# 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
**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.webofscience.com/wos/author/record/J-6540-2014
**Web:** https://www.scopus.com/authid/detail.uri?authorId=57207948798
**Web:** https://orcid.org/0000-0002-3149-9129/print
**Web:** https://www.growkudos.com/profile/mishall_al-zubaidie
**Web:** https://www.researchgate.net/profile/Mishall_Alz
**h-index:** 5 (Scopus)
**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
- 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

## Scientific Experience:

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

### B-Published Papers:

1- 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).

2- 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).

3- 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.

4- 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.

5- Shyaa, G. S., & Al-Zubaidie, M. (2023). Utilizing Trusted Lightweight Ciphers to Support Electronic-Commerce Transaction Cryptography. *Applied Sciences*, *13*(12), 7085.

6- 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.

7- Al-Zubaidie, Mishall. "Implication of Lightweight and Robust Hash Function to Support Key Exchange in Health Sensor Networks." *Symmetry* 15, no. 1 (2023): 152.

8- 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).

9- 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.

10- 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.

11- 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).

12- 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.

13- Awaad, Mishall H. "The use of dynamic sliding window with IPSec." Journal of Education for Pure Science 4, no. 1 (2014): 278-289.

14- 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.

15- 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.

16- 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).

17- 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).

18- 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.

19- 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.

20- 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.ciitresearch.org/dl/index.php/wc/article/view/WC022015002.>.

### C- Reviewer Board

1- Symmetry- MDPI
https://www.mdpi.com/journal/symmetry/submission_reviewers

2- Electronics- MDPI
https://www.mdpi.com/journal/electronics/submission_reviewers
3- Healthcare- MDPI
https://www.mdpi.com/journal/healthcare/submission_reviewers

**D- Editorial Board**

1- Electronics & Electrical Engineering Journal
https://www.nspublisher.com/journals/electronics-and-electrical-engineering/eee-editorial-board/
2- International Journal of Information Security Engineering
https://journals.stmjournals.com/editorial-board/?abbr=ijise

**E- Editor Role**

**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

**F- Peer reviews (914 Papers form 58 Journals):**

1- 176 papers Multimedia Tools and Applications
2- 105 papers Telecommunication Systems
3- 102 papers - Journal of The Institution of Engineers (India): Series B
4- 101 pagers - IEEE Access
5- 83 papers - MDPI Electronics
6- 37 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- 19 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 forth 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".

**I- Biography**

Mishall Al-Zubaidie received the bachelor's degree in computer science from Basrah University, Iraq, in 2004, and the master's degree in the security of the wireless network from Basrah University, Iraq, in 2010. He received the PhD degree with 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 and keys exchange/agreement algorithms in protecting patients' data/information.