

## CURRICULUM VITAE



**DR. BASEM MOHAMAD AL-RIFAI**

**PhD in Computer System Engineering**

### **CONTACT & PERSONAL INFORMATION**

- **Name:** Dr. Basem Mohamad Al-Rifai
- **Date of Birth:** 15 March 1971
- **Nationality:** Jordanian & Russian
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### **RESEARCH PROFILES & AUTHOR IDENTIFIERS**

- **Google Scholar:** <https://scholar.google.com/citations?hl=ar&user=k9fq1F0AAAA2>
- **ORCID:** 0000-0002-4510-1011
- **ResearchGate:** <https://www.researchgate.net/profile/Basem-Alrifai>
- **Scopus ID:** 36679807600  
<https://www.scopus.com/authid/detail.uri?authorId=36679807600>
- **Web of Science Researcher ID:** IQV-0672-2023
- **Researcher ID:** rid53405
- <https://www.linkedin.com/in/basem-alrifai-00591ba5>

### **ACADEMIC DEGREES (EDUCATION)**

1. **PhD in Computer System Engineering (2003)**  
Tver State Technical University, Russia  
*Specialty:* Expert System “Artificial Intelligence” of Computer Information Processing Networks
2. **Master Degree in Computer System Engineering (2000)**  
Tver State Technical University, Russia  
*Focus:* Electronic Computers Systems Complexes and Networks
3. **Professional Diploma in Software Engineering Project Management (1999)**  
Tver State Technical University, Russia
4. **Bachelor in Computer System Engineering (1997)**  
Tver State Technical University, Russia
5. **Professional Diploma in Russian Literature (1997)**  
Tver University, Russia

## **PROFESSIONAL & ACADEMIC EXPERIENCE**

### **1. Assistant Professor — Department of Computer Sciences**

**Faculty of Information Technology, Jadara University**

*Irbid, Jordan*

**September 2023 – Present**

### **2. Assistant Professor — Faculty of Information Technology & Communication**

**Prince Abdullah Bin Ghazi Faculty, Al-Balqa' Applied University**

*Al-Salt, Jordan*

**September 2005 – September 2023**

#### **Academic Roles Across Multiple Departments:**

- Computer Sciences Department
- Software Engineering Department
- Computer Systems Engineering Department
- Artificial Intelligence Department

### **3. Lecturer — Computer Information Systems Department**

**Faculty of Information Technology, Delmon University for Science & Technology**

*Manama, Bahrain*

**January 2004 – September 2005**

### **4. Lecturer — Information Technology Department**

**Andalos College**

*Amman, Jordan*

**September 2003 – January 2004**

### **5. Part-Time Lecturer — Computer Engineering Department**

**Faculty of Engineering, Tver State Technical University**

*Tver, Russia*

**September 1999 – June 2003**

## **Leadership, Governance & Program Management**

**Al-Balqa' Applied University & Jadara University**

- **Head of Departments** (Sep 2006 – Sep 2010, Al-Balqa' Applied University): Led IT, Computer Science, CIS, Software Engineering, and Postgraduate Departments.
- **Program Manager**, Jordan Electronic Academy (Jan 2007 – Sep 2014).
- **Curriculum Development**: Designed study plans for Bachelor programs in Computer Engineering, Computer Science, AI, and Software Engineering.
- **University Governance**: Member of the University, College, and Department Councils at both Al-Balqa' Applied University and Jadara University.
- **Community Service**: Actively engaged in local community service and academic outreach initiatives.

## **RESEARCH INTERESTS / AREAS OF EXPERTISE**

- Artificial Intelligence (AI), Machine Learning, and Deep Learning
- Cybersecurity, Network Security, and Intrusion Detection Systems
- Internet of Things (IoT) and Internet of Medical Things (IoMT) Security
- Wireless Networks, 5G Resource Allocation, and Network Optimization
- Expert Systems, System Analysis, and Intelligent Decision Support

## **PUBLICATIONS**

### **A. Publications in English (Refereed Journals & Conferences)**

1. "Optimizing 5G Resource Allocation with Reinforcement Learning: A Q-Learning and Deep Q-Network (DQN) Approach," *Journal of Advances in Information Technology*, Vol. 16, No. 11, 2025(Q2)
2. "Enhancing Internet of Things (IoT) Network Security: A Machine Learning-Driven Framework for Real-Time Intrusion Detection and Anomaly Classification," *Mesopotamian Journal of Cybersecurity*, Vol. 5, No. 3, 2025. [Q2]
3. "Advancing IoMT Security: Machine Learning-Based Detection and Classification of Multi-Protocol Cyberattacks," *Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JoWUA)*, Vol. 16, No. 2, June 2025. [Q2]
4. "A Simple Approach to Connecting Pt100 by Utilizing an Electroacoustic Resonance Tube," *Sensors (MDPI)*, 23, 2775, 2023. [Q1]
5. "Using Moore Dijkstra Algorithm With Multi Agent System To Find Shortest Path Over Network," *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 6, Issue 6, June 2015. [Q3]
6. "A Novel Wireless and Mobile E-Health Expert System," *International Journal of Computer Science (IJCSI)*, Vol. 12, Issue 2, March 2015
7. "Investigating Biogeography-Based Optimizing for Patient Admission Scheduling Problems," *Journal of Theoretical Applied Information Technology (JATIT)*, Vol. 70, Issue 3, Oct 2014. [Q4]
8. "An Adaptive Color Night Vision Scheme Tuned Enhanced Particle Swarm Optimization," *International Journal of Computer Applications*, Vol. 87 – No. 6, Feb 2014

9. "An Intelligent Watermarking Approach Based Particle Swarm Optimization in Discrete Wavelet Domain," *International Journal of Computer Science (IJCSI)*, Vol. 10, Issue 2, March 2013
  10. "Recognizing Handwriting Indian Numbers using Neural Network," *International Journal of Scientific Knowledge*, Vol. 1, Issue 2, Oct 2012
  11. "Using New Data Structure to Implement Documents Vectors in Vector Space Model in Information Retrieval System," *Journal of Theoretical Applied Information Technology (JATIT)*, Vol. 19, Issue 1, 2010. [Q4]
  12. "Probabilistic Artificial Neural Network For Recognizing the Arabic Hand Written Characters," *Journal of Computer Science*, 2 (12): 879-884, 2006
  13. "Defining Primitives for Mobile E-Learning," *First International Conference on E-Learning and Blended Education (ICELBE 2012)*
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## **B. Publications in Russian Language (Journals & Conferences)**

14. "Synthesis of an Expert System for Analysis of Models and Structures of Computer Network," *Journal of Intellectual Control and Information Processing Systems*, Vol. 32, Issue 2, 2001
15. "Complex Designing of An Expert System for Choice of LAN Structure for Training Student," *Materials of the All Russia Extra Mural Conference*, Tver, 2001
16. "An Expert System for Analysis of Computer Network," *Materials of the all Russia Extra Mural Conference*, Tver, 2002
17. "Features of Flow Management in Networks with a Virtual Connection," Tver, 2002
18. "Decision-making support in processing of Computer Networks," *Journal of Information Technologies in Solving Problems of Industry*, Vol. 5, Issue 4, 2002
19. "Expert system of Computer Networks synthesis," *Materials of International Scientific and Technical Conference*, Tver, 2003

## **TEACHING EXPERIENCE**

### **“GRADUATE-LEVEL COURSES**

1. Software Design and Testing
2. Networks and Communication
3. Database Systems
4. Operating Systems
5. Software Engineering
6. Algorithms

### **UNDERGRADUATE-LEVEL COURSES**

#### **Software Engineering & Development**

- Software Construction & Component

- Software Design & Architecture
- Real-Time Software Design
- Object-Oriented Software Engineering
- Software Quality Assurance
- Secure Software Engineering
- Distributed Systems
- Software Engineering & Software Development
- Foundations of Formal Methods and Software Analysis

## **Data & Analytics**

- Big Data and Data Analytics
- Machine Learning
- Decision Support Systems
- Data Structure

## **Information Systems & IT Management**

- Enterprise Resource Planning (ERP)
- Information System Management
- Information System Analysis and Design
- Internet Applications Development & Web Design
- Electronic Commerce

## **Networks & Security**

- Networks and Communication
- Wireless Networks Security Systems
- Network Security
- Network Monitoring and Documentation

## **Database & Operating Systems**

- Database Systems
- Operating Systems

## **Computer Architecture & Programming**

- Digital Logic
- Microprocessor Systems
- Computer Architecture
- Applications in Computer Programming
- Object-Oriented Programming (C++, Java, Python)

## **CERTIFICATIONS, TRAINING & CONFERENCES**

- Microsoft Certificate of Excellence / Microsoft Certified (USA)
- Microsoft Certified Technology Specialist (MCTS) (USA)
- MCTS: Microsoft Windows SharePoint Services Configuration (USA)
- Cisco Networking Academy Certified (IT Essentials & Network Security)
- Cisco Networking Academy® program MemberData and Network Security Training Course (Arab Federation for Technical Education)
- Successfully Completed MCTS: SharePoint Services Configuration Training (GOA India, 2010)
- Microprocessor and Microcontroller Design for Technicians (Al-Balqa Applied University, 2013)
- Software Design Workshop (Al-Balqa Applied University, 2014)
- Successfully Completed IT course as part of the Cisco Networking Academy® program (2018)
- IEEE Jordan International Joint Conference on Electrical Engineering and IT (2023)
- International Conference on Business Information Technology and Intellectual Economics (2019)
- First International Conference on E-Learning (ICELBE 2012)
- Networking and Electronic Commerce Research Conference (Italy, 2007)
- Higher Education Reform for Knowledge Economy (Jordan, 2006)

## **COMPUTER SKILLS**

### **Operating Systems:**

- Ms-DOS, Windows, UNIX, Linux (Kali), Android, macOS

### **Security Tools:**

- Sprinto, Kali Linux, Kismac, Nessus Professional, Wireshark, X Ways Forensics

### **Programming Languages:**

- C++, Python, Visual Basic, Java, Assembly Language

### **Web Development:**

- Web design (Macromedia Dreamweaver & Flash), HTML, JavaScript, Visual Studio, Developer Chrome

### **Design & Analysis Tools:**

- Structure System Analysis and Design, Oracle 8 server & SQL, UML Case Tools, Smart Draw

**Project Management:**

- Microsoft Project, Monday, Team Center, ERP System

**PROFESSIONAL MEMBERSHIPS**

- Member, Microsoft Professional Community (USA)
- Member, Jordan Engineers Association
- Member, Jordan Computer Society
- Member, ICT Associations of Jordan
- Member, Cisco Networking Academy® Program

**LANGUAGES**

- Arabic: Native
- English: Excellent (Written & Spoken)
- Russian: Excellent (Written & Spoken)

**REFERENCES**

1. **Dr. Khalaf Katatneh** – Al-Balqa' Applied University  
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2. **Dr. Nijad Al Najdawi** – Al-Balqa' Applied University  
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