



Faculty CV

Mirna Nachouki

Academic Rank

Associate Professor

Qualifications

- Ph.D. in Computer Science, University of Paul Sabatier, Toulouse III, France. 1995.
- Master in Computer Science, University of Paul Sabatier, Toulouse III, France. 1991.
- Bachelor of Science in Computer Science, University of Pau, France. 1990.

Research field(s)

- Data Mining
- Machine Learning
- Cloud Computing
- E-learning
- Blockchain

Publications

- Kouka, S., Makhadmeh, S. N., Al-Betar, M. A., Dalbah, L. M., & Nachouki, M. (2024). Recent Applications and Advances of Migrating Birds Optimization. *Archives of Computational Methods in Engineering*, 31(1), 243-262.
- Mohammad, Y., & Nachouki, M. (2023, December). Smart City Requirements to Achieve Safe Smart Transportation Systems in Saudi Arabia. In *2023 24th International Arab Conference on Information Technology (ACIT)* (pp. 1-5). IEEE.
- Mohammed, E. A., Abou Naaj, M., Nachouki, M., & Mehdi, R. (2023, December). Predicting Student Grade Point Average: Comparison of Machine Learning Regression Algorithms. In *2023 24th International Arab Conference on Information Technology (ACIT)* (pp. 1-6). IEEE.
- Mehdi, R., & Nachouki, M. (2023, December). Genetic Algorithm-Based Approach for Predicting Student Academic Success. In *2023 24th International Arab Conference on Information Technology (ACIT)* (pp. 1-5). IEEE.

- M Nachouki, EA Mohamed, R Mehdi, M Abou Naaj, "Student Course Grade Prediction Using the Random Forest Algorithm: Analysis of Predictors' Importance." Trends in Neuroscience and Education, 2023, 33, 100214.
- Abou Naaj, M., Mehdi, R., Mohamed, E.A., Nachouki, M., "Analysis of the Factors Affecting Student Performance Using a Neuro-Fuzzy Approach," Education Sciences, 2023, 13(3), 313.
- Kouka, S., Makhadmeh, S.N., Al-Betar, M.A., Dalbah, L.M., Nachouki, M. "Recent Applications and Advances of Migrating Birds Optimization." Archives of Computational Methods in Engineering, 2023.
- R. Mehdi, M. Nachouki, "A neuro-fuzzy model for predicting and analyzing student graduation performance in computing programs". Education and Information Technologies, 2023.
- M. Abou Naaj & M. Nachouki, "Students' perception of academic dishonesty in programming courses," Journal of Further and Higher Education, pp. 1-17, 2022.
- M. Nachouki, & M. Abou Naaj, "Predicting Student Performance to Improve Academic Advising Using the Random Forest Algorithm". International Journal of Distance Education Technologies (IJDET), 20(1), 1-17, 2022.
- M. Abou Naaj, M. Nachouki, "Distance Education during the COVID-19 Pandemic: The Impact of Online Gaming Addiction on University Students' Performance", International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 12, No. 9, 2021.
- M. Nachouki, R. Mehdi, "Particle Swarm Model for Predicting Student Performance in Computing Programs", Intelligent Systems Conference, IntelliSys2021, September 2021.
- M. Abou Naaj, M. Nachouki, "The impact of Video Game Addiction on Students' Performance During COVID-19 Pandemic", IEEE International Conference on Computer Science and Education ICCSE 2021, 17-21 August 2021.
- M. Abou Naaj, M. Nachouki, "Evaluating Students' Cyber Ethics Awareness in a Gender-Segregated Environment Under the Impact of COVID-19 Pandemic", TEM JOURNAL Technology, Education, Informatics, 10(3), pp. 1248-1256, August 2021.
- R. Abu Zitar, N. Al-Dmour, M. Nachouki, H. Hussain and F. Alzboun "Hashing Generation Using Recurrent Neural Networks for Text Documents", Innovative Computing, Information, and Control - Express Letters Part B: Applications ICIC International, Volume 12, Number 3, March 2021, pp. 231-241.
- R. Mehdi, M. Nachouki, "Cost Optimization of Procuring Cloud Computing Resources Using Genetic Algorithms", Journal of Theoretical and Applied Information Technology. Vol 98, issue 8, April 2020, pp. 1201 - 1213.
- M. Abou Naaj, M. Nachouki, "Academic Dishonesty in Computer and Mathematics Assignments: A Comparative Study", International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8, Issue-6S3, September 2019, pp 227-232.
- M. Nachouki, "Assessing and Evaluating Learning Outcomes of the Information Systems Program", World Journal of Educational Research, Volume 4, No. 4, December 2017, pages 524 – 536.
- R. Abu Zitar, M. Nachouki, H. Hussain, F. Alzboun, "Recurrent Neural Networks for Signature Generation", 13th International Congress on Image and Signal Processing, Biomedical Engineering and Informatics (CISP-BMEI 2020), 25 November 2020.
- M. Nachouki, M. Abou Naaj, "Process Automation Tool for Academic Advising", IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2019), December 10-12, 2019.



- M. Abou Naaj, M. Nachouki, K. Ammar, "Factors Influencing Plagiarism and Collusion in Programming Assignments", 18th International Conference on Information Technology based Higher Education and Training (ITHET) 2019, 26-27 September 2019, Publisher IEEE.
- R. Mehdi and M. Nachouki, "Cloud Capacity Planning Based on Simulation and Genetic Algorithms", Intelligent Systems Conference, IntelliSys2019, 5-6 September 2019, London, United Kingdom.
- M. Abou Naaj, M. Nachouki, "Academic Dishonesty in Computer and Mathematics Assignments: A Comparative Study", The 8th International Conference on Computer Science & Computational Mathematics (ICSCM 2019), 4-5 July 2019.

Courses Taught

- Introductory Programming
- Object Oriented Programming
- Data Structures & Algorithms
- Computer Graphics
- Fundamentals of Web Systems
- Fundamentals of Software Engineering
- System Analysis and Design
- Database Management Systems
- Business Intelligence and Data warehousing
- Information Technology in Business
- Discrete Mathematics

Professional Experience

- Head of the Information Technology Department, College of Engineering and Information Technology, Ajman University, Ajman – UAE. Jan. 2019 – Current
- Acting Dean, College of Information Technology, Ajman University, Ajman – UAE. July 2017 – Jan. 2019
- Head of the Information Systems Department, College of Information Technology, Ajman University, Ajman – UAE. Sept. 2001 – Feb. 2017
- Assistant Professor, College of Information Technology, Ajman University, Ajman – UAE. Sept. 1998 - Sept. 2001
- Assistant Instructor, Toulouse III University, Toulouse, France. Sept. 1992 – June 1995

Committees Work

- Conduct all relevant activities as the Head of the Information Technology Department in the College of Engineering and Information Technology:
 - Insured that all course files related to all programs within the IT Department ar conform to the Ministry requirements.
 - Completed and submitted the documentation for the CAA reaccreditation of the Information Technology and Information Systems programs in October 2021. The programs were granted reaccreditation in November 2022.
 - Completed and submitted the documentation for the CAA initial Bachelor of Science in Data Analytics accreditation in May 2019. The program was granted initial accreditation in April 2020.
 - Served as the program coordinator of the Master of Science in Artificial Intelligence program,
 - Served as the program coordinator of the Bachelor of Science in Information Systems program,
 - Served as the Head of the ABET Accreditation Committee within the Information Technology Department,
 - Served as a member of the International Quality Review (IQR) Accreditation Task Force,
 - Responsible for reviewing and updating the College material on the website,
 - Responsible for developing the first phase of the “Ajman Business Map” project for the Ajman Department of Economic Development,
 - Updated the Information Systems program curricula by introducing new courses reflecting new trends and, as part of the reaccreditation process for the program,
 - Developed and implemented a set of procedures and tools for assessing the achievements of the Information Systems Program Learning Outcomes at Ajman University,
 - Updated the Information Systems curriculum and study plan based on the IS/ACM guidelines and market needs as indicated by Graduate Survey forms and Employers' Feedback forms used for this purpose at Ajman University,
 - Prepared Self-Study for the Reaccreditation of the Information Systems Program at Ajman University. It was submitted to the Commission for Academic Accreditation of the Ministry of Education. The program was granted reaccreditation in August 2019.
 - Developed the Program Educational Objectives, Program Learning Outcomes, and some new Bachelor of Science in Data Analytics courses.
 - Revised the responses that were submitted to the CAA for the MSc program in Artificial Intelligence.
 - Served as a member of the following AU Committee: Search Committee formulation: Dean of Law.

- Served as acting Dean of the former College of Information Technology and conducted all relevant activities:
 - Participated in preparing AU responses to the CAA requirements regarding the three programs, and more specifically, the Information Systems program,

- Insured that all course files related to the three programs conform to the Ministry requirements,
 - Reviewed the Master of Science in Artificial Intelligence program document that was submitted to the CAA for initial accreditation,
 - Prepared a site map for the former Information Technology College website, as required by the media Office,
 - Interviewed candidates for the positions of faculty member, research assistant, and teaching assistant in the College,
 - Served as a member of the College Effectiveness Committee (CEC).
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- Participated in the reaccreditation of the Master's program in Information Systems in March 2013 at Ajman University.
 - Worked on re-accrediting the Information Systems Program in the College of Information Technology at Ajman University. The program was re-accredited by the ministry in June 2006 and December 2011.
 - Defined and implemented the strategic plan for the Information Systems Department at Ajman University, 2008.
 - Participated in launching Moodle's open-source learning platform at Ajman University in February 2006.
 - Defined and Implemented a Strategic Plan for the Academic e-Services Department to ensure proper integration of e-learning with curriculum delivery at Ajman University, 2007.
 - Assisted faculty members in moving from traditional to blended teaching using Moodle as an Online Learning Environment at Ajman University between 2007 and 2010.
 - Developed curriculum for a Training Program based on the Learning Management Systems Moodle (basic and advanced levels) at Ajman University between 2007 and 2016.
 - Provided all Colleges with various Moodle training sessions at Ajman University in both Arabic and English languages between 2007 and 2016.

Honors and Awards

- Awarded the Moodle Educator Certification (MEC) program delivered by Eummena for Moodle, January 2022.

Other Contributions and Achievements

- Member of the Association of Computing Machinery.
- Served as a Technical Paper Reviewer for the International Journal of Information and Education Technology, October 2023.
- Served as a Technical Paper Reviewer for the Computers in Human Behavior Reports, September 2023.
- Served as a Technical Paper Reviewer for the Creative Education, September 2023.

- Served as a Technical Paper Reviewer for the Social Sciences & Humanities Open, September 2023.
- Served as a Technical Paper Reviewer for Helyion journal, July 2023.
- Served as a Technical Paper Reviewer for the International Journal of Information and Education Technology, June and July 2023.
- Served as a Technical Paper Reviewer for the Engineering Science and Technology, an International Journal, January 2023 and March 2022.
- Served as a Technical Paper Reviewer for the Cogent Education Journal 2023, January 2023.
- Served as a Technical Paper Reviewer for the International Journal of Grid and Utility Computing, September 2022.
- Served as a Technical Paper Reviewer for the International Journal of Human-Computer Interaction, September 2022.
- Served as a Technical Paper Reviewer for IEEE Access in April 2021.
- Served as a Technical Paper Reviewer at the Journal of Engineering Research (JER), <https://kuwaitjournals.org/jer/index.php/JER/home>, June 2019.
- Served as a Technical Paper Reviewer for ACIT2023,
- Served as a Technical Paper Reviewer for ArabWIC2021, <https://www.sharjah.ac.ae/en/Research/Outreach/womenc/Pages/co.aspx>, May 2021.
- Served as a Technical Paper Reviewer for Scientific Research Publishing <http://www.scirp.org/>, March and June 2019.
- Served as a Technical Paper Reviewer at the 2nd International Conference on Signal Processing and Information Security (ICSPIS 2019), September 2019.
- Served as a Technical Paper Reviewer for IC13 International Symposium on Smart Learning for the Next Generation, November 2013.