MAMDOUH ALENEZI, PhD
College of Computer and Information Sciences

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EDUCATION

Ph.D. Software Engineering   **June 2014**
North Dakota State University, Fargo, ND
Thesis: "A New Coupling Metric: Combining Structural and Semantic Relationships"

M.S. Software Engineering   **June 2011**
DePaul University, Chicago, IL

B.S. Computer Science   **March 2010**
Prince Sultan University, Riyadh

CONSULTANCY and FUNDING EXPERIENCE

Wisconsin Falconers Association   **April 2011**
Building a reservation system for visitors. People from around the globe come and visit this association at certain times to visit certain types of birds prey.

National Information Solutions Cooperative (NISC)   **March 2013**
Helped them in transforming the billing management system of Walmart to a web service. The aim of the project was to help Branch managers to access utility bills on their mobile devices

Saudi Telecom Company (STC)   **May 2016**
A medium-size consultation project between STC and Prince Megren Data Mining Center (MEGDAM). The aim was to reducing repeated calls to improve field operations performance.

King Abdulaziz City for Science and Technology (KACST)   **January 2017**
Dynamic Capacity Provisioning in Cloud-Based Network. The aim is to handle the challenge of resource allocation in a cloud-based network. The model will handle advance and online reservation resource requests. (163,200 SAR).

TEACHING EXPERIENCE

Gifted High-school Students   **2009**
Mobile Development using Visual Studio

Prince Sultan University   **2014 to Present**
SE 201: Introduction to Software Engineering
SE 211: Software Construction
SE 311: Software Requirements Engineering
SE 322: Software Design & Architecture
SE 353: Building Secure Software Systems
SE 401: Software Quality Assurance & Testing
SE 415: Group Dynamics & Professional Practice

WORK EXPERIENCE

Dean of Educational Services
Prince Sultan University

Sep 2018 to Present

Associate Professor (Department of Computer Science)
Prince Sultan University

Dec 2018 to Present

Chief Information & Technology Officer
Prince Sultan University

Sep 2016 to Aug 2019

General Supervisor of Information Technology & Computing Services
Prince Sultan University

March 2016 to Aug 2016

Chairman of the Department of Computer Science
Prince Sultan University

Sep 2015 to Aug 2016

Assistant Professor (Department of Computer Science)
Prince Sultan University

Sep 2014 to Dec 2018

New Course Development

- SE 211: Software Construction
- SE 311: Software Requirements Engineering
- SE 415: Group Dynamics & Professional Practice

Master degree curriculum development

- Participated in development of MS in Software Engineering program
- Participated in development of MS in Cybersecurity Engineering program

Service and Administration

- University level Examination Committee
- College level Website committee
- Departmental Research Committee
- PSU Policy Committee
- PSU Strategic Planning Committee
- ABET Steering Committee
- Institutional Technology and Quality Committee

Master Thesis Committee

- An Assessment Model for SEO Techniques for Optimizing Web Search Results
- A Context-Aware Personalization Model for Augmented Reality Applications
- User Experience Dimensions, Aspects, and Measures: Systematic Literature Review
- Software Architecture Stability Evolution in Open Source Object-Oriented Systems

PUBLICATIONS

JOURNAL ARTICLES

J-45	Faraz Idris Khan, Yasir Javed, and **Mamdouh Alenezi**: "Security assessment of four open source software systems." Indonesian Journal of Electrical Engineering and Computer Science, Volume 16, Number 2, pp. 860 - 881 November 2019.
J-44	Faraz Idris Khan, and **Mamdouh Alenezi**: "Open Source Web-Based Software: Security Challenges and Assessment Methodologies." i-manager's Journal on Software Engineering (JSE), Volume 14, Issue 1, pp. 34 - 40 October 2019.
J-43	**Mamdouh Alenezi**, Mohammad Zarour, and Sultan Alsulis: "Dev Ops Development Process Awareness and Adoption -The Case of Saudi Arabia." i-manager's Journal on Software Engineering (JSE), Volume 14, Issue 1, pp. 19 - 27 October 2019.
J-42	**Mamdouh Alenezi** and Sadiq Almuairfi: "Security Risks in the Software Development Lifecycle." International Journal of Recent Technology and Engineering (IJRTE), Volume 8, Issue 3, pp. 7048 - 7055 September 2019.
J-41	Mohammad Zarour, Norah Alhammad, **Mamdouh Alenezi**, and Khalid Alsarayrah: "A Research on DevOps Maturity Models." International Journal of Recent Technology and Engineering (IJRTE), Volume 8, Issue 3, pp. 4854 - 4862 September 2019.

J-40	Hafsa Ashraf, **Mamdouh Alenezi**, Muhammad Nadeem, and Yasir Javed: "Security assessment framework for educational ERP systems." International Journal of Electrical and Computer Engineering (IJECE), Volume 9, Number 6, pp. 5570 - 5585 December 2019.
J-39	Alka Agrawal, Mohammad Zarour, **Mamdouh Alenezi**, Rajeev Kumar, and Raees Ahmad Khan: "Security durability assessment through fuzzy analytic hierarchy process." PeerJ Computer Science, 5:e215 September 2019.
J-38	Alka Agrawal, **Mamdouh Alenezi**, Dhirendra Pandey, Rajeev Kumar, and Raees Ahmad Khan: "Usable-Security Assessment Through A Decision Making Procedure." ICIC Express Letters, Part B: Applications, Volume 10, Number 8, pp. 665 - 672 July 2019.
J-37	Rajeev Kumar, Mohammad Zarour, **Mamdouh Alenezi**, Alka Agrawal, and Raees Ahmad Khan: "Measuring Security Durability of Software through Fuzzy-Based Decision-Making Process." International Journal of Computational Intelligence Systems, Volume 12, Number 2, pp. 627 - 642 June 2019.
J-36	Attiq ur Rehman Jaffar, Muhammad Nadeem, **Mamdouh Alenezi**, and Yasir Javed: "Using Public Vulnerabilities Data to Self-Heal Security Issues in Software Systems." ICIC Express Letters, Volume 13, Number 7, pp. 557 - 567 July 2019.
J-35	Alka Agrawal, **Mamdouh Alenezi**, Suhel Ahmad Khan, Rajeev Kumar, Raees Ahmad Khan: "Multi-level Fuzzy System for Usable-Security Assessment." Journal of King Saud University-Computer and Information Sciences (2019).
J-34	**Mamdouh Alenezi**, Rajeev Kumar, Alka Agrawal, and Raees Ahmad Khan: "Usable-Security Attribute Evaluation Using Fuzzy Analytic Hierarchy Process." ICIC Express Letters, Volume 13, Number 6, pp. 453 - 460 June 2019.
J-33	**Mamdouh Alenezi**, Muhammad Usama, Khaled Almustafa, Waheed Iqbal, Muhammad Ali Raza, and Tanveer Khan: "An Efficient, Secure, and Queryable Encryption for NoSQL-Based Databases Hosted on Untrusted Cloud Environments." International Journal of Information Security and Privacy (IJISP), Volume 13, Issue 2, pp. 14 - 31 (2019).
J-32	Park Youngeun and **Mamdouh Alenezi**: "Predicting the Popularity of Saudi Multinational Enterprises Using a Data Mining Technique." Journal of Management Information and Decision Sciences, Volume 21, Issue 1, (2018).
J-31	Md Tarique Jamal Ansari, Dhirendra Pandey, and **Mamdouh Alenezi**: "STORE: Security Threat Oriented Requirements Engineering Methodology." Journal of King Saud University - Computer and Information Sciences (2018).
J-30	**Mamdouh Alenezi**, Mohammad Zarour, and Khawlah Alomar: "Are Open Source Web Applications Secure? Static Analysis Findings." International Journal of System and Software Engineering, Vol. 6, No. 2, pp. 1 - 9 (2018).
J-29	**Mamdouh Alenezi** and Mohammad Zarour:: "An Empirical Study of Bad Smells during Software Evolution Using Designite Tool." i-manager's Journal on Software Engineering, 12(4), 12-27 (2018)
J-28	Yasir Javed, **Mamdouh Alenezi**, Mohammed Akour and Ahmad Alzyod: "Discovering the Relationship Between Software Complexity and Software Vulnerabilities." Journal of Theoretical and Applied Informtion Technology, Vol. 96, No. 14, pp. 4690 - 4699 (2018).
J-27	**Mamdouh Alenezi**, Shadi Banitaan, and Mohammad Zarour: "CLUBA: A Clustering-Based Approach for Bug Assignment." International Journal of System and Software Engineering, Vol. 6, No. 1, pp. 1 - 9 (2018).
J-26	Muhammad Abdullah, Saad Khan, **Mamdouh Alenezi**, Khaled Almustafa, and Waheed Iqbal: "Application Centric Virtual Machine Placements to Minimize Bandwidth Utilization in Datacenters." Intelligent Automation and Soft Computing.
J-25	Iman Almomani and **Mamdouh Alenezi**: "Efficient Denial of Service Attacks Detection in Wireless Sensor Networks." Journal of Information Science and Engineering Vol. 34, No. 4 (2018), pp. 977 - 1000.
J-24	Layla Alrawais, **Mamdouh Alenezi**, and Mohammad Akour: "Security Testing Framework for Web Applications." International Journal of Software Innovation (IJSI) Vol. 6, No. 3 (2018), pp. 93 - 117.
J-23	Turki Alshammary and **Mamdouh Alenezi**: "Software Architecture Understandability in Object-Oriented Systems." i-manager's Journal on Software Engineering Vol. 12, No. 2 (2018), pp. 1 - 14.
J-22	Mohannad Alsayat and **Mamdouh Alenezi**: "ERP Implementation Failures in Saudi Arabia: Key Findings." International Business Management Vol. 12, No. 1 (2018), pp. 10 - 22.

J-21	**Mamdouh Alenezi**, Khaled Almustafa and Khalim Amjad Meerja: "Cloud based SDN and NFV architectures for IoT infrastructure." Egyptian Informatics Journal (2018).
J-20	**Mamdouh Alenezi**, Shadi Banitaan and Mohammad Zarour: "Using Categorical Features in Mining Bug Tracking Systems to Assign Bug Reports." International Journal of Software Engineering & Applications (IJSEA) Vol. 9, No. 2 (2018), pp. 29 - 39.
J-19	Abdulrahman Asiri, Qasem Obiedat and **Mamdouh Alenezi**: "A Cloud-Based Cross - Enterprise Imaging Framework." i-manager's Journal on Software Engineering Vol. 12, No. 1 (2018), pp. 6 - 25.
J-18	**Mamdouh Alenezi**, Khaled Almustafa and Mohamed Hussein: "On Virtualization and Security-Awareness Performance Analysis in 5G Cellular Networks." Journal of Engineering Science and Technology Review Vol. 11, No. 1 (2018), pp. 199 - 207.
J-17	**Mamdouh Alenezi** and Mohammad Zarour: "Software vulnerabilities detection based on security metrics at the design and code levels: empirical findings." Journal of Engineering Technology Vol. 6, No. 1 (2018), pp. 570-583.
J-16	Hassan Almousa and **Mamdouh Alenezi**: "Measuring Software Architecture Stability Evolution in Object-Oriented Open Source Systems." Journal of Engineering and Applied Sciences Vol. 12, No. 2 (2017), pp. 353-362.
J-15	Mohammed Akour, Samah Aldiabat, Hiba Alsghaier, Khalid Alkhateeb and **Mamdouh Alenezi**: "Software Architecture Understandability of Open Source Applications." International Journal of Computer Science and Information Security (IJCSIS) Vol. 14, No. 10 (2016), pp. 65-78.
J-14	Shadi Banitaan, Mohammad Akour and **Mamdouh Alenezi**: "A Test Suite Reduction Approach for Software Unit Testing." Advanced Science Letters Vol. 22, No. 10 (2016), pp. 2977-2981.
J-13	Thamer Alhamed and **Mamdouh Alenezi**: "Business Continuity Management & Disaster Recovery Capabilities in Saudi Arabia ICT Businesses." International Journal of Hybrid Information Technology Vol. 9, No. 11 (2016), pp. 99-126.
J-12	**Mamdouh Alenezi** and Yasir Javed: "Developer Companion: A Framework to Produce Secure Web Applications." International Journal of Computer Science and Information Security Vol.14, No.7 (2016), pp.12-16.
J-11	**Mamdouh Alenezi**, "Software Architecture Quality Measurement Stability and Understandability." International Journal of Advanced Computer Science and Applications(IJACSA), Volume 7 Issue 7, pp. 550-559 (2016)
J-10	Ibrahim Abunadi and **Mamdouh Alenezi**: "An Empirical Investigation of Security Vulnerabilities within Web Applications." Journal of Universal Computer Science Vol. 22, No. 4, pp. 537-551 (2016).
J-09	**Mamdouh Alenezi** and Mohammad Zarour: "Does Software Structures Quality Improve over Software Evolution? Evidences from Open-Source Projects." International Journal of Computer Science and Information Security (IJCSIS) Vol.14, No.1 (2016), pp. 61-75.
J-08	**Mamdouh Alenezi** and Ibrahim Abunadi: "Evaluating Software Metrics as Predictors of Software Vulnerabilities." International Journal of Security and Its Applications Vol.9, No.10 (2015), pp.231-240.
J-07	**Mamdouh Alenezi** and Ibrahim Abunadi: "Quality of Open Source Systems from Product Metrics Perspective." International Journal of Computer Science Issues 12.5 (2015): 143-148.
J-06	**Mamdouh Alenezi** and Fakhry Khellah. "Evolution Impact on Architecture Stability in Open-Source Projects." International Journal of Cloud Applications and Computing (IJCAC) 5.4 (2015): 24-35.
J-05	Shadi Banitaan and **Mamdouh Alenezi**: "Software Evolution via Topic Modeling: An Analytic Study." International Journal of Software Engineering and Its Applications Vol. 9, No. 5 (2015), pp. 43-52
J-04	**Mamdouh Alenezi** and Khaled Almustafa: "Empirical Analysis of the Complexity Evolution in Open-Source Software Systems" International Journal of Hybrid Information Technology (IJHIT), Vol.8, No.2, 2015.
J-03	**Mamdouh Alenezi**: "Extracting High-Level Concepts from Open-Source Systems." International Journal of Software Engineering and Its Applications Vol.9, No.1, (2015).
J-02	**Mamdouh Alenezi** and Kenneth Magel: "Empirical Evaluation of A New Coupling Metric: Combining Structural and Semantic Coupling." International Journal of Computers and Applications 36(1) (2014).
J-01	**Mamdouh Alenezi**, Kenneth Magel, and Shadi Banitan. "Efficient Bug Triaging Using Text Mining", Journal of Software 8(9), 2185-2190 (2013).

CONFERENCE PROCEEDINGS

C-17	**Mamdouh Alenezi** and Faraz Idris Khan: "Context-Sensitive Case-Based Software Security Management System." 3rd Computational Methods in Systems and Software 2019.
C-16	**Mamdouh Alenezi** and Iman Almomani: "Empirical Analysis of Static Code Metrics for Predicting Risk Scores in Android Applications." 5th International Symposium on Data Mining Applications (SDMA2018), Riyadh, Saudi Arabia.
C-15	**Mamdouh Alenezi** and Iman Almomani: "Abusing Android Permissions: A Security Perspective." 2017 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, Jordan.
C-14	Khaled Almustafa and **Mamdouh Alenezi**: "Cost Analysis of SDN/NFV Architecture over 4G Infrastructure." The 8th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN-2017), Lund, Sweden.
C-13	**Mamdouh Alenezi**, Mohammed Akour, Alaa Hussien, and Mohammad Z. Al-Saad: "Test Suite Effectiveness: An Indicator for Open Source Software Quality." The 2nd International Conference on Open Source Software Computing (OSSCOM 2016), Beirut, Lebanon
C-12	**Mamdouh Alenezi** and Yasir Javed: "Open Source Web Application Security: A Static Analysis Approach." International Conference on Engineering & MIS 2016 (ICEMIS'16), Agadir, Morocco.
C-11	Yasir Javed and **Mamdouh Alenezi**: "Defectiveness Evolution in Open Source Software Systems." 4th Symposium on Data Mining Applications (SDMA 2016), Riyadh, Saudi Arabia.
C-10	Khaled Almustafa and **Mamdouh Alenezi**: "Dynamic Evolution of Source Code Topics." The Tenth International Conference on Software Engineering Advances (ICSEA 2015), Barcelona, Spain.
C-09	Ibrahim Abunadi and **Mamdouh Alenezi**: "Towards Cross Project Vulnerability Prediction in Open Source Web Applications." International Conference on Engineering & MIS 2015 (ICEMIS'15), Istanbul, Turkey.
C-08	**Mamdouh Alenezi** and Mohammad Zarour: "Modularity Measurement and Evolution in Object-Oriented Open-Source Projects." International Conference on Engineering & MIS 2015 (ICEMIS'15), Istanbul, Turkey.
C-07	**Mamdouh Alenezi** and Fakhry Khellah: "Architectural Stability Evolution in Open-Source Systems." International Conference on Engineering & MIS 2015 (ICEMIS'15), Istanbul, Turkey.
C-06	**Mamdouh Alenezi**, Shadi Banitaan, and Qasem Obeidat: "Fault-Proneness of Open Source Systems: An Empirical Analysis." International Arab Conference on Information Technology (ACIT 2014), Nizwa, Oman.
C-05	**Mamdouh Alenezi** and Kenneth Magel: "A New Coupling Metric: Blending Structural and Semantic Relations." 13th IASTED International Conference on Software Engineering (SE 2014), Innsbruck, Austria.
C-04	**Mamdouh Alenezi** and Shadi Banitaan: "Bug Reports Prioritization: Which Features and Classifier to Use?." 12th IEEE International Conference on Machine Learning and Applications (ICMLA), IEEE, 2013.
C-03	Shadi Banitaan and **Mamdouh Alenezi**: "DECOBA: Utilizing Developers Communities in Bug Assignment." 12th IEEE International Conference on Machine Learning and Applications (ICMLA), IEEE, 2013.
C-02	Shadi Banitaan and **Mamdouh Alenezi**: "TRAM: An approach for assigning bug reports using their Metadata." Third International Conference on Communications and Information Technology (ICCIT), IEEE, 2013.
C-01	Shadi Banitaan, **Mamdouh Alenezi**, Kendall Nygard, and Kenneth Magel. "Towards Test Focus Selection in Integration Testing using Method Level Software Metrics", 10th International Conference on Information Technology: New Generations (ITNG Software Testing 2013).

Services

Conference Chair
- 5th International Symposium on Data Mining Applications (SDMA2018)
- 6th International Conference on Data Science and Machine Learning Applications (CDMA 2020)

Program Committee Membership
- Workshop on Machine Learning for Predictive Models (MLPM 2014), 13th IEEE International Conference on Machine Learning and Applications (ICMLA 2014).
- International Conference on Computing and Informatics (ICOCI 2015).
- The Third Information Systems International Conference (ISICO 2015).
- The Tenth International Conference on Software Engineering Advances (ICSEA 2015).
- International Conference on Computing Education and Information Technology (ICCEIT 2015).
- Workshop on Machine Learning for Predictive Models in Engineering Applications (MLPMEA 2015), 14th IEEE International Conference on Machine Learning and Applications (ICMLA 2015).
- International Conference on Computing Education and Information Technology (ICCEIT 2015).
- The 7th International Conference on Information and Communication Systems (ICICS 2016).
- The 4th Symposium on Data Mining Applications (SDMA 2016).
- The 4th Saudi International Conference on Information Technology, Big Data Analysis (KACSTIT2016).
- The Eleventh International Conference on Software Engineering Advances (ICSEA 2016).
- Special Session: Machine Learning for Predictive Models in Engineering Applications, The 18th IEEE International Conference on Machine Learning and Applications (ICMLA 2019).

Reviewer of International Indexed Journals
- International Journal of Cloud Applications and Computing (IJCAC).
- KSII Transactions on Internet and Information Systems.
- Journal of Ambient Intelligence and Humanized Computing.
- International Journal of Software Engineering and Knowledge Engineering.
- Information and Software Technology.

Master Students Supervision
- Hussain Alshehri - Internet of Things - Architecture of Multiple Sources Data Acquisition Sensors
- Sultan Alotaibi - An exploratory study of DevOps Awareness and Adoption in Saudi Arabia
- Abdulrahman Asiri - Cloud-based Cross-enterprise Imaging Framework
- Thamer Alhamed - Measuring the Capability of Business Continuity Management & Disaster Recovery in the Kingdom of Saudi Arabia ICT Companies
- Turki Alshammary - Software Architecture Understandability in Object-Oriented Systems
- Hassan Al-Mousa - Software Architecture Stability Evolution in Open Source Object-Oriented Systems
- Laila Al-Rowais - Framework for Security Testing of Web Applications
- Khawlah AlOmar - Static Analysis of Open-Source Web Applicationss