CURRICULUM VITAE

Moez KRICHEN

Named in the World's Top 2% of Scientists List in 2022 by Stanford University

Main topic of interest : *Design, Test and Validation of Distributed Systems*
Experience of *20 years* in Scientific Research and *15 years* in Teaching

PERSONAL INFORMATION

- Date and place of birth : May 15^{th}, 1980, Sfax, Tunisia
- Marital status : married
- Office address : ALBAHA University, Albaha, Saudi Arabia
- Phone : +966 5 56 77 96 18 (cel.)
- E-Mails : moez.krichen@redcad.org, mkreishan@bu.edu.sa
- Web : www.redcad.org/members/mkrichen

- Spoken languages: Arabic, English and French
- Number of collaborators $\simeq$ 50
- Number of co-supervised PhD students : 4
- Number of supervised master students : 7
- Number of published journal articles $\simeq$ 65
- Number of published conference papers $\simeq$ 65
- Number of citations $\simeq$ 3700
- H-index :40

EDUCATION

- H.D.R in Computer Science: [1] National School of Engineers of Sfax, Tunisia, August 2018
- Ph.D. in Computer Science: Joseph Fourier University, Grenoble, France, December 2007
- M.Sc. in Computer Science: Joseph Fourier University, Grenoble, France, June 2004
- Engineering Degree: Tunisia Polytechnic School, La Marsa, Tunisia, June 2003

[1] HDR = Habilitation à Diriger des Recherches (In French) = Ability to Conduct Researches

PROFESSIONAL ACTIVITIES

- Associate Professor in Computer Science

  June 2021-Present, Faculty of Computer Science and Information Technology, AlBaha University, AlBaha, Saudi Arabia

- Assistant Professor in Computer Science

  December 2014-June 2021, Faculty of Computer Science and Information Technology, AlBaha University, AlBaha, Saudi Arabia

- Assistant Professor in Computer Science

  September 2011-December 2014, National School of Engineers of Sfax-ENIS, University of Sfax, Tunisia

- Member of the Research Laboratory ReDCAD

  September 2008-Present, Research Laboratory of Development and Control of Distributed Applications-ReDCAD, ENIS, University of Sfax, Tunisia

- Assistant Professor in Computer Science

  September 2009-September 2011, Higher Institute of Computer Science and Multimedia of Sfax-ISIMS, University of Sfax, Tunisia

- Assistant Professor in Computer Science

  September 2008-September 2009, National School of Engineers of Sfax-ENIS, University of Sfax, Tunisia

- Joint Postdoc Position in the two Research Laboratories LAAS and VERIMAG

  March 2008-August 2008, National Scientific Research Center-CNRS, Toulouse, France

- Member of the team Timed and Hybrid Systems of the Research Laboratory VERIMAG

  March 2003-February 2008, Joseph Fourier University- UJF, Grenoble, France

AWARDS AND HONORS

- 2019-2022: Two Visits to Namur University (Belgium) Financed by Erasmus
- 2011: High-Level Scientific Stay funded by the French Institute in Tunisia
- 2009: Invited Professor/Reseracher Position at the Unviersity of Rennes I
- 2004: Scholarship from the French Ministry of Higher Education for Ph.D. Thesis
- 2003: Scholarship from the Tunisian Ministry of Higher Education for Doctoral Studies

TEACHING

- Introduction to Computer Systems
- Computer Architecture
- Operating Systems
- Algorithms
- Language Theory and Compilation
- System Modelling and Analysis with Petri Nets
- Quality and Test of Software
- Programming Language with Matlab

OTHER ACADEMIC ACTIVITIES

- Member of the Student Guidance Committee-Albaha University
  Period : 2015-2021
- Member of the Class Scheduling Committee-Albaha University
  Period : 2015-2021
- Member of the Information and Media Committee-Albaha University
  Period : 2016-2019
- Founding Member of the Computer & Information Technology Club-Albaha University
  Period : 20016-2019
- Member of the Artistic Committee-Albaha University
  Period : 20016-2017
- Participation to the Organization of Cultural Activities for Students-University of Sfax
  Period : 2011-2014

RESEARCH ACTIVITIES

Research Interests

- Model-Based Testing for Real-Time Systems
- Online Testing for Distributed and Dynamic Systems
- State Identification Problems for Timed Machines
- Deep Learning and Data Mining techniques
- Blockchains and Smart Contracts

H.D.R. Thesis

- Tittle : "*Contributions to Model-Based Testing of Dynamic and Distributed Real-Time Systems*"
- Institution : National School of Engineers of Sfax-ENIS, University of Sfax, Tunisia
- Period : December 2007-August 2018
- Date of defense : August 15^{th}, 2018

Ph.D. Thesis

- Tittle : "*Model Based Testing for Real-Time Systems*"
- Institution : Joseph Fourier University, Grenoble, France
- Period : September 2004-December 2007
- Date of defense : December 20^{th}, 2007

Conferences and Workshops Organization

- 16th International Conference on Verification and Evaluation of Computer and Communication Systems-VECOS 2023 (Springer)
  18-20 October 2023, Marrakech, Morocco
- 1st International Workshop on Modern Technologies for Natural Disasters Management-NaDiM 2023 (IEEE))
  5-6 December, 2023, Smart Village, Giza, Egypt
- 6th International Conference on Information and Knowledge Systems-ICIKS 2023 - Track 4: NLP for Decision Systems and Knowledge Management (Springer)
  22-23 June, 2023, Portsmouth, UK

Special Issues Editing

- Quality, Testing, and Validation for Emerging Technologies - 2023
  - Journal: Applied Sciences
  - Publisher: MDPI
- IoT in the Industry Revolution 4.0 - 2023
  - Journal: Electronics
  - Publisher: MDPI
- Electrochemical Energy Storage Technology and Management Systems for Vehicular Applications - 2022
  - Journal: Energies
  - Publisher: MDPI
- Artificial Intelligence Solutions For Decision Making In Robotics - 2022
  - Journal: Frontiers in Robotics and AI
  - Publisher: Frontiers
- Intelligent Data Analytics for Internet of Things-Based Applications - 2022
  - Journal: Mobile Information Systems
  - Publisher: Hindawi

Books Editing

- Emerging Disruptive Technologies for Society 5.0 in Developing Countries: Challenges and Applications - 2023 (Springer)
- Modeling Discrete and Continuous Systems Governed by Ordinary, Partial and Fractional Derivatives - 2023 (Springer)

Publications in International Journals

1. Snoun H, **Krichen M**, Chrif H. A comprehensive review of Gaussian atmospheric dispersion models: current usage and future perspectives. Euro-Mediterranean Journal for Environmental Integration. 2023;8(1):21942.

2. Sghaier S, **Krichen M**, Ben Dhaou I, Elmannai H, Alkanhel R. Identification, 3D-reconstruction, and classification of dangerous road cracks. Sensors. 2023;23(7):3578.

3. Say D, Zidi S, Qaisar SM, **Krichen M**. Automated Categorization of Multiclass Welding Defects Using the X-ray Image Augmentation and Convolutional Neural Network. Sensors. 2023;23(14):6422.

4. Safa M, Pandian A, Gururaj H, Ravi V, **Krichen M**. Real time health care big data analytics model for improved QoS in cardiac disease prediction with IoT devices. Health and Technology. 2023;13(3):47383.

5. Rudregowda S, Patil Kulkarni S, HL G, Ravi V, **Krichen M**. Visual Speech Recognition for Kannada Language Using VGG16 Convolutional Neural Network. In MDPI; 2023. p. 34353.

6. Rani S, Bashir AK, **Krichen M**, Alshammari A. A low-rank learning based Multi-Label Security Solution for Industry 5.0 Consumers using Machine Learning Classifiers. IEEE Transactions on Consumer Electronics. 2023;

7. Qaisar SM, Khan SI, Srinivasan K, **Krichen M**. Arrhythmia classification using multirate processing metaheuristic optimization and variational mode decomposition. Journal of King Saud University-Computer and Information Sciences. 2023;35(1):2637.

8. Mirza MA, Yu J, Raza S, **Krichen M**, Ahmed M, Khan WU, et al. DRL-assisted delay optimized task offloading in Automotive-Industry 5.0 based VECNs. Journal of King Saud University-Computer and Information Sciences. 2023;101512.

9. **Krichen M**, Basheer Y, Qaisar SM, Waqar A. A Survey on energy storage: Techniques and challenges. Energies. 2023;16(5):2271.

10. **Krichen M**. Strengthening the security of smart contracts through the power of artificial intelligence. Computers. 2023;12(5):107.

11. **Krichen M**. Convolutional Neural Networks: A Survey. Computers. 2023;12(8):151.

12. Hussien M, Nguyen KK, Ranjha A, **Krichen M**, Alshammari A, Cheriet M. Enabling efficient data integration of industry 5.0 nodes through highly accurate neural CSI feedback. IEEE Transactions on Consumer Electronics. 2023;

13. Himer SE, Ouaissa M, Ouaissa M, **Krichen M**, Alswailim M, Almutiq M. Energy Consumption Monitoring System Based on IoT for Residential Rooftops. Computation. 2023;11(4):78.

14. Han Z, Yang Y, Bilal M, Wang W, **Krichen M**, Alsadhan AA, et al. Smart Optimization Solution for Channel Access Attack Defense under UAV-aided Heterogeneous Network. IEEE Internet of Things Journal. 2023;

15. Chakir O, Rehaimi A, Sadqi Y, **Krichen M**, Gaba GS, Gurtov A. An empirical assessment of ensemble methods and traditional machine learning techniques for web-based attack detection in industry 5.0. Journal of King Saud University-Computer and Information Sciences. 2023;35(3):10319.

16. Abdalzaher MS, **Krichen M**, Yiltas-Kaplan D, Ben Dhaou I, Adoni WYH. Early Detection of Earthquakes Using IoT and Cloud Infrastructure: A Survey. Sustainability. 2023;15(15):11713.

17. Mihoub, A.; **Krichen, M.**; Alswailim, M.; Mahfoudhi, S.; Bel Hadj Salah, R. Road Scanner: A Road State Scanning Approach Based on Machine Learning Techniques. Applied Sciences 2023, 13, 683.

18. Zidi, S.; Mihoub, A.; Qaisar, S.M.; **Krichen, M.**; Al-Haija, Q.A. Theft Detection Dataset for Benchmarking and Machine Learning Based Classification in a Smart Grid Environment. Journal of King Saud University-Computer and Information Sciences 2022.

19. Qaisar, S.M.; Khan, S.I.; Srinivasan, K.; **Krichen, M.** Arrhythmia Classification Using Multirate Processing Metaheuristic Optimization and Variational Mode Decomposition. Journal of King Saud University-Computer and Information Sciences 2022.

20. Prithiviraj, A.; Maheswari, A.; Balamurugan, D.; Ravi, V.; **Krichen, M.**; Alroobaea, R.; Rubaiee, S.; Sennan, S. Multi-Criteria Fuzzy-Based Decision Making Algorithm to Optimize the VHO Performance in Hetnets. Comput Mater Continua 2022, 70, 323-341.

21. Mihoub, A.; Fredj, O.B.; Cheikhrouhou, O.; Derhab, A.; **Krichen, M.** Denial of Service Attack Detection and Mitigation for Internet of Things Using Looking-Back-Enabled Machine Learning Techniques. Computers & Electrical Engineering 2022, 98, 107716.

22. Mian Qaisar, S.; Alyamani, N.; Waqar, A.; **Krichen, M.** Machine Learning with Adaptive Rate Processing for Power Quality Disturbances Identification. SN Computer Science 2022, 3, 1-6.

23. Mechti, S.; **Krichen, M.**; Ben Noureddine, D.; Belguith, L.H. A Decision System for Computational Authors Profiling: From Machine Learning to Deep Learning. Concurrency and Computation: Practice and Experience 2022, 34, e5985.

24. Lopes, E.J.; Kataria, S.; Keshav, S.; Ikram, S.T.; Ghalib, M.R.; Shankar, A.; **Krichen, M.** Live Video Streaming Service with Pay-as-You-Use Model on Ethereum Blockchain and InterPlanetary File System. Wireless Networks 2022, 28, 3111-3125.

25. **Krichen, M.**; Ammi, M.; Mihoub, A.; Almutiq, M. Blockchain for Modern Applications: A Survey. Sensors 2022, 22, 5274.

26. Khan, H.; Nizami, I.F.; Qaisar, S.M.; Waqar, A.; **Krichen, M.**; Almaktoom, A.T. Analyzing Optimal Battery Sizing in Microgrids Based on the Feature Selection and Machine Learning Approaches. Energies 2022, 15, 7865.

27. Jatoi, G.M.; Das, B.; Karim, S.; Pabani, J.K.; **Krichen, M.**; Alroobaea, R.; Kumar, M. Floating Nodes Assisted Cluster-Based Routing for Efficient Data Collection in Underwater Acoustic Sensor Networks. Computer Communications 2022, 195, 137-147.

28. Jabbar, R.; Dhib, E.; ben Said, A.; **Krichen, M.**; Fetais, N.; Zaidan, E.; Barkaoui, K. Blockchain Technology for Intelligent Transportation Systems: A Systematic Literature Review. IEEE Access 2022.

29. Hrizi, O.; Gasmi, K.; Ben Ltaifa, I.; Alshammari, H.; Karamti, H.; **Krichen, M.**; Ben Ammar, L.; Mahmood, M.A. Tuberculosis Disease Diagnosis Based on an Optimized Machine Learning Model. Journal of Healthcare Engineering 2022, 2022.

30. Haq, M.Z.U.; Khan, M.Z.; Rehman, H.U.; Mehmood, G.; Binmahfoudh, A.; **Krichen, M.**; Alroobaea, R. An Adaptive Topology Management Scheme to Maintain Network Connectivity in Wireless Sensor Networks. Sensors 2022, 22, 2855.

31. Ellouze, M.; Mechti, S.; **Krichen, M.**; Ravi, V.; Belguith, L.H. A Deep Learning Approach for Detecting the Behaviour of People Having Personality Disorders towards COVID-19 from Twitter. International Journal of Computational Science and Engineering 2022, 25, 353-366.

32. Cedric, L.S.; Adoni, W.Y.H.; Aworka, R.; Zoueu, J.T.; Mutombo, F.K.; **Krichen, M.**; Kimpolo, C.L.M. Crops Yield Prediction Based on Machine Learning Models: Case of West African Countries. Smart Agricultural Technology 2022, 100049.

33. Boulouard, Z.; Ouaissa, M.; Ouaissa, M.; Siddiqui, F.; Almutiq, M.; **Krichen, M.** An Integrated Artificial Intelligence of Things Environment for River Flood Prevention. Sensors 2022, 22, 9485.

34. Boulouard, Z.; Ouaissa, M.; Ouaissa, M.; **Krichen, M.**; Almutiq, M.; Gasmi, K. Detecting Hateful and Offensive Speech in Arabic Social Media Using Transfer Learning. Applied Sciences 2022, 12, 12823.

35. Batra, S.; Sharma, H.; Boulila, W.; Arya, V.; Srivastava, P.; Khan, M.Z.; **Krichen, M.** An Intelligent Sensor Based Decision Support System for Diagnosing Pulmonary Ailment through Standardized Chest X-Ray Scans. Sensors 2022, 22, 7474.

36. Aworka, R.; Cedric, L.S.; Adoni, W.Y.H.; Zoueu, J.T.; Mutombo, F.K.; Kimpolo, C.L.M.; Nahhal, T.; **Krichen, M.** Agricultural Decision System Based on Advanced Machine Learning Models for Yield Prediction: Case of East African Countries. Smart Agricultural Technology 2022, 2, 100048.

37. Alshammari, H.; Gasmi, K.; **Krichen, M.**; Ammar, L.B.; Abdelhadi, M.O.; Boukrara, A.; Mahmood, M.A. Optimal Deep Learning Model for Olive Disease Diagnosis Based on an Adaptive Genetic Algorithm. Wireless Communications and Mobile Computing 2022, 2022.

38. Alshammari, H.; Gasmi, K.; Ben Ltaifa, I.; **Krichen, M.**; Ben Ammar, L.; Mahmood, M.A. Olive Disease Classification Based on Vision Transformer and CNN Models. Computational Intelligence and Neuroscience 2022, 2022.

39. Abu Al-Haija, Q.; **Krichen, M.**; Abu Elhaija, W. Machine-Learning-Based Darknet Traffic Detection System for IoT Applications. Electronics 2022, 11, 556.

40. Abu Al-Haija, Q.; **Krichen, M.** A Lightweight In-Vehicle Alcohol Detection Using Smart Sensing and Supervised Learning. Computers 2022, 11, 121.

41. Rafique, H.; Alroobaea, R.; Munawar, B.A.; **Krichen, M.**; Rubaiee, S.; Bashir, A.K. Do Digital Students Show an Inclination toward Continuous Use of Academic Library Applications? A Case Study. The Journal of Academic Librarianship 2021, 47, 102298.

42. Mukhtar, H.; Rubaiee, S.; **Krichen, M.**; Alroobaea, R. An IoT Framework for Screening of COVID-19 Using Real-Time Data from Wearable Sensors. International Journal of Environmental Research and Public Health 2021, 18, 4022.

43. Lahami, M.; **Krichen, M.** A Survey on Runtime Testing of Dynamically Adaptable and Distributed Systems. Software Quality Journal 2021, 29, 555-593.

44. **Krichen, M.**; Mechti, S.; Alroobaea, R.; Said, E.; Singh, P.; Khalaf, O.I.; Masud, M. A Formal Testing Model for Operating Room Control System Using Internet of Things. Computers, Materials & Continua 2021, 66, 2997-3011.

45. **Krichen, M.** Anomalies Detection through Smartphone Sensors: A Review. IEEE Sensors Journal 2021, 21, 7207-7217. **Krichen, M.**; Barkaoui, K.; Shinoy, M. 2021. Blockchain for The Internet of Vehicles: How to Use Blockchain to Secure Vehicle-to-Everything (V2X) Communication and Payment. IEEE Sensors Journal 2021, 21, 15807-15823.

46. Hasan, M.K.; Chuah, T.C.; El-Saleh, A.A.; Shafiq, M.; Shaikh, S.A.; Islam, S.; **Krichen, M.** Constriction Factor Particle Swarm Optimization Based Load Balancing and Cell Association for 5G Heterogeneous Networks. Computer Communications 2021, 180, 328-337.

47. Assayad, I.; Eljadiri, L.; **Krichen, M.**; Zakari, A.; Adoni, W.; Nahhal, T. A Novel Architecture Prototyping Framework With Generic Properties Verification for Sub-Architectures. Engineering Letters 2021, 29.

48. Arunachalam, A.; Ravi, V.; **Krichen, M.**; Alroobaea, R.; Rubaiee, S. Mathematical Model Validation of Search Protocols in MP2P Networks. Computers, Materials and Continua (CMC) 2021, 68, 1807-1829.

49. Arunachalam, A.; Ravi, V.; **Krichen, M.**; Alroobaea, R.; Alqurni, J.S. Analytical Comparison of Resource Search Algorithms in Non-DHT Mobile Peer-to-Peer Networks. Computers, Materials and Continua (CMC) 2021, 68, 983-1001.

50. Alyami, H.; Alosaimi, W.; **Krichen, M.**; Alroobaea, R. Monitoring Social Distancing Using Artificial Intelligence for Fighting COVID-19 Virus Spread. International Journal of Open Source Software and Processes (IJOSSP) 2021, 12, 48-63.

51. Abbas, A.; **Krichen, M.**; Alroobaea, R.; Malebary, S.; Tariq, U.; Jalil Piran, M. An Opportunistic Data Dissemination for Autonomous Vehicles Communication. Soft Computing 2021, 25, 11899-11912.

52. Abbas, A.; Alroobaea, R.; **Krichen, M.**; Rubaiee, S.; Vimal, S.; Almansour, F.M. Correction to: Blockchain-Assisted Secured Data Management Framework for Health Information Analysis Based on Internet of Medical Things. Personal and Ubiquitous Computing 2021, 1-1.

53. Abbas, A.; Alroobaea, R.; **Krichen, M.**; Rubaiee, S.; Vimal, S.; Almansour, F.M. Blockchain-Assisted Secured Data Management Framework for Health Information Analysis Based on Internet of Medical Things. Personal and Ubiquitous Computing 2021, 1-14.

54. Mechti, S.; Alroobaea, R.; **Krichen, M.**; Rubaiee, S.; Ahmed, A. Deep Learning Model for Identifying the Arabic Language Learners Based on Gated Recurrent Unit Network. International Journal of Advanced Computer Science and Applications 2020, 11.

55. Jabbar, R.; Kharbeche, M.; Al-Khalifa, K.; **Krichen, M.**; Barkaoui, K. Blockchain for the Internet of Vehicles: A Decentralized IoT Solution for Vehicles Communication Using Ethereum. Sensors 2020, 20, 3928.

56. Adoni, H.W.Y.; Nahhal, T.; **Krichen, M.**; Aghezzaf, B.; Elbyed, A. A Survey of Current Challenges in Partitioning and Processing of Graph-Structured Data in Parallel and Distributed Systems. Distributed and Parallel Databases 2020, 38, 495-530.

57. Lahami, M.; **Krichen, M.**; Alroobaea, R. TEPaaS: Test Execution Platform as-a-Service Applied in the Context of e-Health. International Journal of Autonomous and Adaptive Communications Systems 2019, 12, 264-283.

58. **Krichen, M.** Improving Formal Verification and Testing Techniques for Internet of Things and Smart Cities. Mobile networks and applications 2019, 1-12.

59. **Krichen, M.**; Maâlej, A.J.; Lahami, M. A Model-Based Approach to Combine Conformance and Load Tests: An EHealth Case Study. International Journal of Critical Computer-Based Systems 2018, 8, 282-310.

60. Lahami, M.; **Krichen, M.**; Jmaiel, M. Safe and Efficient Runtime Testing Framework Applied in Dynamic and Distributed Systems. Science of Computer Programming 2016, 122, 1-28.

61. Maâlej, A.J.; **Krichen, M.**; Jmael, M. A Comparative Evaluation of State-of-the-Art Load and Stress Testing Approaches. International Journal of Computer Applications in Technology 2015, 51, 283-293.

62. Maâlej, A.J.; **Krichen, M.** Study on the Limitations of WS-BPEL Compositions under Load Conditions. The Computer Journal 2015, 58, 385-402.

63. Lahami, M.; **Krichen, M.**; Jmael, M. Runtime Testing Approach of Structural Adaptations for Dynamic and Distributed Systems. International Journal of Computer Applications in Technology 2015, 51, 259-272.

64. Bertrand, N.; Stainer, A.; Jron, T.; **Krichen, M.** A Game Approach to Determinize Timed Automata. Formal Methods in System Design 2015, 46, 42-80.

65. **Krichen, M.** A Formal Framework for Black-Box Conformance Testing of Distributed Real-Time Systems. International Journal of Critical Computer-Based Systems 2012, 3, 26-43.

66. Bertrand, N.; Jron, T.; Stainer, A.; **Krichen, M.** Off-Line Test Selection with Test Purposes for Non-Deterministic Timed Automata. Logical Methods in Computer Science 2012, 8, 1-33.

Conference Papers and Book Chapters

1. Souai, W.; Mihoub, A.; Tarhouni, M.; Zidi, S.; **Krichen, M.**; Mahfoudhi, S. Predicting At-Risk Students Using the Deep Learning BLSTM Approach.; IEEE, 2022; pp. 32-37.

2. Sghaier, S.; **Krichen, M.**; Elfaki, A.O.; Abu Al-Haija, Q. Efficient Machine-Learning Based 3D Face Identification System Under Large Pose Variation.; Springer International Publishing Cham, 2022; pp. 273-285.

3. Mejbri, R.; Mihoub, A.; Cheikhrouhou, O.; Essalmi, F.; **Krichen, M.**; Abid, M.; Hamam, H. Assessment of Students Performance and E-Learning Experience Using Online Social Networks.; IEEE, 2022; pp. 26-31.

4. Lahami, M.; Maâlej, A.J.; **Krichen, M.**; Hammami, M.A. A Comprehensive Review of Testing Blockchain Oriented Software. ENASE 2022, 355-362.

5. **Krichen, M.**; Mihoub, A.; Alzahrani, M.Y.; Adoni, W.Y.H.; Nahhal, T. Are Formal Methods Applicable To Machine Learning And Artificial Intelligence?; IEEE, 2022; pp. 48-53.

6. **Krichen, M.**; Lahami, M.; Al-Haija, Q.A. Formal Methods for the Verification of Smart Contracts: A Review.; IEEE, 2022; pp. 01-08.

7. **Krichen, M.**; Adoni, W.Y.H.; Mihoub, A.; Alzahrani, M.Y.; Nahhal, T. Security Challenges for Drone Communications: Possible Threats, Attacks and Countermeasures.; IEEE, 2022; pp. 184-189.

8. Class-Peters, F.; Adoni, W.Y.H.; Nahhal, T.; Byed, A.E.; **Krichen, M.**; Kimpolo, C.; Kalala, F.M. Post-COVID-19: Deep Image Processing AI to Analyze Social Distancing in a Human Community. In Advances on Smart and Soft Computing; Springer, Singapore, 2022; pp. 59-68.

9. Boulila, W.; Driss, M.; Alshanqiti, E.; Al-Sarem, M.; Saeed, F.; **Krichen, M.**Weight Initialization Techniques for Deep Learning Algorithms in Remote Sensing: Recent Trends and Future Perspectives. Advances on Smart and Soft Computing 2022, 477-484.

10. Qaisar, S.M.; **Krichen, M.**; Mihoub, A. Hand Gesture Recognition Based on Shape Context Analysis.; IEEE, 2021; pp. 127-131.

11. Noureddine, D.B.; **Krichen, M.**; Mechti, S.; Nahhal, T.; Adoni, W.Y.H. An Agent-Based Architecture Using Deep Reinforcement Learning for the Intelligent Internet of Things Applications. In Advances on Smart and Soft Computing; Springer, Singapore, 2021; pp. 273-283.

12. Ganesan, S.; Ravi, V.; **Krichen, M.**; Sowmya, V.; Alroobaea, R.; Soman, K. Robust Malware Detection Using Residual Attention Network.; IEEE, 2021; pp. 1-6.

13. Fredj, O.B.; Cheikhrouhou, O.; **Krichen, M.**; Hamam, H.; Derhab, A. An OWASP Top Ten Driven Survey on Web Application Protection Methods.; Springer International Publishing, 2021; pp. 235-252.

14. Adoni, W.Y.H.; Tarik, N.; **Krichen, M.**; El Byed, A. Hgraph: Parallel and Distributed Tool for Large-Scale Graph Processing.; IEEE, 2021; pp. 115-120.

15. Srinivasan, S.; Ravi, V.; Sowmya, V.; **Krichen, M.**; Noureddine, D.B.; Anivilla, S.; Soman, K. Deep Convolutional Neural Network Based Image Spam Classification.; IEEE, 2020; pp. 112-117.

16. Qaisar, S.M.; **Krichen, M.**; Jallouli, F. Multirate Ecg Processing and K-Nearest Neighbor Classifier Based Efficient Arrhythmia Diagnosis.; Springer, Cham, 2020; pp. 329-337.

17. Ouchani, S.; **Krichen, M.**Ensuring the Correctness and Well Modeling of Intelligent Healthcare Management Systems.; Springer, Cham, 2020; pp. 364-372.

18. **Krichen, M.**; Alroobaea, R. Optimizing the Placement of Security Testing Components for Internet of Things Architectures. 2020.

19. Jabbar, R.; Shinoy, M.; Kharbeche, M.; Al-Khalifa, K.; **Krichen, M.**; Barkaoui, K. Driver Drowsiness Detection Model Using Convolutional Neural Networks Techniques for Android Application.; IEEE, 2020; pp. 237-242.

20. Jabbar, R.; **Krichen, M.**; Shinoy, M.; Kharbeche, M. Noora Fetais, and Kamel Barkaoui. A Model-Based and Resource-Aware Testing Framework for Parking System Payment Using Blockchain. In 2020 International Wireless Communications and Mobile Computing (IWCMC). 2020.

21. Jabbar, R.; **Krichen, M.**; Shinoy, M.; Kharbeche, M.; Fetais, N.; Barkaoui, K. A Model-Based and Resource-Aware Testing Framework for Parking System Payment Using Blockchain.; IEEE, 2020; pp. 1252-1259.

22. Jabbar, R.; **Krichen, M.**; Kharbeche, M.; Fetais, N.; Barkaoui, K. A Model-Based Testing Framework for Validating an IoT Solution for Blockchain-Based Vehicles Communication. 2020.

23. Jabbar, R.; **Krichen, M.**; Kharbeche, M.; Fetais, N.; Barkaoui, K. A Formal Model-Based Testing Framework for Validating an IoT Solution for Blockchain-Based Vehicles Communication.; SCITEPRESS-Science and Technology Publications, 2020; pp. 595-602.

24. Jabbar, R.; **Krichen, M.**; Fetais, N.; Barkaoui, K. Formal Verification and Model-Based Testing Techniques for Validating a Blockchain-Based Healthcare Records Sharing System. 2020.

25. Jabbar, R.; **Krichen, M.**; Fetais, N.; Barkaoui, K. Adopting Formal Verification and Model-Based Testing Techniques for Validating a Blockchain-Based Healthcare Records Sharing System.; SCITEPRESS-Science and Technology Publications, 2020; pp. 261-268.

26. Jabbar, R.; Fetais, N.; **Krichen, M.**; Barkaoui, K. Blockchain Technology for Healthcare: Enhancing Shared Electronic Health Record Interoperability and Integrity.; IEEE, 2020; pp. 310-317.

27. Ben Fredj, O.; Mihoub, A.; **Krichen, M.**; Cheikhrouhou, O.; Derhab, A. CyberSecurity Attack Prediction: A Deep Learning Approach.; 2020; pp. 1-6.

28. Alroobaea, R.; Almulihi, A.H.; Alharithi, F.S.; Mechti, S.; **Krichen, M.**; Belguith, L.H. A Deep Learning Model to Predict Gender, Age and Occupation of the Celebrities Based on Tweets Followers.; 2020.

29. Adoni, W.Y.H.; **Krichen, M.**; Nahhal, T.; Elbyed, A. Multi-Path Coverage of All Final States for Model-Based Testing Theory Using Spark In-Memory Design.; Springer, Cham, 2020; pp. 195-204.

30. **Krichen, M.**; Alroobaea, R.; Lahami, M. Towards a Runtime Standard-Based Testing Framework for Dynamic Distributed Information Systems.; 2019; Vol. 1.

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67. **Krichen, M.**; Tripakis, S. Black-Box Conformance Testing for Real-Time Systems.; Springer, Berlin, Heidelberg, 2004; pp. 109-126.

Participation to Projects

- COVID-19 Research Project: Using Artificial Intelligence for Monitoring Social Distancing as Part of the Fight against the Spread of COVID-19 Virus-Taif University

  Period: June 2020-January 2021

- Erasmus Plus International Credit Mobility: Mutual Visits between the University of Sfax (Tunisia) and the University of Namur (Belgium)

  Period : August 2019-July 2022

- DGRSRT/INRIA : Model Based Validation of Wireless Sensor Networks

  Period : January 2009-December 2009

- MARAE : Robust Method and Architecture for Autonomy in Space

  Period : 2008-2010

- AMAES : Advanced Methods for Autonomous Embedded Systems

  Period : 2006-2008

- ARTIST : Network of Excellence on Embedded System Design

  Period : 2006-2008

- CORTOS : Control and Observation of Real-Time Open Systems

  Period : 2003-2005

Participation to Seminars (and other activities)

- 16th International Colloquium on Theoretical Aspects of Computing-ICTAC 2019

  October 31 - November 4, 2019, Hammamet, Tunisia

- Organisation and Participation to the First Tunisian Diaspora Forum-TDF 2019

  August 8, 2019, Sfax, Tunisia

- A Series of Talks about Deep Learning given by a Group of Academic and Insdustrial Experts-IndabaX Sfax 2019

  June 29, 2019, Sfax, Tunisia

- Al Baha University-Uppsala University Collaborative Symposium on Quality in Computing Education-ABU3QCE

  February 24-25, 2015, Albaha, Saudi Arabia

- Workshop on Methods for Distributed Adaptive Software-METHODICA 2012

  April 22-24, 2012, Kerkennah Islands, Tunisia

- International Conference On Principles Of Distributed Systems-OPODIS 2010

  December 14-17, 2010, Tozeur, Tunisia

- □ International Conference on Risks and Security of Internet and Systems-CRISIS 2008
  October 28-30, 2008, Tozeur, Tunisia
- □ Doctoral Consortium at ACSD & ATPN 2006
  June 26-30, 2006, Turku, Finland
- □ Final Ametist Project Workshop
  June 13-15, 2005, Cassis, France
- □ 17th International School for Computer Science Researchers
  Formal Methods: Theory And Practices
  July 10-23, 2005, Lipari, Italy
- □ School for Young Researchers in Symbolic Computation and Algorithmic-EJCACF 2005
  April 4-8, 2005, Montpellier, France
- □ Modelling and Verifying Parallel Processes-MOVEP 2004
  December 13-17, 2004, , Brussels, Belgium
- □ School for Young Researchers in Symbolic Computation and Algorithmic-EJCACF 2004
  29 mars-2 avril 2004, Grenoble, France
- □ Model-based Testing of Reactive Systems-MOTRES 2004
  January 12-15, 2004, Dagstuhl, Germany
- □ Testing of software systems: automate to better validate
  October 15-16, 2003, CNAM-CMSL, Paris, France
- □ Summer School on Formal Models for Software
  September 1-6, 2003, Tunisia Polytechnic School, la Marsa, Tunisie
- □ Study trip to England
  March 17-31, 2002, Organized by Tunisia Polytechnic School

PC Member

- □ 33rd IFIP International Conference on Testing Software and Systems-ICTSS 2021
  November 10-11, 2021, Virtual Conference
- □ 19th International Conference on Formal Modeling and Analysis of Timed Systems-FORMATS 2021
  Augsut 23-28, 2021, Virtual Conference
- □ 14th International Conference on Verification and Evaluation of Computer and Communication Systems-VECOS 2020
  September 22-25, 2020 , Virtual Conference

- 1st International Conference of Smart Systems and Emerging Technologies-SMARTTECH 2020
  November 3-5, 2020 , Riyadh, Saudi Arabia
- 11th International Conference on Advances in System Testing and Validation Lifecycle-VALID 2019
  November 24-28, 2018, Valencia, Spain
- 1st IEEE International Conference on Design & Test of Integrated Micro & Nano-Systems -DTS 2019
  April 28-May 1, 2019, Gammarth, Tunisia
- 13th International Conference on Verification and Evaluation of Computer and Communication Systems-VECOS 2019
  October 7-9, 2019, Porto, Portugal
- 10th International Conference on Advances in System Testing and Validation Lifecycle-VALID 2018
  October 14-18, 2018, Nice, France
- 30th IFIP International Conference on Testing Software and Systems-ICTSS 2018
  October 1-3, 2018, Cádiz, Spain
- 27th IFIP International Conference on Testing Software and Systems-ICTSS 2015
  November 23-25, 2015, Dubai, UAE
- 12th workshop on Methods for the Adaptive Distributed Software-METHODICA 2015
  April 16-17, 2015, Hammamet-Tunisia
- 1st International Symposium on Ubiquitous Networking-UNet 2015
  September 8-10, 2015, Casablanca, Morocco
- 26th IFIP International Conference on Testing Software and Systems-ICTSS 2014
  September 23-25, 2014, Madrid, Spain
- 25th IFIP International Conference on Testing Software and Systems-ICTSS 2013
  November 13-15, 2013, Istanbul, Turkey
- 8th Workshop on Methods for Distributed Adaptive Software-METHODICA 2012
  April 22-24, 2012, Kerkennah Islands, Tunisia
- 3rd International Workshop on Verification and Evaluation of Computer and Communication Systems-VECOS 2009
  July 2-3, 2009, Rabat, Morocco
- 4th Workshop on Methods for Distributed Adaptive Software-METHODICA 2009
  March 21-24, 2009, Mahdia, Tunisia

Refereeing

- 2021: The Journal of Systems & Software (Elsevier), ICTSS'21, VECOS'21

- □ 2020: MDPI Sensors Journal, IEEE Transactions on Computational Social Systems
- □ 2019: Computer Journal, ICTSS'19, VECOS'19, VALID'19, DTS'19, SMART'19
- □ 2018: Transactions on CCI, Journal of Systems and Software
- □ 2017: MFCS'17, Journal IJCCBS
- □ 2016: Computer Journal
- □ 2015: SERA 2015
- □ 2014: Journal STVR
- □ 2013: Journal DIST, Journal STVR, CAL'2013
- □ 2012: Transactions on Computers
- □ 2011: Transactions on Computers, Journal TSI, Journal JLAP, IEEE Software, Journal DISC, HLDVT'11, FORTE'11, SECTEST'11
- □ 2010: OPODIS'10, ICCES'10, MDV'2010, NOTERE'10
- □ 2009: VECoS'09, NOTERE'09
- □ 2008: VECOS'08, CDC'08, AICCSA'08
- □ 2007: FORMATS'07, VECOS'07
- □ 2006: AMAST'06
- □ 2005: ICTAC'05, TACAS'05, CAV'05
- □ 2004: ICTAC'04, MOTRES'04

Ph.D. Students

- □ Rateb Jabbar *J*uly 2021

  Automatic Learning for the Improvement of Advanced Driver Assistance Systems

- □ Wilfried Yves Hamilton Adoni *D*ecember 2020

  A Distributed Algorithm for Large-Scale Graph Partitioning and Analyzing

- □ Mariam LAHAMI *A*pril 2017

  A New Framework for Testing Adaptable and Distributed Real-Time Systems

- □ Afef JMAL *N*ovember 2016

  Conformance Testing for Web Service Compositions under Extreme Load Conditions