Yousef K. Sanjalawe

Assistant Professor in Cybersecurity & Cloud Computing

y.sanjalawe@ju.edu.jo @yousefksinjlawi

https://www.linkedin.com/in/dr-yousef-sanjalawe-523606134

Google Scholar: https://scholar.google.com/citations?user=0O9b6lsAAAAJ&hl=en

Mobile: 00962-795999966

Employment History

2024 –now
- **Assisstant Professor, Department of Information Technology**, The University of Jordan (JU), Jordan.
- **Senior Trainer and Consultant**, The College of Excellence (CoE), Saudi Arabia.

2023 –2024
- **Chair of Cybersecurity Department**, American University of Madaba (AUM), Jordan.

2022 –2024
- **Assisstant Professor in Cybersecurity**, American University of Madaba (AUM), Jordan.

2020 –now
- **Field Supervisor for Ph.D. students in Cybersecurity**, Universiti Sains Malaysia (USM), Malaysia.

2019 –2024
- **Senior Trainer**, Ministry of Communications and Information Technology (MoCIT), Future Skills Initiative, Saudi Arabia.
- **Trainer of Data Science, AI, Deep Learning, Computer Vision, & Business Intelligence**
- **Trainer of Ethical Hacking and Penetration Testing Trainer**
- **Trainer of DevOps**
- **Traniner of ITIL, CLOUD+, CISSP, NETWORK +, SECURITY +**
- **Traniner of Software Automation Testing, API Testing**

2019 –2022
- **Educational Consultant and Administrator of Registration System**, Northern Border University (NBU), Saudi Arabia.

2016 –2019
- **Chair of Computer Science Department**, Northern Border University (NBU), Saudi Arabia.

2014 –2019
- **Senior Lecturer**, Northern Border University (NBU), Saudi Arabia.
- **Head of Quality Assurance Unit at PY Deanship**, Northern Border University (NBU), Saudi Arabia
- **Head of Training and Development Unit at PY Deanship**, Northern Border University (NBU), Saudi Arabia
- **Member of the e-learning community council at PY Deanship**, Northern Border University (NBU), Saudi Arabia

Employment History (continued)

Coordinator of High Impact Education Practices (HIEPs) project, Northern Border University (NBU), Saudi Arabia

2012 –2014 **Teacher Assistant**, Yarmouk University, Jordan

2011 –2012 **Customer Service Representative**, Extensya, Jordan

2007 –2011 **System Administrator**, Al-madina for Financial Services, Jordan

Education

2017 – 2020 **Ph.D., Universiti Sains Malaysia (USM) (the 146th position according to QS World University Rankings)**, National Advanced IPv6 Center of Excellence (NAv6), Malaysia.
Thesis title: *Enhanced Cloud Service Broker Selection Policy Based On Differential Evolution Algorithm*

2012 – 2014 **M.Sc. Computer Science, Yarmouk University**, Faculty of Information Technology, Jordan.
Thesis title: *An Efficient Information Retrieval System based on Optimized Crawler*.

2003 – 2007 **B.Sc. Computer Science, Jordan University of Science and Technology (JUST)**, Faculty of Information Technology, Jordan.

Research Publications

Patents

1. Y. Al-sanjalawe, A. Al-Daraiseh, S. Al-E'mari, A. Almomani, American-University-of-Madaba, and S. Fraihat, "A cryptographic system based on a chaotic random number generator. - auf einem chaotischen zufallszahlengenerator basierendes kryptografisches system," LIPPERT STACHOW Patentanwälte Rechtsanwälte Partnerschaft mbB, 46117 Oberhausen, DE, DE File Number: 20 2024 100 458.2, Feb 20, 2024. URL: https://register.dpma.de/DPMAregister/pat/register?lang=de&fromSprachWechselLink.

Journal Articles

1. Q. M. Alzubi, S. N. Makhadmeh, and Y. Sanjalawe, "Optimizing intrusion detection: Advanced feature selection and machine learning techniques using the cse-cic-ids2018 dataset," *Journal of Advances in Information Technology, Scopus Q2 Percentile 57%, WoS ESCI IF 0.9*, vol. 16, no. 3, pp. 283–302, 2025. DOI: 10.12720/jait.16.3.283-302.

2. Q. M. Alzubi, Y. Sanjalawe, S. N. Makhadmeh, and H. N. Fakhouri, "An enhanced method for intrusion detection systems in iot environment," *Cluster Computing, Scopus Q1 Percentile 87%, WoS SCIE IF 3.6*, 2025. DOI: https://doi.org/10.1007/s10586-024-04888-4.

3. S. Al-E'mari, Y. Sanjalawe, and A. Al-E'mari, "A comparative study of top ten leading cryptocurrencies in 2024," *Al-Basaer Journal of Business Research*, vol. 1, no. 1, 2025. URL: https://www.albasaer.org/index.php/abjbr/article/view/22.

4. S. Al-E'mari, Y. Sanjalawe, and A. Al-E'mari, "The role of artificial intelligence in enhancing financial decision-making and administrative efficiency: A systematic review," *Al-Basaer Journal of Business Research*, vol. 1, no. 1, 2025. URL: https://www.albasaer.org/index.php/abjbr/article/view/21.

5. S. Makhadmeh, M. Awadallah, S. Kassaymeh, *et al.*, "Recent advances in multi-objective cuckoo search algorithm, its variants and applications," *Archives of Computational Methods in Engineering, Scopus Q1 Percentile 97%, WoS SCIE IF 9.7*, no. 9, 2025. DOI: https://doi.org/10.1007/s11831-025-10240-9.

6. S. Makhadmeh, S. Fraihat, M. Awad, Y. Sanjalawe, M. A. Al-Betar, and M. A. Awadallah, "A crossover-integrated marine predator algorithm for feature selection in intrusion detection systems within iot environments," *Internet of Things, Scopus Q1 Percentile 96%, WoS SCIE IF 6*, 2025. DOI: https://doi.org/10.1016/j.iot.2025.101536.

7. Y. Sanjalawe, S. Al-E'mari, S. Fraihat, *et al.*, "A deep learning-driven multi-layered steganographic approach for enhanced data security," *Scientific Reports, Scopus Q1 Percentile 92%, WoS SCIE IF 3.8*, vol. 15, p. 4761, 2025. DOI: 10.1038/s41598-025-89189-5.

8. Y. Sanjalawe, S. Fraihat, M. Abualhaj, S. R. Al-E'Mari, and E. Alzubi, "Hybrid deep learning for human fall detection: A synergistic approach using yolov8 and time-space transformers," *IEEE Access, Scopus Q1 Percentile 87%, WoS SCIE IF 3.4*, vol. 13, pp. 41 336–41 366, 2025. DOI: 10.1109/ACCESS.2025.3547914.

9. Y. Sanjalawe, S. Fraihat, S. Al-E'mari, M. Abualhaj, S. Makhadmeh, and E. Alzubi, "A review of 6g and ai convergence: Enhancing communication networks with artificial intelligence," *IEEE Open Journal of the Communications Society, Scopus Q1 Percentile 94%, WoS SCIE IF 6.3*, 2025. DOI: https://doi.org/10.1109/OJCOMS.2025.3553302.

10. Y. Sanjalawe, S. Fraihat, S. Al-E'mari, M. Abualhaj, S. Makhadmeh, and E. Alzubi, "Ai-driven job scheduling in cloud computing: A comprehensive review," *Artificial Intelligence Review, Scopus Q1 Percentile 96%, WoS SCIE IF 10.7*, 2025. DOI: https://doi.org/10.1007/s10462-025-11208-8.

11. A. Ababneh, Y. Sanjalawe, S. Fraihat, S. Al-E'mari, and H. Alqudah, "Orbit weighting scheme in the context of vector space information retrieval.," *Computers, Materials & Continua, Scopus Q1 Percentile 79%, WoS SCIE IF 2.1*, vol. 80, no. 1, 2024. DOI: https://doi.org/10.32604/cmc.2024.050600.

12. N. Almi'ani, M. Anbar, S. Karuppayah, *et al.*, "Feature selection and 1dcnn-based ddos detection in software-defined networking.," *Engineering Letters, Scopus Q2 Percentile 53%, WoS ESCI IF 0.4*, vol. 32, no. 7, 2024. URL: https://www.engineeringletters.com/issues_v32/issue_7/EL_32_7_27.pdf.

13. M. Bany Taha, Y. Sanjalawe, A. Al-Daraiseh, S. Fraihat, and S. Al-E'mari, "Proactive auto-scaling for service function chains in cloud computing based on deep learning," *IEEE Access, Scopus Q1 Percentile 87%, WoS SCIE IF 3.4*, 2024, Web of Science and Scopus Indexed, Q1, IF 3.37. DOI: https://doi.org/10.1109/ACCESS.2024.3375772.

14. A. Al-daraiseh, Y. Sanjalawe, S. Fraihat, and S. Al-Emari, "Novel, fast, strong, and parallel: A colored image cipher based on sbtm cprng," *Symmetry, Scopus Q1 Percentile 94%, WoS SCIE IF 2.2*, 2024, MDPI, Q1, IF 2.7. DOI: https://doi.org/10.3390/sym16050593.

15. F. A. Zwayed, M. Anbar, S. Manickam, *et al.*, "An efficient intrusion detection systems in fog computing using forward selection and bilstm," *Bulletin of Electrical Engineering and Informatics, Scopus Q1 Percentile 70%*, vol. 13, no. 4, pp. 2586–2603, 2024. DOI: https://doi.org/10.11591/eei.v13i4.7143.

16. T. Althobaiti and Y. Sanjalawe, "Securing cloud computing from flash crowd attack using intrusion detection system based on white shark optimizer and ensemble classifier," *Computer Systems Science and Engineering, Scopus Q1 Percentile 54%, WoS IF SCIE 2.2*, 2023, Web of Science Indexed, Q1, IF 4.39. DOI: http://dx.doi.org/10.32604/csse.2023.039207.

17. A. Al-Daraiseh, Y. Sanjalawe, S. Al-E'mari, S. Fraihat, M. Bany Taha, and M. Al-Muhammed, "Cryptographic grade chaotic random number generator based on tent-map," *Journal of Sensor and Actuator Networks, Scopus Q1 Percentile 82%, WoS IF ESCI 3.3*, 2023, Web of Science and Scopus Indexed, Q1, IF 4.41. DOI: https://doi.org/10.3390/jsan12050073.

18. S. Al-E'amri, Y. Sanjalawe, D. Alsmadi, E. Alduweib, and A. Alharbi, "Employing mutual information feature selection and lightgbm for intrusion detection in iot," *ICIC Express Letters*, 2023. DOI: 10.24507/icicel.18.06.597.

19 S. Al-E'mari, Y. Sanjalawe, A. Al-Daraiseh, M. Bany Taha, and M. Aladaileh, "Cloud datacenter selection using service broker policies: A survey," *Computer Modeling in Engineering Sciences, Scopus Q1 Percentile 54%, WoS IF SCIE 2.2*, 2023. DOI: https://doi.org/10.32604/cmes.2023.043627.

20 S. Al-E'mari, Y. Sanjalawe, and S. Frihat, "Detection of obfuscated tor traffic based on bidirectional generative adversarial networks and vision transform," *Computers and Security, Scopus Q1 Percentile 92%, WoS IF SCIE 4.8*, 2023, Web of Science and Scopus Indexed, Q1, IF 5.105. DOI: https://doi.org/10.1016/j.cose.2023.103512.

21 Y. Sanjalawe and S. Al-E'mari, "Abnormal transactions detection in the ethereum network using semi-supervised generative adversarial networks," *IEEE Access, Scopus Q1 Percentile 87%, WoS SCIE IF 3.4*, 2023, Web of Science and Scopus Indexed, Q1, IF 3.37. DOI: https://doi.org/10.1109/ACCESS.2023.3313630.

22 Y. Sanjalawe and T. Althobaiti, "Ddos attack detection in cloud computing based on ensemble feature selection and deep learning," *Computers, Materials Continua*, 2023, Web of Science Indexed, Q2, IF 3.86. DOI: https://doi.org/10.32604/cmc.2023.037386.

23 Y. Alsariera, A. Al Omari, M. Albawaleez, and Y. K. Sanjalawe, "Hybridized ba pso t-way algorithm for test case generation," *International Journal of Computer Science and Network Security*, 2022, Web of Science Indexed. DOI: https://doi.org/10.22937/IJCSNS.2021.21.10.48.

24 Q. Alzoubi, M. Anbar, Y. Sanjalawe, M. Albetar, and R. Abduallah, "Intrusion detection system based on hybridizing a modified binary grey wolf optimization and particle swarm optimization," *Expert Systems with Applications*, 2022, Web of Science Indexed, Q1, IF 8.66. DOI: https://doi.org/10.1016/j.eswa.2022.117597.

25 M. Aladaileh, M. Anbar, I. Hasbullah, and Y. K. Sanjalawe, "Information theory-based approaches to detect ddos attacks on software-defined networking controller: A review," *International Journal Of Education And Information Technologies*, vol. 15, 2021, Web of Science Indexed, Q2, IF 3.86. DOI: https://doi.org/10.46300/9109.2021.15.9.

26 M. Aladaileh, M. Anbar, I. Hasbullah, Y. K. Sanjalawe, and Y. Chong, "Entropy-based approach to detect ddos attacks on software defined networking controller," *CMC-Computers, Materials Continua*, 2021, Web of Science Indexed, Q2, IF 3.86. DOI: https://doi.org/10.32604/cmc.2021.017972.

27 S. Al-E'mari, M. Anbar, Y. K. Sanjalawe, S. Selvakumar, and I. Hasbullah, "Intrusion detection systems using blockchain technology: A review, issues and challenges," *Computer Systems Science and Engineering*, 2021, Web of Science Indexed, Q1, IF 4.397. DOI: 10.32604/csse.2022.017941.

28 M. Elenezi, M. Altwaiji, and Y. Sanajlawe, "Does online education support high impact educational practices (hieps)?" *International Journal of Educational Sciences*, vol. 32, no. 1-3, pp. 120–136, 2021, Web of Science Indexed. DOI: 10.31901/24566322.2021/32.1-3.1176.

29 Y. K. Sanjalawe, M. Anbar, and S. Al-E'mari, "Covid-19 automatic detection using deep learning," *Computer Systems Science and Engineering, Scopus Q1 Percentile 54%, WoS IF SCIE 2.2*, 2021. DOI: https://doi.org/10.32604/csse.2021.017191.

30 Y. K. Sanjalawe, M. Anbar, and Q. M. Al-zoubi, "An evaluation of identity and access management systems," *International Journal of Internet Technology and Secured Transactions*, vol. 11, no. 1, pp. 35–58, 2021, Scopus Indexed, Q3.

31 M. A. Aladaileh, M. Anbar, I. H. Hasbullah, Y. W. Chong, and Y. K. Sanjalawe, "Detection techniques of distributed denial of service attacks on software-defined networking controller: A review," *IEEE Access, Scopus Q1 Percentile 87%, WoS SCIE IF 3.4*, vol. 8, pp. 143 985–143 995, 2020, Web of Science Indexed, Q2, IF 3.476.

32 S. T. Alanazi, H. Al-bashiri, and Y. Sanjalawe, "A proposed erp data collector to converge the old legacy data into the new erp," *International Journal of Information Technology and Language Studies*, vol. 4, no. 2, 2020, Scopus Indexed.

33 H. Zaghloul, J. Alandejani, and Y. Sanajlawe, "A proposed plan to implement core competencies and high-impact educational practices in saudi universities in light of the experiences of some international universities," *International Journal of Education and Information Technologies*, vol. 14, pp. 223–240, 2020, Web of Science Indexed.

34 Y. K. Sanjalawe and M. Anbar, "Measuring the efficiency of using hadoop to analyze big data- a case study on twitter data set," *Journal of Theoretical Applied Information Technology*, vol. 95, no. 12, 2017, Scopus Indexed.

35 Y. K. Sanjalawe and M. Anbar, "The plagiarism detection systems for higher education - a case study in saudi universities," *International Journal of Software Engineering Applications*, vol. 8, no. 2, 2017, Scopus Indexed.

36 Y. K. Sanjalawe, M. Q. Al-Nabhan, and E. A. Abu-Shanab, "Addressing security and privacy issues in cloud computing," *Journal of Emerging Technologies in Web Intelligence*, vol. 6, no. 2, 2014, Scopus Indexed.

Conference Proceedings

1 S. Al-E'mari, Y. Sanjalawe, and T. Alqurashi, "Comparative evaluation of bio-inspired feature selection methods in intrusion detection," in *2ed International Conference on Cyber Resilience (ICCR) 2024*, Dubai, UAE, 2024.

2 S. Al-E'mari, Y. Sanjalawe, S. Makhadmeh, and H. Qudah, "Digital forensics meets blockchain: Enhancing evidence authenticity and traceability," in *2ed International Conference on Cyber Resilience (ICCR) 2024*, Dubai, UAE, 2024.

3 S. Al-E'mari, Y. Sanjalawe, and H. Qudah, "Integrating enhanced security protocols with moving object detection: A yolo-based approach for real-time surveillance," in *2ed International Conference on Cyber Resilience (ICCR) 2024*, Dubai, UAE, 2024.

4 S. Makhadmeh, Y. Sanjalawe, and H. Fakhouri, "Intrusion detection system using modified arithmetic optimization algorithm for large-scale iot," in *2ed International Conference on Cyber Resilience (ICCR) 2024*, Dubai, UAE, 2024.

5 R. Al-Sayyed, A. B. Alsayyed, B. Khasawneh, M. Alsayyed, F. Alhyari, and Y. Sanjalawe, "Smart tumor detection: Unleashing ai for superior accuracy and early diagnosis," in *The 5th Conference on Computer and Information Sciences (ISCIS2024)*, Accepted, 2024.

6 A. Ababneh and Y. Sanjalawe, "An efficient text classification technique based on a neural network and noise-words removal," in *24th International Arab Conference on Information Technology (ACIT2023)*, Ajman, UAE, 2023.

7 S. Al-E'mari and Y. Sanjalawe, "A review of reentrancy attack in ethereum smart contracts," in *3rd International Conference on Computing and Communication Networks (ICCCNet-2023)*, Scopus Indexed, Manchester, UK, 2023.

8 Y. Sanjalawe and S. Ale'mari, "Cloud computing simulators: A review," in *24th International Arab Conference on Information Technology (ACIT2023)*, Ajman, UAE, 2023.

9 F. Abu Zwayed, M. Anbar, Y. Sanjalawe, and S. Selvakumar, "Intrusion detection systems in fog computing – a review," in *International Conference on Advances in Cyber Security*, Accepted, Scopus Indexed, Singapore: Springer, 2021.

10 N. Al-Mi'ani, M. Anbar, Y. Sanjalawe, and S. Karuppayah, "Securing software defined networking using intrusion detection system- a review," in *International Conference on Advances in Cyber Security*, Accepted, Scopus Indexed, Singapore: Springer, 2021.

11 S. Al-E'mari, M. Anbar, Y. Sanjalawe, and S. Manickam, "A labeled transactions-based dataset on the ethereum network," in *International Conference on Advances in Cyber Security*, Scopus Indexed, Singapore: Springer, 2020, pp. 61–79.

12 S. T. Alanazi, M. Anbar, S. Karuppayah, A. K. Al-Ani, and Y. K. Sanjalawe, "Detection techniques for ddos attacks in cloud environment," in *Intelligent and Interactive Computing*, Scopus Indexed, Singapore: Springer, 2019, pp. 337–354.

Skills

Languages	Strong reading, writing, and speaking competencies in English.
Coding	Java, PHP, Python, R, SQL, C++.
Databases	MySQL, SQLSERVER.
Web Dev	HTML, CSS, JavaScript.
Misc.	Academic research, teaching, training, and consultation.

Miscellaneous Experience

Awards and Achievements

2014 **Top Performer in College**, Awarded the top-ranking position at IT College in the Master of Computer Information System program at Yarmouk University.

2022 **Training of Trainers (ToT)- Introductory Crash Course**, EDRAAK

- **Advanced Diploma in Training of Trainers (ToT)**, Alison Academy
- **Certificate of academic work practice** , Ministry of Higher Education & Scientific research, Jordan
- **IELTS Certificate**

Courses Taught

Cybersecurity and Risk Assessment - MSc
Linux for Cybersecurity
Data and Software Security
Cryptography
Introduction to Cybersecurity
Data and Software Security
Linux for Cybersecurity
Network Security
Object Oriented Programming
Database Management Systems
Fundamentals of Database
Data Structures
Operating systems
Introduction to Information Systems
Software engineering

Courses Taught (continued)

- Systems Analysis and Design
- Simulation in Business
- Enterprise Resource Planning (ERP)
- Business Intelligence using Power Bi
- Introduction to Artificial Intelligence
- Special Topics in BI
- Special Topics in AI
- API Testing

References

Available upon request