

Academic Resume



Khalid Alsubhi

Associate Professor, Computer Science Department

Contact Information.

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Highest Degree.

2016, PhD, Computer Science, University of Waterloo, Canada.

Academic and Professional Experiences.

1. **2020 - Present**
Associate Professor, Faculty of Computing and Information Technology King Abdulaziz University., , .
2. **2016 - 2020**
Assistant Professor, Faculty of Computing and Information Technology King Abdulaziz University., , .
3. **2009 - 2016**
Teaching Assistant, Faculty of Computing and Information Technology King Abdulaziz University., , .
4. **2004 - 2005**
Network Administrator, Information Technology Department Saudi Arabian Airlines, , .

Research Interests.

Information and Network Security, Security of Big Data, IoT, and IoV, Software Defined Networking and Network Function Virtualization.

Teaching Interests.

Cryptography, Programming, CyberSecurity, Network Security.

Certifications and Trainings.

1. Course Articulation & Assessment Workshop, Faculty of Computing and Information Technology, King AbdulAziz University.
2. Diploma of Professional Development in Teaching and Learning, Center for Teaching & Learning Development, King AbdulAziz University.
3. Workshop for consultant preparation for public and private sectors, Faculty of Computing and Information Technology with Research and Consulting Institute.
4. Diploma Oracle Complete.

Social, Scientific and Professional Affiliation.

1. -, Assistant Professor, Faculty of Computing and Information Technology King Abdulaziz University.

Publications.

1. Azeem Irshad, Bander A. Alzahrani, Aiiad Albeshri, Khalid Alsubhi, Anand Nayyar, Shehzad Ashraf Chaudhry, "Spake-Dc: A Secure Puf Enabled Authenticated Key Exchange For 5g-Based Drone Communications", Ieee Transactions On Vehicular Technology, pp. 1-11, 2024.
DOI: [10.1109/TVT.2023.3333398](https://doi.org/10.1109/TVT.2023.3333398)
2. Khalid Alsubhi, "Towards An Iot Based Secured Framework For Smart Cities", Journal Of Autonomous Intelligence, vol: 7, 2024.
DOI: [10.32629/jai.v7i3.1460](https://doi.org/10.32629/jai.v7i3.1460)
3. Khalid Alsubhi, "A Secured Intrusion Detection System For Mobile Edge Computing", Applied Sciences, vol: 14, pp. 1432, 2024.
DOI: [10.3390/app14041432](https://doi.org/10.3390/app14041432)
4. Khalid Alsubhi, "Hbfzpk: A Dual Privacy Protection Model Location Based Service Systems", Journal Of Theoretical And Applied Information Technology, 2023.
5. Rajesh Singh, Anita Gehlot, Ritika Saxena, Khalid Alsubhi, Divya Anand, Irene Delgado Noya, Shaik Vaseem Akram, Sushabhan Choudhury, "Stress Detector Supported Galvanic Skin Response System With Iot And Labview Gui", Computers, Materials & Continua, vol: 74, pp. 1217-1233, 2023.
DOI: [10.32604/cmc.2023.023894](https://doi.org/10.32604/cmc.2023.023894)
6. Muhammad Akram, Muhammad Waseem Iqbal, M. Usman Ashraf, Erssa Arif, Khalid Alsubhi, Hani Moaiteq Aljahdali, "Optimization Of Interactive Videos Empowered The Experience Of Learning Management System", Computer Systems Science And Engineering, vol: 46, pp. 1021-1038, 2023.
DOI: [10.32604/csse.2023.034085](https://doi.org/10.32604/csse.2023.034085)
7. Muhammad Raza Naqvi, Muhammad Waseem Iqbal, Syed Khuram Shahzad, M. Usman Ashraf, Khalid Alsubhi, Hani Moaiteq Aljahdali, "Ontological Model For Cohesive Smart Health Services Management", Computers, Materials & Continua, vol: 74, pp. 3679-3695, 2023.
DOI: [10.32604/cmc.2023.030340](https://doi.org/10.32604/cmc.2023.030340)
8. Muhammad Tanveer, Muhammad Nasir Mumtaz Bhutta, Bander A. Alzahrani, Aiiad Albeshri, Khalid Alsubhi, Shehzad Ashraf Chaudhry, "Cmap-Iot: Chaotic Map-Based Authentication Protocol For Crowdsourcing Internet Of Things", Arabian Journal For Science And Engineering, 2023.
DOI: [10.1007/s13369-023-08047-6](https://doi.org/10.1007/s13369-023-08047-6)
9. Jadil Alsamiri, Khalid Alsubhi, "Federated Learning For Intrusion Detection Systems In Internet Of Vehicles: A General Taxonomy, Applications, And Future Directions", Future Internet, vol: 15, pp. 403, 2023.
DOI: [10.3390/fi15120403](https://doi.org/10.3390/fi15120403)
10. Sajid Hussain, Muhammad Farooq, Bander A. Alzahrani, Aiiad Albeshri, Khalid Alsubhi, Shehzad Ashraf Chaudhry, "An Efficient And Reliable User Access Protocol For Internet Of Drones", Ieee Access, vol: 11, pp. 59688-59700, 2023.
DOI: [10.1109/ACCESS.2023.3284832](https://doi.org/10.1109/ACCESS.2023.3284832)
11. Muhammad Tanveer, Ali Kashif Bashir, Bander A. Alzahrani, Aiiad Albeshri, Khalid Alsubhi, Shehzad Ashraf Chaudhry, "Cadf-Cse: Chaotic Map-Based Authenticated Data Access/Sharing Framework For Iot-Enabled Cloud Storage Environment", Physical Communication, vol: 59, pp. 102087, 2023.
DOI: [10.1016/j.phycom.2023.102087](https://doi.org/10.1016/j.phycom.2023.102087)
12. Khlood Shinan, Khalid Alsubhi, M. Usman Ashraf, "Botsward: Centrality Measures For Graph-Based Bot Detection Using Machine Learning", Computers, Materials & Continua, vol: 74, pp. 693-714, 2023.
DOI: [10.32604/cmc.2023.031641](https://doi.org/10.32604/cmc.2023.031641)

Publications.

13. Nitin Goyal, Mamta Nain, Aman Singh, Khalid Abualsaud, Khalid Alsubhi, Arturo Ortega-Mansilla, Nizar Zorba, "An Anchor-Based Localization In Underwater Wireless Sensor Networks For Industrial Oil Pipeline Monitoring", Ieee Canadian Journal Of Electrical And Computer Engineering, vol: 45, pp. 466-474, 2022.
DOI: [10.1109/ICJECE.2022.3206275](https://doi.org/10.1109/ICJECE.2022.3206275)
14. Bander Alzahrani, Nikos Fotiou, Aiiad Albeshri, Abdullah Almuhaimeed, Khalid Alsubhi, "Distributed Access Control For Information-Centric Networking Architectures Using Verifiable Credentials", International Journal Of Information Security, vol: 22, pp. 467-478, 2022.
DOI: [10.1007/s10207-022-00649-9](https://doi.org/10.1007/s10207-022-00649-9)
15. Khuram Nawaz Khayam, Zahid Mehmood, Hassan Nazeer Chaudhry, Muhammad Usman Ashraf, Usman Tariq, Mohammed Nawaf Altouri, Khalid Alsubhi, "Local-Tetra-Patterns For Face Recognition Encoded On Spatial Pyramid Matching", Computers, Materials & Continua, vol: 70, pp. 5039-5058, 2022.
DOI: [10.32604/cmc.2022.019975](https://doi.org/10.32604/cmc.2022.019975)
16. Muhammad Akram, Muhammad Waseem Iqbal, Syed Ashraf Ali, Muhammad Usman Ashraf, Khalid Alsubhi, Hani Moaiteq Aljahdali, "Triple Key Security Algorithm Against Single Key Attack On Multiple Rounds", Computers, Materials & Continua, vol: 72, pp. 6061-6077, 2022.
DOI: [10.32604/cmc.2022.028272](https://doi.org/10.32604/cmc.2022.028272)
17. Osman Salem, Khalid Alsubhi, Aymen Shaafi, Mostafa Gheryani, Ahmed Mehaoua, Raouf Boutaba, "Man-In-The-Middle Attack Mitigation In Internet Of Medical Things", Ieee Transactions On Industrial Informatics, vol: 18, pp. 2053-2062, 2022.
DOI: [10.1109/TII.2021.3089462](https://doi.org/10.1109/TII.2021.3089462)
18. Divya Anand, Aman Singh, Khalid Alsubhi, Nitin Goyal, Atef Abdrabou, Ankit Vidyarthi, Joel J. P. C. Rodrigues, "A Smart Cloud And Iovt-Based Kernel Adaptive Filtering Framework For Parking Prediction", Ieee Transactions On Intelligent Transportation Systems, pp. 1-9, 2022.
DOI: [10.1109/TITS.2022.3204352](https://doi.org/10.1109/TITS.2022.3204352)
19. Madiha Bukhsh, Muhammad Saqib Ali, Muhammad Usman Ashraf, Khalid Alsubhi, Weiqiu Chen, "An Interpretation Of Long Short-Term Memory Recurrent Neural Network For Approximating Roots Of Polynomials", Ieee Access, vol: 10, pp. 28194-28205, 2022.
DOI: [10.1109/ACCESS.2022.3157306](https://doi.org/10.1109/ACCESS.2022.3157306)
20. Khalid Alsubhi, Bander Alzahrani, Nikos Fotiou, Aiiad Albeshri, Mohammed Alreshoodi, "Reliable Application Layer Routing Using Decentralized Identifiers", Future Internet, vol: 14, pp. 322, 2022.
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21. Anita Gehlot, Rajesh Singh, Sweeti Siwach, Shaik Vaseem Akram, Khalid Alsubhi, Aman Singh, Irene Delgado Noya, Sushabhan Choudhury, "Real Time Monitoring Of Muscle Fatigue With Iot And Wearable Devices", Computers, Materials & Continua, vol: 72, pp. 999-1015, 2022.
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22. Hina Tufail, M. Usman Ashraf, Khalid Alsubhi, Hani Moaiteq Aljahdali, "The Effect Of Fake Reviews On E-Commerce During And After Covid-19 Pandemic: Skl-Based Fake Reviews Detection", Ieee Access, vol: 10, pp. 25555-25564, 2022.
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23. Fatmah Alanazi, Kamal Jambi, Fathy Eassa, Maher Khemakhem, Abdullah Basuhail, Khalid Alsubhi, "Ensemble Deep Learning Models For Mitigating Ddos Attack In Software-Defined Network", Intelligent Automation & Soft Computing, vol: 33, pp. 923-938, 2022.
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24. Anita Gehlot, Rajesh Singh, Piyush Kuchhal, Adesh Kumar, Aman Singh, Khalid Alsubhi, Muhammad Ibrahim, Santos Gracia Villar, Jose Brenosa, "Wpan And Iot Enabled Automation To Authenticate Ignition Of Vehicle In Perspective Of Smart Cities", *Sensors*, vol: 21, pp. 7031, 2021.
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25. Yubin Lin, Chenbing Cheng, Fen Xiao, Khalid Alsubhi, Hani Moaiteq Abdullah Aljahdali, "A Dag-Based Cloud-Fog Layer Architecture For Distributed Energy Management In Smart Power Grids In The Presence Of Phevs", *Sustainable Cities And Society*, vol: 75, pp. 103335, 2021.
DOI: [10.1016/j.scs.2021.103335](https://doi.org/10.1016/j.scs.2021.103335)
26. Salah T. Alshammari, Khalid Alsubhi, Hani Moaiteq Abdullah Aljahdali, Ahmed Mohammed Alghamdi, "Trust Management Systems In Cloud Services Environment: Taxonomy Of Reputation Attacks And Defense Mechanisms", *Ieee Access*, vol: 9, pp. 161488-161506, 2021.
DOI: [10.1109/ACCESS.2021.3132580](https://doi.org/10.1109/ACCESS.2021.3132580)
27. Salah T. Alshammari, Aiiad Albeshri, Khalid Alsubhi, "Building A Trust Model System To Avoid Cloud Services Reputation Attacks", *Egyptian Informatics Journal*, vol: 22, pp. 493-503, 2021.
DOI: [10.1016/j.eij.2021.04.001](https://doi.org/10.1016/j.eij.2021.04.001)
28. Tehmina Hafeez, Sanay Muhammad Umar Saeed, Aamir Arsalan, Syed Muhammad Anwar, Muhammad Usman Ashraf, Khalid Alsubhi, Alberto Fernandez-Hilario, "Eeg In Game User Analysis: A Framework For Expertise Classification During Gameplay", *Plos One*, vol: 16, pp. e0246913, 2021.
DOI: [10.1371/journal.pone.0246913](https://doi.org/10.1371/journal.pone.0246913)
29. Salah T. Alshammari, Khalid Alsubhi, "Building A Reputation Attack Detector For Effective Trust Evaluation In A Cloud Services Environment", *Applied Sciences*, vol: 11, pp. 8496, 2021.
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30. Khlood Shinan, Khalid Alsubhi, Ahmed Alzahrani, Muhammad Usman Ashraf, "Machine Learning-Based Botnet Detection In Software-Defined Network: A Systematic Review", *Symmetry*, vol: 13, pp. 866, 2021.
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31. Sultan Algarni, Fathy Eassa, Khalid Almarhabi, Abdulllah Almalaise, Emad Albassam, Khalid Alsubhi, Mohammad Yamin, "Blockchain-Based Secured Access Control In An Iot System", *Applied Sciences*, vol: 11, pp. 1772, 2021.
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32. Aiguo Han, Xiaoping Chen, Zailiang Li, Khalid Alsubhi, Arda Yunianta, "Advanced Learning-Based Energy Policy And Management Of Dispatchable Units In Smart Grids Considering Uncertainty Effects", *International Journal Of Electrical Power & Energy Systems*, vol: 132, pp. 107188, 2021.
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33. Afnan Alharbi, Khalid Alsubhi, "Botnet Detection Approach Using Graph-Based Machine Learning", *Ieee Access*, vol: 9, pp. 99166-99180, 2021.
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34. Salah T. Alshammari, Aiiad Albeshri, Khalid Alsubhi, "Integrating A High-Reliability Multicriteria Trust Evaluation Model With Task Role-Based Access Control For Cloud Services", *Symmetry*, vol: 13, pp. 492, 2021.
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35. Bander A. Alzahrani, Azeem Irshad, Aiiad Albeshri, Khalid Alsubhi, Muhammad Shafiq, "An Improved Lightweight Authentication Protocol For Wireless Body Area Networks", *Ieee Access*, vol: 8, pp. 190855-190872, 2020.
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36. Khalid Alsubhi, Hani Moaiteq, "Intrusion Detection And Prevention Systems As A Service In Cloud-Based Environment", *International Journal Of Advanced Computer Science And Applications*, vol: 9, 2018.
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Publications.

37. Khalid Alsubhi, Fawaz Alsolami, Abdullah Algarni, Kamal Jambi, Fathy Eassa, Maher Khemakhem, "An Architecture For Translating Sequential Code To Parallel", The 2nd International Conference, pp. 88-92, 2018.
DOI: [10.1145/3206098.3206104](https://doi.org/10.1145/3206098.3206104)
38. Abdullah Algarni, Fawaz Alsolami, Fathy Eassa, Khalid Alsubhi, Kamal Jambi, Maher Khemakhem, "An Open Tool Architecture For Security Testing Of Nosql-Based Applications", 2017 Ieee/Acs 14th International Conference On Computer Systems And Applications (Aiccsa), pp. 220-225, 2017.
DOI: [10.1109/AICCSA.2017.44](https://doi.org/10.1109/AICCSA.2017.44)
39. Milad Ghaznavi, Aimal Khan, Nashid Shahriar, Khalid Alsubhi, Reaz Ahmed, Raouf Boutaba, "Elastic Virtual Network Function Placement", 2015 Ieee 4th International Conference On Cloud Networking (Cloudnet), pp. 255-260, 2015.
DOI: [10.1109/CloudNet.2015.7335318](https://doi.org/10.1109/CloudNet.2015.7335318)
40. Khalid Alsubhi, Mohamed Faten Zhani, Raouf Boutaba, "Embedded Markov Process Based Model For Performance Analysis Of Intrusion Detection And Prevention Systems", Globecom 2012 - 2012 Ieee Global Communications Conference, pp. 898-903, 2012.
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41. K. Alsubhi, Y. Alhazmi, N. Bouabdallah, R. Boutaba, "Security Configuration Management In Intrusion Detection And Prevention Systems", International Journal Of Security And Networks, vol: 7, pp. 30, 2012.
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42. Khalid Alsubhi, Issam Aib, Raouf Boutaba, "Fuzmet: A Fuzzy-Logic Based Alert Prioritization Engine For Intrusion Detection Systems", International Journal Of Network Management, vol: 22, pp. 263-284, 2011.
DOI: [10.1002/nem.804](https://doi.org/10.1002/nem.804)
43. K. Alsubhi, Y. Alhazmi, N. Bouabdallah, R. Boutaba, "Rule Mode Selection In Intrusion Detection And Prevention Systems", 2011 Ieee Global Communications Conference (Globecom 2011), pp. 1-6, 2011.
DOI: [10.1109/GLOCOM.2011.6134252](https://doi.org/10.1109/GLOCOM.2011.6134252)
44. Khalid Alsubhi, Nizar Bouabdallah, Raouf Boutaba, "Performance Analysis In Intrusion Detection And Prevention Systems", 2011 Ifip/Ieee International Symposium On Integrated Network Management (Im 2011), pp. 369-376, 2011.
DOI: [10.1109/INM.2011.5990713](https://doi.org/10.1109/INM.2011.5990713)
45. K. Alsubhi, I. Aib, J. Francois, R. Boutaba, "Policy-Based Security Configuration Management, Application To Intrusion Detection And Prevention", Icc 2009 - 2009 Ieee International Conference On Communications, pp. 1-6, 2009.
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46. Khalid Alsubhi, Ehab Al-Shaer, Raouf Boutaba, "Alert Prioritization In Intrusion Detection Systems", Noms 2008 - 2008 Ieee Network Operations And Management Symposium, pp. 33-40, 2008.
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