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CURRICULUM VITAE

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1. **Personal Data**

Date of Birth: 26-03-1976
Nationality: Jordanian
Phone No.: 0797701334

2. **Education**

- Ph.D. (Information Security) 2013, National Taiwan University of Science and Technology, Taipei, Taiwan

- M.Sc. (Computer Science) 2006, Al Balqa'a Applied University, Salt, Jordan

- B.Sc. (Computer Science) 1998, Princess Sumaya University for Technology, Amman, Jordan

3. **Ph.D. Dissertation**

Advanced Digital Watermarking Techniques for Copyright Protection and Content-authentication of Different Digital Media (Relational Databases & H.264/AVC Compressed Video), National Taiwan University of Science and Technology, Taipei, Taiwan.

4. **Employment**

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Academic Positions

- Assistant Professor, Department of Science and Information Technology Science, Al-Zaytoonah University of Jordan, Amman, Jordan
  Sept 15, 2023 – Now
- Assistant Professor, Department of Computer Science, Applied Science Private University, Amman, Jordan
  Sept 15, 2022 – Sept 15, 2023

Administrative Positions

- Project Manager/ Senior Data Scientist Specialist, Royal Scientific Society, Amman, Jordan – 2020-2022.
- Project Manager/ Senior System Analyst, Royal Scientific Society, Amman, Jordan – 2014-2020
- System Analyst, Royal Scientific Society, Amman, Jordan – 2004-2013
- Developer, Royal Scientific Society, Amman, Jordan – 1998-2004

5. Research Interests

My recent research activities include but not limited to developing novel algorithms for protecting relational databases and various multimedia contents such as compressed domain video namely H.264/AVC standard. The algorithms mainly attempt to protect the sender and the media content at the same time thru fragile, semi-fragile and robust watermarking. Although my dissertation focuses on a single topic, other areas that interest me in a broad sense are 1) Image and video processing 2) Digital watermarking and information hiding 3) Video coding and compression 4) Cryptography and coding 5) Machine Learning and 5) Bioinformatics.

6. Membership in Scientific Societies and Associations

Member in Jordanian Software Testing Qualifications Board (JOSTQB).

7. Honors and Awards

8. Fellowships and Scholarships

Scholarship from the National Science Council - Taiwan Government to study PhD in National Taiwan University of Science and Technology, Computer Science and Information Engineering Department during the Years 2008-2013, excellence grade.

9. Teaching Experience

- *Graduate Courses*

- *Undergraduate Courses*

  – Computer Skills
  – Artificial Intelligence
  – Software Testing
  – Project Management
  – User Experience Design
  – Web Programming (HTML, CSS and JS)
  – Information Security
  – Object Oriented Programming using C++
  – Visual Programming VB.NET
  – Management Information Systems
  – Database for Management Information Systems
  – Data and Information Security
  – Python for Cybersecurity
  – Ethical Hacking
  – Database for Cybersecurity
  – Software Development Life Cycle (SDLC)
  – Emerging Topics in Information Technology

10. Supervision of Graduate Research

11. Grants

A project funded by Al-Zaytoonah University-Jordan in 2024 entitled with "Smart homes botnet attacks detection system using ensemble machine learning techniques".
A project funded by Al-Zaytoonah University-Jordan in 2025 entitled with "DualShield: Dual-Agent Adversarial Learning for Proactive IoT Threat Detection".

12. Patents

13. Membership of Committees

- **National and International**
  - Scientific Committee for Control, Informatics and its Applications Conference (IC3INA 2014, IC3INA 2015, 2018, 2019).
  - ICAISD 2024

- ICAISD 2025

- **University**
  - Research Center for Data and Information Science, BRIN, Indonesia

14. <u>Professional and Scientific Meetings</u>

Scientific Meetings Organized

- COMSATS-ISESCO-INIT International Workshop on "Internet Security: Enhancing Information Exchange Safeguards" Sept. 16-20, 2012. Amman, Jordan.

Participation in Scientific meetings

- IEEE International Symposium on Parallel and Distributed Processing with Applications, Taiwan, Sept, 2010.
- Electronic Government Accounting Conference, 3 Days, Amman, 2006
- Instructional Design, Comprehensive Training Course, 70-Days, Tokyo-Japan, 2000.

15. <u>Participation in or organization of curricular and/or extra-curricular activities</u>

16. <u>Publications</u>

- **M. E. Farfoura**, A. A. A. Alkhatib, and T. Connie, "An Uncertainty-Aware Boosting Ensemble for Parkinson's Disease Early Detection," Int. J. Comput. Intell. Syst., vol. 18, no. 1, p. 313, 2025.

- C. W. Yeong, T. Connie, T. S. Ong, N. I. Saedon, A. Al-Khatib, and **M. E. Farfoura**, "RecovGait: Occluded Parkinson's Disease Gait Reconstruction Using Unscented Tracking with Gated Initialization Technique," Sensors, vol. 25, no. 22, Art. no. 7100, Nov. 2025.

- H. Chen, T. Connie, V. W. S. Tan, M. K. O. Goh, N. I. Saedon, A. Al-Khatib, **M. E. Farfoura**, "A non-invasive gait-based screening approach for Parkinson's disease using time-series analysis," Symmetry, vol. 17, no. 9, p. 1385, 2025.

- **M. E. Farfoura**, I. Mashal, A. Alkhatib, and R. M. Batyha, "A lightweight machine learning methods for malware classification," Cluster Computing, vol. 28, no. 1, 2025.

- **M. E. Farfoura**, I. Mashal, A. Alkhatib, R. M. Batyha, and D. Rosiyadi, "A novel lightweight Machine Learning framework for IoT malware classification based on matrix block mean Downsampling," *Ain Shams Engineering Journal*, vol. 16, no. 1, p. 103205, Jan. 2025.

- **M. E. Farfoura**, A. Alkhatib, D. M. Alsekait, M. Alshinwan, S. A. El-Rahman, and D. Rosiyadi, "A Low Complexity ML-Based Methods for Malware Classification," Computers, Materials & Continua, vol. 80, no. 3, pp. 4833–4857, 2024. [Online]. Available: https://doi.org/10.32604/cmc.2024.054849.

- Karim Nader Abdel, Khashan Osama A., Abdulraheem Waleed K., Alazab Moutaz, Kanaker Hasan, **Farfoura Mahmoud E.,** Alshinwan Mohammad, "Performance Comparison of Hyper-V and KVM for Cryptographic Tasks in Cloud Computing", Computers, Materials & Continua, Vol. 78, No. 2, pp. 2023-2045, Feb. 2024.

- **M. E. Farfoura**, Khashan O., Omar H., Alshamaila Y., Karim N. A., Hsiao-Ting Tseng and Alshinwan M., "A Fragile Watermarking Method for Content-Authentication of H.264-AVC Video", Journal of Internet Services and Information Security, DOI: 10.58346/JISIS.2023.I2.014, Vol. 13, No. 2, 211-232, Jun 2023.

- Y. Alshamaila, F. M. Abu Awwad, R. Masa'deh, and **M. E. Farfoura**, "Complexities, Challenges, and Opportunities of Mobile Learning: A Case Study at the University of Jordan," Sustainability, MDPI, vol. 15(12), pages 1-24, June 2023.

- **M. E. Farfoura**, O. Khashan, H. Omar, Y. Alshamaila, N. A. Karim, Hsiao-Ting Tseng and M. Alshinwan, "A Fragile Watermarking Method for Content-Authentication of H.264-AVC Video", Journal of Internet Services and Information Security, DOI: 10.58346/JISIS.2023.I2.014, Volume 13, Issue 2, 211-232, Jun 2023.

- Ali Al-Haj and **M. E. Farfoura**, "Providing Security for E-Government Document Images Using Digital Watermarking in the Frequency Domain", Measurement, 2019 5th International Conference on Information Management (ICIM), 2019.

- Ayoup M.Ghrair, Othman A.Al-Mashaqbeh, Mohmd K.Sarireh, Nedal Al-Kouz, **M. E. Farfoura** and Sharon B.Megdalc, "Influence of grey water on physical and mechanical properties of mortar and concrete mixes", Ain Shams Engineering Journal, Vol. 9, No 4, pp 1519-1525, 2018.

- Ali Al-Haj**, M. E. Farfoura,** and Ahmad A. Mohammad, "Transform-Based Watermarking of 3D Depth-Image-Based-Rendering Images", Measurement, Vol. 95, pp.405-417, Jan 2017.

- **M. E. Farfoura**, Shi-Jinn Horng, Jing-Ming Guo, and Ali Al-Haj: "Low complexity semi-fragile watermarking scheme for H.264/AVC authentication", Multimedia Tools and Applications, May, 2015.

- Jing-Ming Guo, Heri Prasetyo, **M. E. Farfoura**,and Hua Lee: "Vehicle Verification Using Features from Curvelet Transform and Generalized Gaussian Distribution", Transactions on Intelligent Transportation Systems, Vol. 16, No. 4, pp. 1989-1998, 2015.

- **M. E. Farfoura**, Shi-Jinn Horng, Pingzhi Fan, Xian Wang, Tianrui Li, and Jing-Ming Guo: "A low cost fragile watermarking scheme in H.264/AVC compressed domain", Multimedia Tools and Applications, Vol. 72, No. 3, pp 2469-2495, 2013.

- Nisreen Al-Hmoud, Nawar Al-Husseini, **M. E. Farfoura**, Hiyam Al-Rousan, Eric Kübler, and Mohammed A. Ibrahim: "Unconventional P-35S sequence identified in genetically modified maize", GM Crops & Food, Dec., 2013.

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- **M. E. Farfoura**, Shi-Jinn Horng, Jui-Lin Lai, Ray-Shine Run, Rong-Jian Chen, and Muhammad Khurram Khan: "A blind reversible method for watermarking relational databases based on a time-stamping protocol", Expert Systems with Applications, Vol. 39, No. 3, pp. 3185-3196, 2012.

- **M. E. Farfoura**, Shi-Jinn Horng, and Xian Wang: "A Novel Blind Reversible Method for Watermarking Relational Databases", Journal of the Chinese Institute of Engineers, Vol. 36, No. 1, pp. 87–97, 2012.

- **M. E. Farfoura**, and Shi-Jinn Horng: "A Novel Blind Reversible Method for Watermarking Relational Databases", ISPA 2010: pp. 563-569.

- Jui-Sheng Chou, Chien-Kuo Chiu, **M. E. Farfoura**, Ismael Taharwee: "Optimizing the Prediction Accuracy of Concrete Compressive Strength Based on a Comparison of Data Mining Techniques", Journal of Computing in Civil Engineering, Vol. 25, No. 3, pp. 242-253, 2011.