

CURRICULUM VITAE

Dr. Ahmad Momani

Assistant Professor, Department of Information Security and Cybersecurity

1. PERSONAL DATA

Name: Ahmad Momani

Place of Birth: Jordan

Nationality: Jordanian

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2. ACADEMIC/PROFESSIONAL PARTICULARS

(1). Field of Specialization:

Ph.D. – Multidisciplinary Doctoral School of Engineering Sciences, Cybersecurity: Biometric Identification Smart System (Digital Forensics), Image Processing - Machine learning – Artificial intelligence.

Master – Computer Science, Mobile Ad-Hoc Networks.

(2). Academic Qualifications

- **Ph.D. in Computer Science (Specialization: Cybersecurity and Artificial Intelligence)**
Faculty of Multidisciplinary Doctoral School of Engineering Sciences, Széchenyi István University, Hungary.
2021–2025 | GPA: 4.92/5 (courses) – Dissertation Achievements and Defense: 100% (Summa Cum Laude)
Dissertation Title: Securing Identity: Optimizing Fingerprint Identification for Digital Forensics Using Image Processing and Adaptive AI-Based Evolutionary Optimization.
- **M.Sc. in Computer Science**
Faculty of Information Technology, Jordan University of Science and Technology, Jordan
2008–2011 | GPA: 80.3 - Rating: Very Good
Thesis Title: Improved MAC Protocol for Mobile Ad Hoc Networks.
- **B.Sc. in Computer Science**
Faculty of Information Technology, Jordan University of Science and Technology, Jordan,
2003-2007 | GPA: 71.4 - Rating: Good.

3. CAREER DETAILS

(1). Academic Positions Held

- Assistant Professor, Information Security and Cybersecurity Department, Philadelphia University, Jordan (Current Job).
- Full-time lecturer, Preparatory Programs, Al-imam Muhammad ibn Saud Islamic University. Riyadh, Saudi Arabia.

- Part-time lecturer, Department of Computer Information Systems (CIS), Faculty of Computer & Information Technology, Jordan University of Science and Technology.
- Part-time lecturer, Department of Computer Science (CS), Faculty of Computer & Information Technology, Jordan University of Science and Technology, Jordan.
- Part-time lecturer, Department of Computer Science (CS), Faculty of Computer & Information Technology, Jerash Private University.

(2). Professional/Industrial Positions Held

- Scientific Research Coordinator (Intern), Automotive Industry Research Center. Thematic Program of Excellence 2021 – Széchenyi István University. January 15, 2025 – August 5, 2025.
- Web developer, Programming department, PravooNet company, Amman.

4. TEACHING

(1). Summary of Courses Taught

Course Code	Course Name
CS116	Selected Programming Language
CS115	C++ Programming Language
CS102	Programming Lab
CIS 340	Web Applications Development
CS 051	Computer Skills for Preparatory Programs "Applied1 Track"
CS 041	Computer Skills for Preparatory Programs "Administrative Track "
CS 019	Computer Skills for Preparatory Programs "Humanities Track "
CS 104	Computer Skills

(2). Training

- **Digital forensics training school**, Role: Researcher, Title of Project: Training school on Digital forensics: evidence analysis via intelligent systems and practices, Awarding Body: European Cooperation in Science and Technology (COST). Duration (3-7 October

2022), all expenses (flight tickets, accommodation, local transportation) + daily allowance covered during the training.

- The **Teacher Training Program (TTP)** which was directed by the H.E. the UAE Minister of Education, Hussain Alhammadi. The program is accredit to educators for their knowledge of teaching pedagogy and their skills as a trainer through ‘on-the-job’ training and assessment.

5. RESEARCH

(1). Research Interests

- Digital Security (Biometrics: Fingerprints identification and matching).
- Artificial intelligence.
- Machine learning.
- Computer Networks.
- Information Retrieval.

(2). Publications/Citations Data

Type of Publication	Number of Publications
7 Articles in International Refereed Journals. 4 Conference Papers (3 Abstracts and 1 full paper)	8
Citation Source	Number of Citations
Google Scholar	88

(3). Participation in Regional & International Conferences

- 14th European Symposium on Computational Intelligence and Mathematics (ESCIM 2022). Naples, Italy. October 2nd-5th, 2022.
- The 2nd International Conference on Information and Communication Systems (ICICS 2011). Irbid, Jordan. May 2011.

6. SERVICE

(1). Service as Reviewer

Journals:

- IEEE Access.

Conferences:

- The International Conference on Intelligent Computing, Communication, Networking and Services (ICCNS2023), Valencia, Spain, 2023.

- ii. 13th International Conference on Information and Communication Systems (ICICS2022), Irbid, Jordan, 2022.

(2). Invited Presentations at Scientific Meetings/Workshops

- i. "A Novel Fingerprint Identification Fuzzy System Using a Center-distance Weighted Local Binary Pattern", 14th European Symposium on Computational Intelligence and Mathematics (ESCIM 2022). Naples, Italy. October 2nd-5th, 2022.
- ii. "A Novel Fingerprint Identification Fuzzy System Using a Center-distance Weighted Local Binary Pattern", Training school on Digital forensics: evidence analysis via intelligent systems and practices, Naples, Italy. October 2nd-7th, 2022.
- iii. "History-Based Backoff Algorithms for Mobile Ad Hoc Networks". The International Conference on Information and Communication Systems (ICICS), Irbid, Jordan, 22-24 May 2011.

7. LIST OF PUBLICATIONS

- (1). Momani, A. A., & Kóczy, L. T. "A robust fingerprint identification approach using a fuzzy system and novel rotation method". In Pattern Recognition, vol. 159, 2025. <https://doi.org/10.1016/j.patcog.2024.111134>
- (2). Ahmad A. Momani and László T. Kóczy, "Fingerprint Revolution: Unleashing the Potential of Modified Bacterial Memetic Evolution for a Paradigm Shift in Fingerprint Recognition and Optimization". In Computational Intelligence and Mathematics for Tackling Complex Problems 6, Springer Verlag, 2025. DOI: 10.1007/978-3-031-97879-1
- (3). Ahmad A. Momani and László T. Kóczy, "Fingerprint Revolution: Unleashing the Potential of Modified Bacterial Memetic Evolution for a Paradigm Shift in Fingerprint Recognition and Optimization". 15th European Symposium on Computational Intelligence and Mathematics (ESCIM 2024). Krakow, Poland. May 12th-15th, 2024. pp.38-39.
- (4). Ahmad A. Momani and László T. Kóczy, "A Robust Fingerprint Identification Fuzzy System Using a New Rotation Method and Adaptive Core-Distance Weighted Local Binary Pattern". 9th WG & 7th MC Meetings. Cádiz, Spain. March 1st-3rd 2023.
- (5). Ahmad A. Momani and László T. Kóczy, "A Novel Fingerprint Identification Fuzzy System Using a Center-Distance Weighted Local Binary Pattern". 14th European Symposium on Computational Intelligence and Mathematics (ESCIM 2022). Naples, Italy. October 2nd-5th, 2022. pp.16-17.
- (6). A. A. Momani and L. T. Kóczy, "A Novel Fingerprint Identification Fuzzy System Using a Center-Distance Weighted Local Binary Pattern," in Computational Intelligence and Mathematics for Tackling Complex Problems 5, vol. 1127, 2024. doi: 10.1007/978-3-031-46979-4.
- (7). Y. Tashtoush, M. Hayajneh, O. Darwish, A. Momani, Y. Shboul, "DNB-AODV: Dynamic Neighbors Based Contention Window Approach for IEEE 802.11 AODV MAC Protocol". Journal of Next Generation Information Technology (JNIT), Vol. 4, No. 4, pp. 1 - 8, ISSN: 2092-8637, 2013.

- (8).** A. Momani, M. Bani Yassein, O. Darwish, S. Manaseer, W. Mardini, "Intelligent Paging Backoff Algorithm for IEEE 802.11 MAC Protocol". The International Journal of Network Protocols and Algorithms (NPA), Volume 3, Issue 1, ISSN: 1943-3581, 2012.
- (9).** A. Haboush, A. Momani, M. Al-Zoubi, M. Tarazi, "Arabic Text Summarization Model Using Clustering Techniques". The World of Computer Science and Information Technology Journal (WSCIT). Vol. 2, No. 3, 62 – 67, ISSN: 2221-0741, 2012.
- (10).** Muneer O. Bani Yassein, Saher S. Manaseer, and Ahmad A. Momani, "Adaptive Backoff Algorithm for Wireless Internet," Journal of Emerging Technologies in Web Intelligence, Vol. 4, No. 2, pp. 155-163, May 2012. doi:10.4304/jetwi.4.2.155-163.
- (11).** S. Manaseer, M. Bani Yassein, A. Momani, "History-Based Backoff Algorithms for Mobile Ad Hoc Networks". The International Conference on Information and Communication Systems (ICICS), 22-24 May 2011, Jordan.