

## Curriculum Vita (C.V.)



**Full Name:** Mishall Al-Zubaidie

**Address:** Iraq

**Gender:** Male

**Languages:** English and Arabic

**E-mail address:** [mishall\\_zubaidie@utq.edu.iq](mailto:mishall_zubaidie@utq.edu.iq)

**General specialization:** Computer Science/Network Communications

**Exact specialization:** Incorporating security into an electronic health record with a wireless sensor network

### Affiliation:

1. Department of Computer Sciences, Education College for Pure Sciences, University of Thi-Qar, Nasiriyah, 64001, Iraq
2. Faculty of Health, Engineering and Sciences, University of Southern Queensland, Australia

**Web:** [https://www.researchgate.net/profile/Mishall\\_Alz](https://www.researchgate.net/profile/Mishall_Alz)

**Web:** <https://scholar.google.com.au/citations?user=3V-Ns6sAAAAJ&hl=en>

**Web:** <https://www.scopus.com/authid/detail.uri?authorId=57207948798>

**Web:** <https://www.webofscience.com/wos/author/record/J-6540-2014>

**Web:** <https://orcid.org/0000-0002-3149-9129/print>

**Web:** [https://www.growkudos.com/profile/mishall\\_al-zubaidie](https://www.growkudos.com/profile/mishall_al-zubaidie)

**h-index:** 16 (Scopus)

**ORCID:** <https://orcid.org/0000-0002-3149-9129>

### Certificates:

No.	Degree	College/University	Department	Year of Graduation	Country
1-	Master	University of Basrah/ Science College	Computer Science	2010	Iraq
2-	Doctorate	University of Southern Queensland/ Faculty of Health, Engineering and Sciences	Agriculture, Computational, Environmental Sciences	2020	Australia

### Interests:

- Network communications
- Data security and privacy
- Authorising and authenticating users in Electronic Medical Record (EMR)
- Authorising and authenticating users in Electronic Health Record (EHR)
- Incorporating security and privacy into Health Wireless Sensor Network (HWSN)
- Public-Key cryptography
- Lightweight hash functions
- Anonymity and pseudonymity techniques
- XML/XACML policies and authorisation
- Keys exchange and session keys
- WSN performance
- Protection of MAC address
- Routing protocols (LEACH/SPIN/DEEC/PEGASIS)
- Keys exchange/agreement algorithm in health systems
- Security in IoT and smart cities

- Cybersecurity in the health sector
- Research in Cybersecurity
- Cybersecurity Programs and Policies
- Security, and privacy challenges in smart cities
- Security and Forensics
- Blockchain and Integrity Techniques
- Quantum cryptography keys and signatures
- Multi Factors Authentication for modern applications

### Scientific Experience:

**A-Scientific address:** Lecturer (Associate Professor, Dr.)

### B-Published Papers:

- 1- Al-Zubaidie, Mishall Hammed, Samah Mahmood Ahmed, and Raad Muhajjar. "A Cryptocurrency Security System Utilizing HashiCorp to Support Digital Wallet Privacy." *Resilient Privacy-Preserving Mechanisms for Digital Identity Management*. IGI Global Scientific Publishing, 2026. 105-138.
- 2- Hamad, A. K., & Al-Zubaidie, M. (2026). A Hybrid Multi-Factor Authentication System with GPS-Based on SPECK Encryption in Oil Cybersecurity. *Applied Data Science and Analysis*, 2026, 17-40.
- 3- Ahmed, S. M., Muhajjar, R. A., & Al-Zubaidie, M. (2025, May). A Blockchain Key Management Approach to Protect Cryptocurrency Data. In *2025 3rd International Conference on Business Analytics for Technology and Security (ICBATS)* (pp. 1-6). IEEE.
- 4- Tregi, T. G., & Al-Zubaidie, M. (2025, May). Lightweight Quantum Signatures for Smart City Data Integrity and Accuracy. In *2025 3rd International Conference on Business Analytics for Technology and Security (ICBATS)* (pp. 1-7). IEEE.
- 5- Al-Zubaidie, M. H., & Tregi, T. G. (2026). Securing Smart Cities Data Using Quantum Techniques and Preventing the Alteration of Citizens' Information. In *AI, Cybersecurity, and Next-Generation Mobility in Smart Cities* (pp. 199-234). IGI Global Scientific Publishing.
- 6- Al-Zubaidie, M. H., & Tregi, T. G. (2026). Protecting Data of Power Stations in Smart Cities Using Quantum-Resistant and Zero-Knowledge Proof. In *Securing Smart Cities Through Modern Cryptography Technologies* (pp. 225-262). IGI Global Scientific Publishing.
- 7- Al-Zubaidie, M., & Tregi, T. G. (2025). A Quantum Resilient Security System for Smart Power Grid Data: Combining Kyber, FALCON, and Zero-Knowledge Proofs Against Quantum Threats. *Applied Data Science and Analysis*, 2025, 201-220.
- 8- Al-Zubaidie, M., & Jebbar, W. A. (2025). Blockchain-Powered Dynamic Segmentation in Personal Health Record. *Mesopotamian Journal of CyberSecurity*, 5(3), 953-976.
- 9- Al-Tameemi, H. A., Shayea, G. G., Al-Zubaidie, M., Khaleel, Y. L., Habeeb, M. A., Hussein, N. A. H. K., ... & Albahri, A. S. (2025). A Systematic review of metaverse cybersecurity: Frameworks, challenges, and strategic approaches in a quantum-driven era. *Mesopotamian Journal of CyberSecurity*, 5(2), 770-803.
- 10- Al-Zubaidie, M. (2025). A Critical Reliable Model for Promoting Patient Medical Wireless Sensors Information Security. *Procedia Computer Science*, 263, 17-24.
- 11- Jebbar, W. A., & Al-Zubaidie, M. (2025). Improving Security in E-Transaction Blockchain Systems by Segmenting Processes into Separate Zones and Using Smart Contracts Arbitration. *Iraqi Journal of Science*, 2502-2522.
- 12- R. H. Razzaq, D. H. Tahayur, W. A. Jebbar, and M. Al-Zubaidie, "Sturdy Blockchain Combined with E-apps Repositories Based on Reliable Camouflaging and Integrating Mechanisms", *International Journal of Computer Network and Information Security (IJCNIS)*, vol. 17, No. 3, pp. 35-53, June 2025.
- 13- D. H. Tahayur, W. A. Jebbar, R. H. Razzaq, and M. Al-Zubaidie, "Dependable Concealing Algorithm of E-apps Repositories Combined with a Robust Blockchain Approach", *ARIS2-Journal*, vol. 4, no. 2, pp. 32–56, Dec. 2024.
- 14- Al-Zubaidie, M. H., & Tahayur, D. H. (2025). Security Cooperation in the Protection Concerns of Agriculture Data Using Efficient Signatures and Artificial Bee Colony Manner. In *Sustainable Information Security in the Age of AI and Green Computing* (pp. 439-460). IGI Global Scientific Publishing.

- 15- Al-Zubaidie, M. H., & Jebbar, W. A. (2025). Optimization Solution Proposal for Smart Transaction Security of Smart Blockchain Contracts in E-Banking Applications. In *Sustainable Information Security in the Age of AI and Green Computing* (pp. 295-320). IGI Global Scientific Publishing.
- 16- Al-Zubaidie, M. H., & Razzaq, R. H. (2025). Combining Fog Computing and Blockchain Based on the Internet of Medical Things to Preserve Patient Information Privacy. In *Sustainable Information Security in the Age of AI and Green Computing* (pp. 525-546). IGI Global Scientific Publishing.
- 17- Tregi, T. G., & Al-Zubaidie, M. (2025). Enhancing Traffic Data Security in Smart Cities Using Optimized Quantum-Based Digital Signatures and Privacy-Preserving Techniques. *Mesopotamian Journal of CyberSecurity*, 5(1), 256-272.
- 18- Tahayur, D. H., & Al-Zubaidie, M. (2025, March). Establishing an optimized searching approach with e-signatures based on blockchain for electronic agriculture applications. In *AIP Conference Proceedings* (Vol. 3264, No. 1). AIP Publishing.
- 19- Duaa Hammoud Tahayur and Mishall Al-Zubaidie (2025). Establishing an optimized searching approach with e-signatures based on blockchain for electronic agriculture applications. *AIP Conf. Proc.* 3264 (1), 030001. <https://doi.org/10.1063/5.0258784>.
- 20- Razzaq, R. H., Al-Zubaidie, M., & Atiyah, R. G. (2024). Intermediary Decentralized Computing and Private Blockchain Mechanisms for Privacy Preservation in the Internet of Medical Things. *Mesopotamian Journal of CyberSecurity*, 4(3), 152-165.
- 21- Al-Zubaidie, M., Muhajjar, R. A., & Shihabe, L. A. (2024). Computer Networking and Cloud-Based Learning/Teaching Environment Using Virtual Labs Tools: A Review and Future Aspirations. *Mesopotamian Journal of Computer Science*, 2024, 176–203. <https://doi.org/10.58496/MJCSC/2024/015>
- 22- Al-Salman, Wessam; Al-Khafaji, Ali Basim; and Al-Zubaidie, Mishall (2024) "Classification Manner Utilizing Electroencephalography Signals to Investigate Waveforms," *Karbala International Journal of Modern Science*: Vol. 10: Iss. 4, Article 8. Available at: <https://doi.org/10.33640/2405-609X.3377>.
- 23- Jebbar, W.A., Al-Zubaidie, M. Transaction-Based Blockchain Systems Security Improvement Employing Micro-Segmentation Controlled by Smart Contracts and Detection of Saddle Goatfish. *SN COMPUT. SCI.* 5, 898 (2024). <https://doi.org/10.1007/s42979-024-03239-9>.
- 24- Tahayur, D. H., & Al-Zubaidie, M. (2024). Enhancing Electronic Agriculture Data Security with a Blockchain-Based Search Method and E-Signatures. *Mesopotamian Journal of CyberSecurity*, 4(3), 129-149.
- 25- Al-Zubaidie, M. H., & Razzaq, R. H. (2024). Maintaining Security of Patient Data by Employing Private Blockchain and Fog Computing Technologies based on Internet of Medical Things. *Informatica*, 48(12).
- 26- Razzaq, R. H., & Al-Zubaidie, M. (2024). Formulating an Advanced Security Protocol for Internet of Medical Things based on Blockchain and Fog Computing Technologies. *Iraqi Journal for Computer Science and Mathematics*, 5(3), 723-734.
- 27- Jebbar, W. A., Razzaq, R. H., Tahayur, D. H., & Al-Zubaidie, M. (2024). Blockchain and Cryptography Framework of E-Apps with Big Data. *Journal of Education for Pure Science-University of Thi-Qar*, 14(3).
- 28- Al-Zubaidie, M., & Jebbar, W. A. (2024). Providing Security for Flash Loan System Using Cryptocurrency Wallets Supported by XSalsa20 in a Blockchain Environment. *Applied Sciences*, 14(14), 6361.
- 29- Jebbar, W. & Al-Zubaidie, M. (2024). Transaction Security and Management of Blockchain-Based Smart Contracts in E-Banking-Employing Microsegmentation and Yellow Saddle Goatfish. *Mesopotamian Journal of CyberSecurity*, 4(2), 1-19.
- 30- Al-Zubaidie, M., & Muhajjar, R. A. (2024). Integrating Trustworthy Mechanisms to Support Data and Information Security in Health Sensors. *Procedia Computer Science*, 237, 43-52.
- 31- Jebbar, W. and Al-Zubaidie, M. (2024). Transaction Security and Management of Blockchain-Based Smart Contracts in E-Banking-Employing Microsegmentation and Yellow Saddle Goatfish. *Mesopotamian Journal of CyberSecurity*, 4(2), 71-89.
- 32- Yousiff, S. A., Muhajjar, R. A., & Al-Zubaidie, M. H. (2023). Designing A Blockchain Approach to Secure Firefighting Stations Based Internet of Things. *Informatica*, 47(10).
- 33- Shyaa, G. S., & Al-Zubaidie, M. (2023). Securing Transactions Using Hybrid Cryptography in E-commerce Apps. *Journal of Education for Pure Science-University of Thi-Qar*, 13(3).
- 34- Abdulnabi, M. W., Muhajjar, Raad A. and Mishall Al-Zubaidie (2023). Elliptic Curve Implementation and its Applications: A Review. *Iraqi Journal of Intelligent Computing and Informatics (IJICI)*, 2(2), 90-100.
- 35- Al-Zubaidie, M., & Shyaa, G. S. (2023). Applying Detection Leakage on Hybrid Cryptography to Secure Transaction Information in E-Commerce Apps. *Future Internet*, 15(8), 262.
- 36- Shyaa, G. S., & Al-Zubaidie, M. (2023). Utilizing Trusted Lightweight Ciphers to Support Electronic-Commerce Transaction Cryptography. *Applied Sciences*, 13(12), 7085.

- 37- Muhajjar, Raad A., Nahla A. Flayh, and Mishall Al-Zubaidie. "A Perfect Security Key Management Method for Hierarchical Wireless Sensor Networks in Medical Environments." *Electronics* 12.4 (2023): 1011.
- 38- Al-Zubaidie, Mishall. "Implication of Lightweight and Robust Hash Function to Support Key Exchange in Health Sensor Networks." *Symmetry* 15, no. 1 (2023): 152.
- 39- Al-Zubaidie, Mishall, Zhang, Zhongwei and Zhang, Ji., "User authentication into electronic health record based on reliable lightweight algorithms". In *Handbook of Research on Cyber Crime and Information Privacy* (pp. 700-738). IGI Global. (2021).
- 40- Al-Zubaidie, Mishall, Zhang, Zhongwei and Zhang, Ji. "REISCH: Incorporating lightweight and reliable algorithms into healthcare applications of WSNs." *Applied Sciences* 10, no. 6 (2020): 2007.
- 41- Al-Zubaidie, Mishall, Zhang, Zhongwei and Zhang, Ji. "PAX: using pseudonymization and anonymization to protect patients' identities and data in the healthcare system." *International journal of environmental research and public health* 16, no. 9 (2019): 1490.
- 42- Al-Zubaidie, Mishall, Zhang, Zhongwei and Zhang, Ji. "RAMHU: A new robust lightweight scheme for mutual users authentication in healthcare applications." *Security and Communication Networks* 2019 (2019).
- 43- Al-Zubaidie, Mishall, Zhang, Zhongwei and Zhang, Ji. "Efficient and secure ECDSA algorithm and its applications: A survey." *International Journal of Communication Networks and Information Security*, no. 11 (2019), 7–35.
- 44- Awaad, Mishall H. "The use of dynamic sliding window with IPSec." *Journal of Education for Pure Science* 4, no. 1 (2014): 278-289.
- 45- Awaad, Mishall H., and Wid A. Jebbar. "Prolong the lifetime of WSN by determining a correlation nodes in the same zone and searching for the best not the closest CH." *International Journal of Modern Education and Computer Science* 6, no. 11 (2014): 31.
- 46- Awaad, Mishall Hammed. "Improve the effectiveness of sensor networks and extend the network lifetime using 2BSs and determination of area of CHs choice." *Journal of Computer Science and Control Systems* 7, no. 1 (2014): 15.
- 47- Marhoon, Ali F., Mishall H. Awaad, and Wid A. Jebbar. "A new algorithm to improve LEACH protocol through best choice for cluster-head." *International Journal of Advances in Engineering Sciences* 4, no. 4 (2014).
- 48- Awaad, Mishall Hammed, and Wid Alaa Jebbar. "Study to analyze and compare the LEACH protocol with three methods to improve it and determine the best choice." *Journal of Computer Science & Control Systems* 7, no. 2 (2014).
- 49- Marhoon, Ali F., and Mishall H. Awaad. "Reduce energy consumption by improving the LEACH protocol." *International Journal of Computer Science and Mobile Computing* 3, no. 1 (2014): 01-09.
- 50- Awaad, Mishall H., and Wid A. Jebbar. "Extending the WSN lifetime by dividing the network area into a specific zones." *International Journal of Computer Network and Information Security* 7, no. 2 (2015): 33.
- 51- Awaad, Mishall H. An enhanced routing algorithm in LEACH protocol to expand the sensor network lifetime. *Wireless Communication*, [S.l.], v. 7, no. 2, p. 37-43, Mar. 2015. Available at: <<http://www.citresearch.org/dl/index.php/wc/article/view/WC022015002>>.

### **C- Reviewer Board**

- 1- Symmetry- MDPI  
[https://www.mdpi.com/journal/symmetry/submission\\_reviewers](https://www.mdpi.com/journal/symmetry/submission_reviewers)
- 2- Electronics- MDPI  
[https://www.mdpi.com/journal/electronics/submission\\_reviewers](https://www.mdpi.com/journal/electronics/submission_reviewers)
- 3- Healthcare- MDPI  
[https://www.mdpi.com/journal/healthcare/submission\\_reviewers](https://www.mdpi.com/journal/healthcare/submission_reviewers)
- 4- Journal of Education for Pure Science- University of Thi-Qar  
<https://jceps.utq.edu.iq/index.php/main/ReviewersBoard>

### **D- Editorial Board**

- 1- International Journal of Information Security Engineering

- <https://journals.stmjournals.com/editorial-board/ijise/>
- 2- Journal of Education for Pure Science- University of Thi-Qar  
<https://jceps.utq.edu.iq/index.php/main/about/editorialTeam>
  - 3- Electronics & Electrical Engineering Journal  
<https://www.nspublisher.com/journals/electronics-and-electrical-engineering/eee-editorial-board/>
  - 4- Information System and Sustainability Development  
<http://2oldtoolsacad.acad-pub.com/s.php/index/detail?id=374>
  - 5- Smart Healthcare Systems  
<http://2oldtoolsacad.acad-pub.com/s.php/index/detail?id=273>
  - 6- Mesopotamian Journal of CyberSecurity
  - 7- International Journal of Digital Technology and Network Security System  
<https://matjournals.com/Editorial-International-Journal-of-Digital-Technology-and-Network-Security-System.html>
  - 8- Journal of Computer Technology & Applications  
<https://journals.stmjournals.com/editorial-board/jocta/>

### **E- Editor Role (63 tasks)**

- 1- Journal of Web Engineering & Technology
- 2- Journal of Advances in Shell Programming
- 3- International Journal of Information Security Engineering
- 4- International Journal of Data Structure Studies
- 5- Mesopotamian Journal of CyberSecurity
- 6- Journal of Education for Pure Science- University of Thi-Qar
- 7- Journal of Computer Technology & Applications
- 8- International Journal of Digital Technology and Network Security System

### **F- Peer reviews (1272 Papers form 93 Journals):**

- 1- 188 papers Multimedia Tools and Applications
- 2- 160 papers - IEEE Access
- 3- 114 papers - Journal of The Institution of Engineers (India): Series B
- 4- 108 papers Telecommunication Systems
- 5- 83 papers - MDPI Electronics
- 6- 61 papers – Wireless Networks
- 7- 33 papers – SN Applied Sciences
- 8- 30 papers Journal of Big Data
- 9- 29 papers Wireless Personal Communications
- 10- 29 papers - Network Modeling Analysis in Health Informatics and Bioinformatics
- 11- 22 papers – MDPI Healthcare
- 12- 20 papers - MDPI Symmetry
- 13- 75 papers – SN Computer Sciences
- 14- 15 papers - Sensors
- 15- 10 papers - Applied System Innovation
- 16- 8 papers - Applied Sciences
- 17- 7 papers - International Conference on Industry Sciences and Computers Sciences Innovation (iSCSi)
- 18- 6 papers – International Journal of Environmental Research and Public Health
- 19- 5 papers - Asian Journal of Research in Computer Science
- 20- 4 papers - Information
- 21- 4 papers IoT MDPI
- 22- 4 papers Network
- 23- 2 papers – Elsevier Neuroscience
- 24- 2 papers – IEEE Network Magazine
- 25- 2 paper Sustainability

- 26- 2 papers Neuroscience
- 27- 2 paper – PeerJ Computer Science
- 28- 1 paper - International Journal of Computer Applications in Technology (IJCAT)
- 29- 1 paper Asian Journal of Education and Social Studies
- 30- 1 paper Journal of Engineering Research and Reports
- .
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- Etc.

### **G-Work experience:**

- 1- Lecturer for master's students (distribution systems, advanced communications and advanced data security) in Computer Science Department, College of Education for Pure Sciences, Thi-Qar University, Iraq, from 2021 to 2024.
- 2- Lecturer for bachelor's students (Microprocessor for second class, Compiler for third class, Software Engineering for third class, VB.net for third class, Network Communications, Data Security for fourth class) in Computer Science Department, College of Education for Pure Sciences, Thi-Qar University, Iraq, from 2010 to 2023.
- 3- Researcher assistant in the lab (computers hardware and software maintenance, networking, programming languages and logic design) of Computer Science Department, Science College, Shat Al-Arab University, Iraq, from 2004 to 2007.
- 4- Using validation tools such as AVISPA and Scyther to verify security schemes for many papers. These tools are formal in the testing of security protocols and are widely used in recent research.
- 5- Reviewing many papers in peer-reviewed journals such as IEEE Access, ELSEVIER-Neuroscience and Springer-SN Applied Sciences.
- 6- Designing and Dealing with employees' salaries (by using VB.Net with Access Database) in Department of Salary, Directorate of Basra Municipality, Basrah, Iraq, for 10 months.
- 7- Professional use of Operating Systems (Dos, Windows and Linux), Microsoft Office programs (Word, Excel, Access, Outlook, PowerPoint, FrontPage), programming languages (C& C++, Java, Pascal, Assembly, Prolog, FoxPro, Visual Basic, VB. Net, SPSS and MATLAB) and Montage and photo/video editing software (Photoshop, Ulead VideoStudio, Premiere).

### **H- SUPERVISION**

We have supervised master students; details are given below:

- 1- **Ghanima Sabr Shyaa**, thesis titled "Design Protocols for Protecting Business Transactions in E-Commerce Applications".
- 2- **Mohammed Wameedh Abdulnabi**, thesis titled "Performance Analysis and Comparison of Elliptic Curve Cryptography Digital Signature Algorithm".
- 3- **Wid Alaa Jebbar**, thesis titled "Protecting Customer Information in Banking Institutions by Utilizing Lightweight Security Measures".
- 4- **Rasha Halim Razzaq**, thesis titled "Towards Proposing and Applying Efficient Countermeasures to Secure Patient Records for the Internet of Medical Things Systems".
- 5- **Duaa Hammoud Tahayur**, thesis titled "Evolutionary E-Signatures to Guarantee Acceptable Protection for Collected Data and Increase Productivity within E-Agricultural Applications".
- 6- **Tuqa Ghani Tregi**, thesis titled "Secured Smart Cities Data based on Optimum Quantum Signatures".
- 7- **Samah Mahmoud Ahmed**, thesis titled "An Improved Blockchain-Based Key-Management Access Control for Cryptocurrency".
- 8- **Amal Khaleel Hamad**, thesis titled "New Authentication Factors of Oil Companies for Secure Validation in Cyber Transactions".

## **I- Biography**

Mishall Al-Zubaidie received a bachelor's degree in computer science from Basrah University, Iraq, in 2004, and a master's degree in the security of wireless networks from Basrah University, Iraq, in 2010. He received the PhD degree from the School of Agricultural, Computational and Environmental Sciences, Faculty of Health, Engineering, and Sciences, University of Southern Queensland, Australia, in 2020. His current research interests are public-key algorithms, authorising users in electronic health record (EHR), electronic medical record (EMR), and both security, efficiency of the wireless sensor network of health systems, key exchange/agreement algorithms in protecting patients' data/information, smart cities security, blockchain with e-health applications and quantum cryptography.