, IEEE Transactions on Artificial Intelligence, 2023–2024
- Reviewer, IEEE International Conference on Computing and Machine Intelligence, 2023–2024

12. **Research**

- Member, CEAS Intelligent Software Systems Research Group
- Member, CEAS Internet Systems and Optimization Research Group

Research Grants

Academic Year 2025–2026

Professional Development Grant (AUK)

Purpose: Conference attendance and paper presentation at IEEE/ICCA 2025

Amount: KD 127.970

Role: Presenter / Attendee

Academic Year 2024–2025

Professional Development Grant (AUK)

Purpose: Conference attendance and paper presentation at IEEE/ICCA 2024

Amount: KD 534.046

Role: Presenter / Attendee

Wolfpack Advisory Board Grant (AUK)

Project Title: AUK Holographic Assistant

Amount: KD 500

Role: Capstone Supervisor

Academic Year 2023–2024

AUK Research Grant: “Mobile Brain Computer Interface Motor Imagery”

Role: Principal Investigator

Amount: KD 800

Co-Investigator: Prof. Iyad Abu Doush

Research Assistants: Abdulaziz Althekair, Mohammed Odeh, and Mohammad AlBayaa

13. Participation in Specific Programs

- ChatGPT EDU AUK piloting Project
- Legal Hacks: An Educator's Guide to Using AI Workshops
- Teaching Future Skills
- Effective Group Work Workshop
- Backward Course Design: Your Path to a More Meaningful Learning Experience for You and Your Students Workshop
- Exploring Classroom and Authentic Assessment Techniques Workshop
- Training Session: Streamlining Textbook Ordering Process