MOHANAD AL-MUSAYLH

Assistant Professor in Artificial Intelligence Applications and Mathematics

Holding a Ph.D. degree from the University of Southern Queensland in Australia. Receiving three excellence awards in research work during my PhD. Ten years of working experience in research projects with artificial intelligence, data forecasting models, machine learning, and deep learning methods not only in academic sectors but also in industries.

Fourteen years of experience in teaching Mathematics, Statistics, Numerical analysis, and computer science resulted in several achievements, such as developing teaching skills and directly sharing my knowledge with students.

Good administrative experience working within a team for research and improving administrative work due to work as a department coordinator and director of scientific and graduate studies.

EXPERIENCE

Basra, Iraq
Sep 2022- Present

Department coordinator (Assistant Professor)
Information Technologies Department, Management Technical College, Southern Technical University

Queensland, Australia
Feb 2016-Present

Research Member – Advanced Data Analytics Lab: Modelling & Simulation Group
University of Southern Queensland

Basra, Iraq
Feb 2021-Sep 2022

Director of scientific and graduate studies
Management Technical College, Southern Technical University

Queensland, Australia
Feb 2022-July 2022

Research Assistant
University of Southern Queensland

Queensland, Australia
Oct 2020-Jan 2021

Research Assistant
University of Southern Queensland

Queensland, Australia
Jun 2019-Oct 2019

Interner
Australian Bureau of Statistics

Basra, Iraq
Nov 2013-Feb 2015

Director of scientific and graduate studies
Management Technical College, Southern Technical University

Basra, Iraq
Sep 2011-Nov 2013

Department coordinator
Business Administration Technology Department, Management Technical College, Southern Technical University

EDUCATION

Australia
Feb 2016-Aug 2020

PhD degree in artificial intelligence applications
University of Southern Queensland
Receiving a pass result without correction and three excellence awards

Iraq
Nov 2008-Oct 2010

Master degree in Pure Mathematics
Basra University
Excellent in thesis and very good in overall average

Iraq
Sep 2004-Jul 2008

Bachelor degree in Mathematics
Basra University
Very good in overall average

CERTIFICATIONS & COURSES

- Certificate for delivering an oral presentation and attendance in the 2018 3rd international conference on power and renewable energy (ICPRE2018) held in Berlin, Germany on September 21-24, 2018.

- Certificate of completion of English academic purposes programs II (EAP II) courses 2016.

- Certificate of completion of English academic purposes programs I (EAP I) courses 2015.

- Statement of proficiency for completion of English Language Intensive Courses for Overseas Students (ELAS) - ELICOS (Level 5) 2015.

- Statement of proficiency for completion of English Language Intensive Courses for Overseas Students (ELAS) - ELICOS (Level 4) 2015.

PERSONAL INFORMATION

Nationality
Iraqi

Date of birth
Oct 21, 1986

CONTACT INFORMATION

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Researchgate link
https://www.researchgate.net/profile/Mohanad-Al-Musaylh

Linkedin link
https://www.linkedin.com/in/mohanad-al-musaylh/

Google Scholar link
https://scholar.google.com/citations?hl=en&user=nLeJ-j4AAAAJ

ORCID link
https://orcid.org/0000-0002-2002-1429

Publons link
https://publons.com/researcher/5041360/mohanad-al-musaylh/

Scopus link
https://www.scopus.com/authid/detail.uri?authorId=57197868303

SKILLS

Python, MATLAB, R, SPSS, Excel, Artificial intelligence models, Statistical and Time series modelling, Data driven models, Machine learning, Mathematics, Advanced Statistics, Big data sets, Applied data science, Teamwork, Generating Publications (Ability to perform literature reviews, analyse datasets/model results, generate publication quality figures/tables, write journal papers and write response to reviewers)

LANGUAGES

English
Advanced. English Language Intensive Courses for Overseas Students (ELAS) - ELICOS and English for Academic Purposes (EAP) Course

Arabic: Native

- Statement of proficiency for completion of English Language Intensive Courses for Overseas Students (ELAS) - ELICOS (Level 3) 2015.

- Certificate of appreciation presented in recognition of volunteering excellence.

- Certificate of completion of the teaching methods course in 2011.

HONORS & AWARDS

- University of Southern Queensland (USQ) student publication excellence award 2019.

- University of Southern Queensland (USQ) student publication excellence award 2020.

- Award for excellence in doctoral research presented from University of Southern Queensland (USQ) 2020.

- Appreciation letter from the minister of higher education and scientific research of Iraq 2021 for hard work in teaching.

- Appreciation letter from the chancellor of Southern Technical University, Basra, Iraq 2019 for publishing a research paper in a high impact journal.

- Appreciation letter from the chancellor of Southern Technical University, Basra, Iraq 2021 for publishing a research paper in a high impact journal.

- Two appreciation letters from the chancellor of Southern Technical University, Basra, Iraq 2022 for hard work in exam committee.

- Two Appreciation letter from the chancellor of Southern Technical University, Basra, Iraq 2023 for publishing a research paper in a high impact journal.

- Appreciation letter from the chancellor of Southern Technical University, Basra, Iraq 2024 for publishing a research paper in a high impact journal.

PUBLICATIONS

- Al-Musaylh, M.S., Al-Daffaie, K., Downs, N., Ghimire, S., Ali, M., Yaseen, Z.M., Igoe, D.P., Deo, R.C., Parisi, A.V. and Jebar, M.A., 2025. Multi-step solar ultraviolet index prediction: integrating convolutional neural networks with long short-term memory for a representative case study in Queensland, Australia. Modeling Earth Systems and Environment, 11(1), p.77. **(Q1 Journal)**

- Ghimire, S., AL-Musaylh, M.S., Nguyen-Huy, T., Deo, R.C., Acharya, R., Casillas-Pérez, D., Yaseen, Z.M. and Salcedo-Sanz, S., 2025. Explainable deeply-fused nets electricity demand prediction model: Factoring climate predictors for accuracy and deeper insights with probabilistic confidence interval and point-based forecasts. Applied Energy, 378, p.124763. **(Q1 Journal)**

- Al-Daffaiea, K., AL-Musaylh, M.S., Al-Faisal, Q.R.M. and Shallal, Q.M., 2024, October. Monthly exchange rate prediction based on artificial intelligence models and Iraqi Dinar against United States dollar. In AIP Conference Proceedings (Vol. 3232, No. 1). AIP Publishing. . **(Conference Paper)**

- Ahmed, A.A.M., Jui, S.J.J., AL-Musaylh, M.S., Raj, N., Saha, R., Deo, R.C. and Saha, S.K., 2024. Hybrid deep learning model for wave height prediction in Australia's wave energy region. Applied Soft Computing, 150, p.111003. **(Q1 Journal)**

- Ghimire, S., Nguyen-Huy, T., AL-Musaylh, M.S., Deo, R.C., Casillas-Pérez, D. and Salcedo-Sanz, S., 2023. Integrated Multi-Head Self-Attention Transformer model for electricity demand prediction incorporating local climate variables. Energy and AI, 14, p.100302. **(Q1 Journal)**

- Ghimire, S., Nguyen-Huy, T., AL-Musaylh, M. S., Deo, R. C., Casillas-Pérez, D., & Salcedo-Sanz, S. (2023). A novel approach based on integration of convolutional neural networks and echo state network for daily electricity demand prediction. Energy, 127430. **(Q1 Journal)**

- Ghimire, S., Deo, R.C., Wang, H., AL-Musaylh, M.S., Casillas-Pérez, D. and Salcedo-Sanz, S., 2022. Stacked LSTM Sequence-to-Sequence Autoencoder with Feature Selection for Daily Solar Radiation Prediction: A Review and New Modeling Results. Energies, 15(3), p.1061. **(Q1 Journal)**

- Deo, R.C., Grant, R.H., Webb, A., Ghimire, S., Igoe, D.P., Downs, N.J., Al-Musaylh, M.S., Parisi, A.V. and Soar, J., 2021. Forecasting Photosynthetic Photon Flux Density Under Cloud Effects: Novel Predictive Model Using Convolutional Neural Network Integrated with Long Short-term Memory Network. **(Q1 Journal)**

- Lafta, R. L., Al-Musaylh, M. S., & Shallal, Q. M. (2022). Clustering similar time series data for the prediction the patients with heart disease. Indonesian Journal of Electrical Engineering and Computer Science, 26(2), 947-954. doi:10.11591/ijeecs.v26.i2.pp947-954 **(Q3 Journal)**

- ALMusaylh, M.S., AlDaffaie, K. and Prasad, R., 2021. Gas consumption demand forecasting with empirical wavelet transform based machine learning model: A case study. International Journal of Energy Research, 45(10), pp.15124-15138. **(Q1 Journal)**

- Al-Musaylh, M.S., Deo, R.C. and Li, Y., 2020. Electrical energy demand forecasting model development and evaluation with maximum overlap discrete wavelet transform-online sequential extreme learning machines algorithms. Energies, 13(9), p.2307. **(Q1 Journal)**

- Al-Musaylh, M.S., Deo, R.C., Adamowski, J.F. and Li, Y., 2019. Short-term electricity demand forecasting using machine learning methods enriched with ground-based climate and ECMWF Reanalysis atmospheric predictors in southeast Queensland, Australia. Renewable and Sustainable Energy Reviews, 113, p.109293. **(Q1 Journal)**

- Al-Musaylh, M.S., Deo, R.C. and Li, Y., 2018, November. Particle swarm optimized support vector regression hybrid model for daily horizon electricity demand forecasting using climate dataset. In E3S Web of Conferences, vol. 64 (Vol. 64, No. 08001). EDP Sciences. **(Conference Paper)**

- Al-Musaylh, M.S., Deo, R.C., Li, Y. and Adamowski, J.F., 2018. Two-phase particle swarm optimized-support vector regression hybrid model integrated with improved empirical mode decomposition with adaptive noise for multiple-horizon electricity demand forecasting. Applied energy, 217, pp.422-439. **(Q1 Journal)**

- Al-Musaylh, M.S., Deo, R.C., Adamowski, J.F. and Li, Y., 2018. Short-term electricity demand forecasting with MARS, SVR and ARIMA models using aggregated demand data in Queensland, Australia. Advanced Engineering Informatics, 35, pp.1-16. **(Q1 Journal)**