
Faculty Vitae

1. Name

Dr. Safaa O. Al-mamory

2. Education

- **Harbin Institute of Technology, Harbin, China**

Ph.D., School of Computer Science and Technology, 2006-2009

Thesis: Filtering and correlating of intrusion detection system alerts

Area of Study: Network security

- **University of Technology, Baghdad, Iraq**

M.Sc., Department of Computer Science and Information Systems,

2000-2002

Thesis: Intrusion detection system using statistical techniques

Area of Study: Information security

B.S., Department of Computer Science and Information Systems, 1996-2000

3. Academic experience

Scientific Title:

- Assist. Prof. 2015-till now, Business Informatics College at UOITC, Iraq.
- Assist. Prof. 2011-2015, University of Babylon, Iraq.
- Lecturer (2006 -2011), University of Babylon, Iraq.
- Assist. Lecturer (2003-2006), University of Babylon, Iraq

Supervision:

- Ali Hashim, "Design an Online Open Source Anomaly Intrusion Detection System", Ph.D. Thesis, 2017-2019.

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- Hadeel Hassan, "Smart Gate Security Detection", Master Thesis, 2016-2017.
 - Adel M. Salman, "Cooperated Solution For Large Scale Attacks", Ph.D. Thesis, 2015-2017.
 - Israa Salih, "Enhancing DBSCAN Clustering Algorithm Using a New Density Based Sampling Technique", Master Thesis, 2014-2015.
 - Zahraa Najim, "Enhancing Association Rules Interpretability", Master Thesis, 2014-2015.
 - Hazim Jalil, "Resource Detection in Unstructured P2P Networks," Ph.D. Thesis, 2013-2015.
 - Zahraa M. Ali, "Enhancing Firewall Design Through Rule Confliction Detection," Master Thesis, 2012-2013.
 - Ali Hussain, "P2P Packet Identification Using Data Mining," Master Thesis, 2012-2013.
 - Hiba Adnan, "A New Method for Data Mining Privacy Preserving," Master Thesis, 2012-2013.
 - Firas Sabah, "Fast Anomaly-Based Intrusion Detection System," Master Thesis, 2011-2012.
 - Mazin Kadhum Hameed, Enhancing Attribute Oriented Induction Data Mining Algorithm," Master Thesis, 2010-2012.
 - Anees Mohsin, "Improving The Efficiency of Snort Intrusion Detection System Using Packet Classification," Master Thesis, 2010-2011.

Fellowships:

- A fellowship from the CSC (China, Chinese Scholarship Council) to complete the Ph.D. degree requirements, 2006-2009.
- Fulbright Visiting Scholar Program (United States, CIES), June 2011 for 10 weeks, Florida State University.

5. Certifications or professional registrations

- Certificate of Participation in the Spring 2017 P2P: Facebook Global Digital Challenge.
- Introduction to Statistics: Probability, online certificate from University of California at Berkeley through edX, a course of study offered by BerkeleyX, an online course, May 2013.
- Awareness Campaign, Alumni University, Embassy of USA in Iraq, 2013.
- Advanced Project Management and Leadership Skills, Alumni University, Embassy of USA in Iraq, 2012.
- Certificate of Completion of Program for Instruction Excellence, Florida State University, 2011.
- Post-doctoral visiting fellowship program in Science and Technology, Florida State University, 2011.
- Certificate of Completion of Fulbright Scholarship Program, June-September, 2011.
- Several other local certificates.

9. Publications/Presentations

2018(1)

- Safaa O. Al-mamory, Hazim Aburagheef, "[Clustering an Unstructured P2P Networks Using a Termite Hill Building Model](#)", 3rd [International Conference on New Trends in Information and Communications Technology Applications](#), CCIS, Springer, 2018.

2017(4)

- Safaa O. Al-mamory, Israa S. Kamil, "A New Density Based Sampling To Enhance DBSCAN Clustering Algorithm", Malaysian Journal of Computer Science, Accepted Paper , 2017.
- Safaa O. Al-mamory?, "Classification Performance Enhancement Using Boundary Based Sampling Algorithm", Annual Conference on New Trends in Information & Communications Technology Applications, IEEE Xplore, Baghdad, 2017.
- Safaa O. Al-mamory, Zahraa M. Al-Jalal, "A Modified DBSCAN Clustering Algorithm for Proactive DDoS Detection", Annual Conference on New Trends in Information & Communications Technology Applications, IEEE Xplore, Baghdad, 2017.
- Abbas M. Al-Bakry, Safaa O. Al-mamory, Hadeel H. Mushatet, "Comparative Study on Automatic Vehicle Identification Techniques", Annual Conference on New Trends in Information & Communications Technology Applications, IEEE Xplore, Baghdad, 2017.

2016(2)

- Adel M. Salman, Safaa O. Al-mamory?, "An Evaluation Study on Performance Enhancement of Intrusion Detection Systems"?, Research Journal of Applied Sciences 11 (10), 910-920?.
- Adel M. Salman, Safaa O. Al-mamory?, "Features Evaluation for Anomaly Intrusion Detection System?", Research Journal of Applied Sciences 11 (10), 921-932?.

2015(6)

- Safaa O. Al-mamory, Firas S. Jassim, "On the Designing of Two Grains Levels Network Intrusion Detection System", Karbala International Journal of Modern Sciences, Elsevier, 1(1), 2015.
- Safaa O. Al-mamory, Zahraa N. Abdullah, "Enhancement of Association Rules Interpretability using Generalization, Journal of Babylon University, Accepted Paper , 2015.
- Safaa O. Al-mamory, Zahraa N. Abdullah, "Combining the Attribute oriented induction and graph visualization to enhancement association rules interpretation", Proceeding of the Annual Conference on Network Security and Distributed Systems, Baghdad, 2015.
- Safaa O. Al-mamory, Israa S. Kamil, "Data Partitioning Technique to Enhance DBSCAN Clustering Algorithm, Journal of Babylon University, Accepted Paper , 2015.
- Safaa O. Al-mamory, Israa S. Kamil, "Enhancing of DBSCAN Based on Density-Based Separation", Proceeding of the Annual Conference on Network Security and Distributed Systems, Baghdad, 2015.
- Safaa O. Al-mamory, Hazim J. Hassan, "Improving Standard K Random Walk Algorithm Using a Termite Hill Building Model", Journal of Babylon University, Accepted Paper , 2015.

2014(4)

- Safaa O. Al-mamory, Ali Hussein Ali, Packet Identification by Using Data Mining Techniques, University of Babylon Journal, Accepted Paper, 2015.
- Safaa O. Al-mamory, Hiba Adnan, Privacy Preserving in Data Mining, University of Karbala Journal, Accepted paper.
- Safaa O. Al-mamory, Hiba Adnan, Privacy Preserving in Data Mining using PAM Clustering Algorithm, University of Babylon Journal, Accepted Paper, 2015.
- Safaa O. Al-mamory, Zahraa M. Ali, Using DBSCAN Clustering Algorithm in Detecting DDoS Attack, University of Babylon Journal, Accepted Paper, 2015.

2012 (3)

- Firas Sabah, Safaa O. Al-mamory, Evaluation of Different Data Mining Algorithms with KDD CUP 99 Data Set, University of Babylon Journal, Accepted paper.
- Safaa O. Al-Mamory, Speed Enhancement of Snort Network Intrusion Detection System Using Distributed Environment, University of Babylon Journal, Accepted paper.
- Safaa O. Al-Mamory, Wesam Bhaya, Anees Mohsin, Enhancing Intrusion Detection System Using Distributed Environment, The First National Conference for Computer Science and Its Techniques, Basra, Iraq.

2011 (2)

- Safaa O. Al-Mamory, Wesam Bhaya, Anees Mohsin, Taxonomy of Packet Classification Algorithms, University of Babylon Journal, Accepted paper.
- Safaa O. Al-Mamory, Saad Talib Hassoon, Enhancing Attribute Oriented Induction of Data Mining, University of Babylon Journal, Accepted paper.

2010 (2)

- Safaa O. Al-Mamory, Ali Hamed, Asala Abdul-Razak, Zainab Falah, String Matching Enhancement for Snort IDS, In Proceeding of the 5th International Conference on convergence information technology (ICCIT 2010), Korea, 2010.
- Safaa O. Al-Mamory, Hongli ZHANG, New Data Mining Technique for Quality Enhancement of IDS Alarms, Journal in Computer Virology, Springer-France, 2010.

2009 (2)

- Safaa O. Al-Mamory, Hongli Zhang, Intrusion Detection Alarms Reduction Using Root Cause Analysis and Clustering, Computer Communications (EI compendex 20090411869488), 32(2), 2009, 419-430.
- Safaa O. Al-Mamory, Hongli ZHANG, IDS Alerts Correlation Using Grammar-Based Approach, Journal in Computer Virology, Springer-France, 2010.

2008 (4)

- Safaa O. Al-Mamory, ZHAI Jianhong, Hongli ZHANG, A Graph Based System For Multi-Stage Attacks Recognition, High Technology Letters, 14(2), June 2008, 167-173.
- Safaa O. Al-Mamory, Hongli ZHANG, Ayad R. Abbas, Modeling Network Attacks for Scenario Construction, in proceeding of IEEE world congress on computational intelligence, Hong Kong, 2008.
- Safaa O. Al-Mamory, Hongli ZHANG, Ayad R. Abbas, IDS Alarms Reduction Using Data Mining, in proceeding of IEEE world congress on computational intelligence, Hong Kong, 2008.
- Safaa O. Al-Mamory, Hongli ZHANG, Multistep Attacks Extraction Using Compiler Techniques, in proceeding of International Conference on High Performance Switching and Routing, Shanghai, 2008.

2007 (6)

- Safaa O. Al-Mamory, Hongli ZHANG, A Survey on IDS Alerts Processing Techniques, in

proceeding of the 6th WSEAS International Conference on Information Security and Privacy (ISP '07), Spain, 2007, 69-78.

- Safaa O. Al-Mamory, Hongli ZHANG, Building Scenario Graph Using Clustering, in proceeding of international conference on convergence information technology (ICCIT 2007), Korea, 2007.
- Safaa O. Al-Mamory, Hongli ZHANG, Scenario Discovery Using Abstracted Correlation Graph, in proceeding of International Conference on Computational Intelligence and Security (CIS-2007), Harbin, China, 2007.
- Ayad R. Abbas, Liu Juan, Safaa O. Mahdi, Improved Variable Precision Rough Set Model and Its Application to Distance Learning, in proceeding of International Conference on Computational Intelligence and Security (CIS-2007), Harbin, China, 2007.
- Ayad R. Abbas, Liu Juan, and Safaa O. Mahdi, A New Version of Bayesian Rough Set Based on Bayesian Confirmation Measures, in proceeding of international conference on convergence information technology (ICCIT 2007), Korea, 2007.
- Wisam Bhaya, Safaa O. Al-Mamory, Steganography Using Error Detection Method, Journal of Karbala University, Iraq, 2007

2005 (2)

- Safaa O. Al-Mamory, Tawfiq Al-asadi, Proposed Lossy Compression Method Using RLE and Segmentation, Journal of Babylon University, Iraq, 11(3), 2005.
- Wisam Bhaya, Safaa O. Al-Mamory, Suggested Solution for Boot Sector Viruses, Journal of Babylon University, Iraq, 13(3), 2005.

2004 (1)

- Safaa O. Al-Mamory, Proposed Algorithm for Data Integrity, Journal of Babylon University, Iraq, 10(3), 2004.

2002 (1)

- Safaa O. Al-Mamory, Hilal M. AlBayati, Intrusion Detection System by Using Statistical Techniques, Journal of Al-Rafidain University College for Sciences, Iraq, 12(2002).