

Academic Resume



Salma Elhag

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Contact Information.

Building 61, Room 185, Add. King Abdulaziz University, Faculty of Computing and Information Technology,
smomar@kau.edu.sa.

Highest Degree.

2014, Phd In Computer Science, Automatic knowledge base of Intrusion detection using hybrid intelligent systems, University of khartum, Sudan.

Academic and Professional Experiences.

1. **2021 - 2023**
M.Sc. Supervisor : Depression Detection In Arabic Using Speech Language Recognition, , .
2. **2020 - 2022**
M.Sc. Supervisor : Enhancing Customer Relationship Management Using Association Rule Mining and the Evolutionary Algorithm, , .
3. **2020 - 2021**
B.Sc. Graduation Project Supervisor : TULIPS Website, , .
4. **2020 - 2021**
B.Sc. Graduation Project Supervisor : Maak: Mobile app for teenagers to have a better lifestyle with the help of life coaches, King Abdulaziz University, King Abdulaziz University.
5. **2019 - Present**
Associate Professor ,Information System Department ,Faculty of Computing And Information Systems, King Abdulaziz University., Jeddah, King Abdul-Aziz University.
6. **2019 - 2020**
.Sc. Graduation Project Supervisor : Anatomy World: An Augmented Reality Mobile Application to Teach Anatomy to Schools, , .
7. **2017 - 2019**
M.Sc Supervisor : Computer-Aided Systematic Business Process Management : Case Study of PG Program, , .
8. **2017 - 2018**
B.Sc. Graduation Project Supervisor : E-Autism Mate -Mobile Application-, , .

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Academic and Professional Experiences.

9. **2016 - 2017**
B.Sc. Graduation Project Supervisor : Building Map Application for the Al-Yasmeen Mall, , .
10. **2015 - 2016**
B.Sc. Graduation Project Supervisor : Masajid Mobile Application, , .
11. **2014 - 2019**
Assistant Professor, Jeddah, King Abdul-Aziz University.
12. **2011 - 2014**
lecturer, Faculty of Computing And Information Systems, King Abdulaziz University.
13. **2006 - 2013**
Lecturer, Faculty of Mathematical Sciences, University of Khartoum.
14. **2004 - 2006**
Programmer, Kartoum / Sudan, Diamond Company for Computer and Communication..
15. **2003 - 2006**
Teaching Assistant, Faculty of Mathematical Sciences, University of Khartoum.

Research Interests.

Machine learning, Network Security, Artificial Intelligence, Cyber Security, Text Mining, Natural Language Processing.

Teaching Interests.

Information Security, Enterprise Modeling, Data Mining, Operating Systems, Data Bases, Network Security, Application Development, Decision Support Systems, Information Systems Strategies and Policies, Cyber Security, Business Process Management, Software Quality And Testing, Total Quality Management.

Certifications and Trainings.

1. Digital Libraries and Online Resources Workshop,(Khartoum from 4-8 January 2004)..
2. Certificate for attending a Workshop in using MOODLE open source software ,(Khartoum 2005)..
3. Certificate for attending a course in Introduction to Linux ,(Khartoum 2\12-27/12 2006)..
4. Certificate for attending a course in Java and Web Applications , (Khartoum 1/1 -13/1 2007)..
5. certificate in networks from University of Damascus, Department of System & Information (training in 15/7 to 15/82001)..
6. Certificate in maintenance from University of Damascus, Department of System & Information.
7. BCS certificate Artificial Intelligence.
8. Apple Certified Trainer.
9. ITE_IT Essentials_INSTRUCTOR_Cisco Network Academy-certificate.
10. Instructor level credential for completing CCNAv7: Switching, Routing, and Wireless Essentials-Cisco Networking Academy.
11. Cyber Ops Associate - Cisco.
12. BCS Membership.

Social, Scientific and Professional Affiliation.

1. -, Ph.d, Khartoum University.
2. 2009-Present, Member, King Abdul-Aziz University.
3. 2003-2013, Member, Khartoum University.

Funded Projects.

1. 2021, Deep Learning Approaches for Detecting COVID-19 From Chest X-Ray Images: A Survey, This

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Publications.

1. Shahad Albugami, Sara Alqaidi, Waad Alzahrani, Kholod Alzubidi & Salma Elhag, "Improving Airline Services Quality By Dmaic Methodology", Worlds4 2023. Lecture Notes In Networks And Systems, Vol 803, 2024.
2. Salma Elhag , Rehab Salah, "Behavioral Biometrics - A Case Study Of Digital Banking Security In Saudi Arabia", Iccs2023&Nbsp;&Nbsp;International Conference On Cyber Security, Privacy In Communication Networks, 2024.
3. Yasmin Alamoudi, Hind Alasmari, Ghadeer Alamoudi, Nouf Alghamdi and Salma Elhag, "Proposal Of Blockchain Integration For Streamlined Logistics : A Six Sigma Approach In Saudi Post And Logistics Company", 7th World Conference On Smart Trends In Systems, Security, And Sustainability (Worlds4 2023) Was Held On August 21 - 24, 2023, In London, Uk, 2024.
4. Lama Ahmed Marta, Salma Mahjoub Omar, Hanaa Mohammed Namnakani, "A Fuzzy Logic Model For Fmcg Sector Towards Predicting The Optimal Forecasting Capacity In The Supply Chain: Case Study", 2023 Ieee Asia-Pacific Conference On Computer Science And Data Engineering (Csde), pp. 1-6, 2023.
DOI: [10.1109/CSDE59766.2023.10487663](https://doi.org/10.1109/CSDE59766.2023.10487663)
5. Salma M. Elhag, Ghadi H. Shaheen, Fatmah H. Alahmadi, "Accident Response Time Enhancement Using Drones: A Case Study In Najm For Insurance Services", International Journal Of Information Technology And Computer Science (Ijits), 2023.
6. Amjad Alsulami, Farah Albishri, Kholod Alzubidi, Lama Almehemadi, Salma Elhag, "Qr Technology To Automate Health Condition Detection Payment System: A Case Study In Schools Of The Kingdom Of Saudi Arabia", Waset.Org, 2023.
7. Shahad Albugami, Kholod Alzubidi, Waad Alzahrani, Sara Alqaidi and Salma Elhag, "Improving Airline Services Quality By Dmaic Methodology", 7th World Conference On Smart Trends In Systems, Security And Sustainability (Worlds4 2023), 2023.
8. Farah Ali Albishri, Amjad Ghazai Alsulami, Rezan Almehmadi, Samar Alahamdi, Jawharah Albarakati and Salma Elhag, "Six Sigma Dmaic To Improve The Quality Of Food Service: Kau Case Study", 7th World Conference On Smart Trends In Systems, Security And Sustainability (Worlds4 2023), 2023.
9. Ghadi Shaheen, Fatmah Alahmadi, Waad Alsuraihi, Abrar Alsayed and Salma Elhag, "The Impact Of Six Sigma On Madrasati Platform In Saudi Arabia", International Journal Of Current Engineering And Technology, 2023.
10. Waad Alzahrani, Sara Alqaidi, Samar Alahmadi, Shahad Albugami, Waad Alsuraihi and Salma Elhag, "Assistive Technology To Maximize Learning Opportunities For People With Disabilities", International Journal Of Computer Applications, 2023.
11. Shada Almarghalani, Arwa Alqahtani, Shahad Alzahrani, Haya Alqahtani, Salma Elhag, "Transforming The Academic System Into A Trimester System In Higher Education: Case Study At Kau", Journal Of Operations And Strategic Planning, pp. 2516600X2211386, 2023.
DOI: [10.1177/2516600X221138646](https://doi.org/10.1177/2516600X221138646)
12. Salma Elhag, Amal Mahmoud Alghamdi, Norah Ahmad Al-Shomrani, "Elhag, S., Alghamdi, A.M. And Al-Shomrani, N.A., 2023. Toward An Improved Security Performance Of Industrial Internet Of Things Systems. Sn Computer Science, 4(2), Pp.1-16. Doi : 10.1007/S42979-022-01566-3", Sn Computer Science, vol: 4, 2023.
DOI: [10.1007/s42979-022-01566-3](https://doi.org/10.1007/s42979-022-01566-3)
13. Marta A. Lama , Basouki S. Mawaddah , Sairafi O. Mawadh , Salma Elhag, "Automating Visitors Entrance To The Holy Mosques During Covid-19 Pandemic: Using Infrared Detection And Qr Technology", In The 21th Scientific Forum On Research In Hajj, Umrah And Visits, 2022.

Publications.

14. Arwa Faisal Alqahtani, Haya Faraj Alqahtani, Shahad Safar Alzahrani, Rasha Alhomaidi Almutairi, Salma Elhag, "The Use Of Digitization And Digital Transformation In Crowd Management In Hajj: Case Study", In The 21th Scientific Forum On Research In Hajj,Umrah And Visits &Nbsp;https://drive.uqu.edu.sa/_/Hajj/Files/Multaqa/%D8%A7%D9%84%D8%B3%D8%Ac%D9%84%20%D8%A7%D9%84%D8%B9%D9%84%D9%85%D9%8a%2021.Pdf, 2022.
15. Rahaf Alsuhaimi , Shahad Alsaedi , Soha Zarabah, Maysoon Alzahrani , Salma Elhag, "Airport Smart Gates System With Face Recognition Technology For Pilgrims", In The 21th Scientific Forum On Research In Hajj,Umrah And Visits &Nbsp;https://drive.uqu.edu.sa/_/Hajj/Files/Multaqa/%D8%A7%D9%84%D8%B3%D8%Ac%D9%84%20%D8%A7%D9%84%D8%B9%D9%84%D9%85%D9%8a%2021.Pdf, 2022.
16. Dhefah Radain, Saliha Almalki, Shatha A. Almarghalani, Salma Elhag, "Towards Achieving The 2030 Vision, The Case Study Of Automating The Food Production Services During The Hajj Season And Quality Control Using The Blockchain Technology", Icfnds 2021: The 5th International Conference On Future Networks & Distributed Systems, pp. 144-154, 2022.
DOI: [10.1145/3508072.3508096](https://doi.org/10.1145/3508072.3508096)
17. Joanna Albargi, Salma Elhag, "Developing An Automatic Covid-19 Diagnostic Care System Using Machine Learning", Icfnds 2021: The 5th International Conference On Future Networks & Distributed Systems, pp. 155-161, 2022.
DOI: [10.1145/3508072.3508097](https://doi.org/10.1145/3508072.3508097)
18. Anhar Maatoq Ashi, Salma Elhag, "Enhancing Customer Relationship Management Using Association Rule Mining And The Evolutionary Algorithm", Icfnds 2021: The 5th International Conference On Future Networks & Distributed Systems, pp. 162-170, 2022.
DOI: [10.1145/3508072.3508098](https://doi.org/10.1145/3508072.3508098)
19. Zainab Alsharif, Salma Elhag, Sulhi Alfakheh, "Depression Detection In Arabic Using Speech Language Recognition", 2022 7th International Conference On Data Science And Machine Learning Applications (Cdma), pp. 61-66, 2022.
DOI: [10.1109/CDMA54072.2022.00015](https://doi.org/10.1109/CDMA54072.2022.00015)
20. Nouf Aljuhani, Fatimah Alshahrani, Amani Alharbi, Nuha Aldini, Hawazin Albalawi, Salma Elhag, "Robotic Process Automation And Re-Engineering Using Bizagi And Uipath: A Case Study On A Mortgage Request Process <https://www.inderscienceonline.com/doi/abs/10.1504/Ijspm.2021.121712>", International Journal Of Simulation And Process Modelling, 2022.
21. K. M. Jambi, I. H. Khan, M. A. Siddiqui and S. O. Alhaj, "K. M. Jambi, I. H. Khan, M. A. Siddiqui And S. O. Alhaj, "Towards Authorship Attribution In Arabic Short-Microblog Text," In Ieee Access, Vol. 9, Pp. 128506-128520, 2021, Doi: 10.1109/Access.2021.3112624.", Ieee Access, 2021.
22. H. S. Alghamdi, G. Amoudi, S. Elhag, K. Saeedi and J. Nasser, ""Deep Learning Approaches For Detecting Covid-19 From Chest X-Ray Images: A Survey," In Ieee Access, Vol. 9, Pp. 20235-20254, 2021, Doi:", Ieee Access, 2021.
23. Aisha Alturkistani, Elaaf Aljohani, Raghad Alharbi, Rahaf Assar, Sara Aloufi, Dr.Salma Mahgoub, "Business Process Automation And Re-Engineering For Enhancing Recruitment And Selection Process: Case Study In Refining & Petrochemical Company", International Journal Of Science And Research (Ijsr), 2020.
24. Asma AL Zahrani , Reham Al Wadai , Redha AL Sulami , Zinah Matar4 , Salma Mahgoub, "Bp Evaluation And Re-Engineering: Case Study Acquiring Travel Plan Quotations", International Journal Of Science And Research (Ijsr), 2020.
25. Aisha Alturkistani, Elaaf Aljohani, Raghad Alharbi, Rahaf Assar, Sara Aloufi, Dr. Salma Mahgoub, "Business Process Automation And Re-Engineering For Enhancing Recruitment And Selection Process: Case Study In Refining & Petrochemical Company", International Journal Of Science And Research (Ijsr), 2020.

Publications.

26. Salma Mahgoub , Shaza Bitar , Dareen Alhabeeb, "Anatomy World: An Augmented Reality Mobile Application To Teach Anatomy To School Students", Journal Of Innovation In Computing, 2020.
27. SALMA MAHGOUB , RANA ALMOHAMMADI , MASARRA ALDRAMLEY, "A Novel Framework For Blockchain Enabled Business Process", Journal Of Innovation In Computing, 2020.
28. AthirAlghamdi , Bashaer Alsaadi , Bushra Alsaadi , Mashaal Alfheid , Sara Alzahrani , Salma Elhag, "Business Process Re-Engineering And Automation In Health Field: A Case Of Medical Equipment Evaluation", International Journal Of Science And Research (Ijsr), 2019.
29. Salma Elhag, Malak Alqarni, Juman Ahmad, Meznah Humidan, "Medhelp: A Mobile Application To Connect Pilgrims With First-Aiders During Al-Hajj", International Journal Of Computer Applications, vol: 181, pp. 1-5, 2019.
DOI: [10.5120/ijca2019918669](https://doi.org/10.5120/ijca2019918669)
30. Sara Fatima, Salma Mahgoub, "Predicting Student'S Performance In Education Using Data Mining Techniques", International Journal Of Computer Applications, vol: 177, pp. 14-20, 2019.
DOI: [10.5120/ijca2019919607](https://doi.org/10.5120/ijca2019919607)
31. Salma Elhag, Ebtehaj Alshahrani, Zainab Alsharif, "An Automated Experience-Based Business Process Reengineer: Case Study Bank Call Center", International Journal Of Science And Research (Ijsr), 2019.
32. Abeer Al Hattami, Bodor Almotairy, Ola Toraba, Salma Mahgoub, "Reengineering And Automation Of Business Processes: A Case Study With Universities Travel Request Business Process", International Journal Of Science And Research (Ijsr), 2019.
33. Fatimah Alruwaili, Layla Almalki, Dr. Salma Mahgoub, "Business Process Automation And Re-Engineering Using Bizagi: Case Study On Loan Request Process", International Journal Of Science And Research (Ijsr), 2019.
34. Dr. Salma Mahjoub, Shymaa Alyahibi, Muna Alrajhi, "Bpr-By Enhancing Customer Engagement: Case Study Of Vehicle Insurance Request Process", International Journal Of Science And Research (Ijsr), 2019.
35. Salma Elhag, "Intelligent Waste Separator And Recycling (Iwsr) Using Using Iot And Evolutionary Fuzzy Logic Technology With Energy Efficient Sensing During Hajj And Umrah Crowd Seasons", International Advanced Research Journal In Science, Engineering And Technology. 2019, 2019.
36. Elhag S, Fern´ndez A, Alshomrani S, Herrera F, "A Case Study For Intrusion Detection Systems", 2019.
37. Amjad Abdullah Almubarak, Salma Mahjoob Omar, "Computer-Aided Systematic Business Process Management: Case Study Of Pg Program", 2018 14th International Computer Engineering Conference (Icenco), pp. 36-41, 2018.
DOI: [10.1109/ICENCO.2018.8636109](https://doi.org/10.1109/ICENCO.2018.8636109)
38. Salma Mahgoub Gafer, "Assessment Of Two Enterprise Architecture Softwares For Presentation For University Students", Engineering And Technology Journal, 2018.
39. Salma Mahgoub Gafer, "Decision Support Top Software Products: A Review", Engineering And Technology Journal, 2018.
40. Salma Elhag, Alberto Fern´ndez, Abdulrahman Altalhi, Saleh Alshomrani, Francisco Herrera, "A Multi-Objective Evolutionary Fuzzy System To Obtain A Broad And Accurate Set Of Solutions In Intrusion Detection Systems", Soft Computing, 2017.
DOI: [10.1007/s00500-017-2856-4](https://doi.org/10.1007/s00500-017-2856-4)
41. Salma Mahgoub, "Game Based Learning And Using Course Learning, Collaboration And Management Tools In Black Board", International Journal Of Computer Applications, vol: 154, pp. 21-24, 2016.
DOI: [10.5120/ijca2016912034](https://doi.org/10.5120/ijca2016912034)

Publications.

42. Salma Elhag, Alberto Fernandez, Abdullah Bawakid, Saleh Alshomrani, Francisco Herrera, "On The Combination Of Genetic Fuzzy Systems And Pairwise Learning For Improving Detection Rates On Intrusion Detection Systems", Expert Systems With Applications, vol: 42, pp. 193-202, 2015.
DOI: [10.1016/j.eswa.2014.08.002](https://doi.org/10.1016/j.eswa.2014.08.002)
43. Siddiqui, M.A., Khan, I.H., Jambi, K.M., Elhaj, S.O. and Bagais, A., "Developing An Arabic Plagiarism Detection Corpus.", Aircc Publishing Corporation, 2014.
44. Farrukh Nadeem, Salma Mahgoub, "Student-Centered Role-Based Case Study Model To Improve Learning In Decision Support Systems", International Journal Of Modern Education And Computer Science, vol: 6, pp. 16-22, 2014.
DOI: [10.5815/ijmeecs.2014.10.03](https://doi.org/10.5815/ijmeecs.2014.10.03)
45. Salma M. Gaffer, Daniyal M. Alghazzawi, "Using Virtual Security Lab In Teaching Cryptography", International Journal Of Modern Education And Computer Science, vol: 4, pp. 26-32, 2012.
DOI: [10.5815/ijmeecs.2012.01.04](https://doi.org/10.5815/ijmeecs.2012.01.04)
46. Salma Mahgoub Gaffer, Moawia Elfaki Yahia, Khaled Ragab, "Genetic Fuzzy System For Intrusion Detection: Analysis Of Improving Of Multiclass Classification Accuracy Using Kddcup-99 Imbalance Dataset", 2012 12th International Conference On Hybrid Intelligent Systems (His), pp. 318-323, 2012.
DOI: [10.1109/HIS.2012.6421354](https://doi.org/10.1109/HIS.2012.6421354)
47. Salma Mahgoub, Farrukh Nadeem, "Interactive Case Based Learning In Teaching Decision Support Systems And Business Intelligence", The 13th International Conference, pp. 1-4, 2012.
DOI: [10.1145/2379636.2379669](https://doi.org/10.1145/2379636.2379669)