

Dr. Mohammad Ababneh

Telephone: +96265359949 Ex: 5342

E-mail: [m\[dot\]lababneh\[at\]psut\[dot\]edu\[dot\]jo](mailto:m[dot]lababneh[at]psut[dot]edu[dot]jo), [mababneh\[at\]gmail\[dot\]com](mailto:mababneh[at]gmail[dot]com)

Education

- Ph.D. Information Technology - Information Security, George Mason University, Fairfax, VA, 2014.
- Graduate Certificate in Information Security and Assurance, George Mason University, Fairfax, VA, 2012.
- MSc. Computer Science – Computer Networks, Naval Post Graduate School, Monterey, CA, USA, 2000.
- MSc. Information Technology Management *with Distinction*, Naval Post Graduate School, Monterey, CA, USA, 2000.
- BSc. Computer Science, Mu'tah University, Mu'tah, Karak, Jordan, 1994.

Academic Experience

- Princess Sumaya University for Technology, Amman, Jordan, 2017 - Present
 - **Assistant Professor:** Computer Science and Cybersecurity
 - **Teaching:**
 - Undergraduate courses:
 - Operating Systems, Information Systems Security, Visual Programming with .Net & C#, Operating Systems Security, Web Development with HTML, CSS, JavaScript & PHP, Object oriented programming using Java, Database Systems Management Systems, Database Tools, Business Intelligence, Computer Skills, Computer Networks, Graduation Project – Bachelor & Master.
 - Graduate courses:
 - Digital Forensics: cybercrimes, digital investigations, evidence collection and management, network forensics, OS forensics, file systems, forensics data management and analysis. Tools: FTK, EnCase, Autopsy, Sluthkit, Wireshark, nmap, Volatility, Splunk, Argus, Ghir0, Kali, SANS, Cellebrite, etc.
 - Advanced Operating Systems
 - **Research:**
 - Areas of research include: network security, digital forensics, identity management, authentication and authorization, access control, physical security, IoT, Blockchain, Smart Cities, Interactive Voice Response systems, malware and attack detection using AI, ML, Semantic Web and Ontologies.
 - Supervised graduate projects and dissertations on security and forensics
 - **Curriculum Development**
 - Participated in the development of Digital Forensics curriculum in cooperation with an EU project (FORC) to create a forensics pathway in computer science programs at multiple middle eastern universities. I was a primary author of the network forensics book and a reviewer of the mobile forensics book.
 - **Supervision:**
 - Supervised many graduate and undergraduate graduation projects
 - Thesis supervision
 - **Competitions:**
 - Supervised and helped organizing cyber competitions at PSUT and other institutions

Dr. Mohammad Ababneh

Telephone: +96265359949 Ex: 5342

E-mail: [m\[dot\]lababneh\[at\]psutf\[dot\]leduf\[dot\]jo](mailto:m[dot]lababneh[at]psutf[dot]leduf[dot]jo), [mababneh\[at\]gmail\[dot\]com](mailto:mababneh[at]gmail[dot]com)

- Coached a team of students to participate in Global Colligate Penetration Testing competition (CPTC) organized by Rochester institute of Technology and the team won qualification for the final three times after winning the first place in the regional qualifications two times.
- George Mason University, The Volgenau School of Engineering, Fairfax, VA, USA, 2009-2014
 - **Adjunct Professor:** Object Oriented Programming Using Java.
 - **Graduate Research Assistant–PhD Candidate,** Research dissertation title “A Dynamic Dialog System Using Semantic Web Technology” for Access Control.
 - Information security research at the Center of Secure Information Systems (CSIS):
 - Developed an interactive voice response (IVR) system for access control (enforced by XACML policies) using cloud-based voice recognition - browsing and programming using VoiceXML.
 - Enhanced IVR systems with Computerized Adaptive Testing (CAT’s) technologies, Item Response Theory (IRT) and Semantic Web technologies using OWL ontology and reasoners.
 - Performance analysis of ontology repositories and reasoners.
 - Research on SOA and BPEL security
 - Command and Control and Simulation Interoperability research
 - Lead developer of “BMLC2GUI”; an open-source front-end interface tool for a standardized language integrating Modulation and Simulation with Command and Control systems strengthened with Geospatial capabilities, <https://netlab.gmu.edu/trac/OpenBML/>
 - Architect and Lead developer of a web version of the tool.
 - Technologies used: Java, XML, Java Script, JMS, Hibernate, MySQL, JBoss, Tomcat, SVN, etc.
- Arab Open University, Information Systems Department, Amman, Jordan, 2015
 - **Adjunct Professor:** Web Application Development, Database Management Systems, Introduction to Computing and the Internet
- Jordan University, King Abdullah II School of Information Technology, Amman, Jordan, 2002-2007
 - **Part-time instructor:** Computer Skills, Database Tools and Languages, Business Intelligence.
- Royal Jordanian Air Force, Computer Training Center and Prince Faisal Technical College, Amman, Jordan,
 - **Part-time instructor:** Introduction to Computers, Basic Programming, Computer Applications, Software Maintenance, Lotus Notes, Oracle Database and Development, Computer Networks, 1996-2001

Professional Experience

- Royal Jordanian Air force (RJAF), Amman, Jordan, 1994 - 2017.
 - **Information Security Program Manager/ Architect – 2014 -2017**
 - Established and managed RJAF’s Information Security program
 - Managed procurement and implementation of Cyber Security systems and services
 - Developed and supervised enforcement of policies, procedures and standards
 - Managed and led evaluation and testing of security tools and equipment
 - Established RJAF’s Security Operation Center (SOC)

Dr. Mohammad Ababneh

Telephone: +96265359949 Ex: 5342

E-mail: [m\[dot\]lababneh\[at\]psutf\[dot\]leduf\[dot\]jo](mailto:m[dot]lababneh[at]psutf[dot]leduf[dot]jo), [mababneh\[at\]gmail\[dot\]com](mailto:mababneh[at]gmail[dot]com)

- Built and supervised RJAF's Digital Forensics capabilities
- Led and conducted major incidents' forensic investigations and managed response.
- Represented RJAF at the Jordan National Committee for Cyber Security
- **Information Security Officer:**
 - Established the Information Security branch and took the responsibility of protecting highly sensitive military systems and networks. Established access control policies and conducted auditing for compliance
 - Designed, implemented and managed highly secure infrastructure including: firewalls, IDS/IPS, encryption, monitoring tools (SIEM), VPN, vulnerability assessment, penetration testing, anti-virus, backup, etc.
- **Application Developer/Analyst:**
 - Lead developer/analyst of in-house applications such as: bidding and frequency coordination (DBase and Foxpro). Training and maintenance and HR (MS Access, VB). Management Information System (Oracle). Data bank, flight hours, library, aircraft supply (Lotus Notes).
 - Provided architecture advice and expert guidance with IT services (infrastructure, systems, connectivity, services, policies and procedures).
- Lockheed Martin & Anriva Information Management, 1/2014 – 9/2014.
 - **Consultant-Technical Architect**
 - System architecture and integration between multiple systems, tools, servers, Oracle ERP applications, databases and web services.
- National Center for Security and Crisis Management, Amman, Jordan, 2006 - 2008.
 - **Chief Information Security Officer:**
 - Established and headed the branch of information and network security. Established the secure IT use and security policy.
 - Designed and implemented information security infrastructure and systems.
 - Implemented and managed Symantec Security and Management solutions and tools.
 - Implemented and used open-source security and management tools.
- Jordan Aeronautical System Company (JAC), Jordan International Air Cargo Company (JIAC), Royal Falcon, Amman, Jordan, 2003 - 2006.
 - **Information Technology Manager/Developer/Analyst/Administrator:**
 - Established and managed the IT services of the startup company (a government's project), which included all hardware, software, systems and networks.
 - Developed in-house applications for cargo operations management and sales.
 - Managed and led the implementation of the Maintenance-Repair-Overhaul ERP System (Visaer) successfully. Worked as an administrator and a developer on the ERP system. Managed the oracle database (DBA), created new oracle reports, developed ASP web forms.
 - Developed and guided the use of Business Intelligence (BI) applications using Cognos Impromptu.
 - Designed, installed and managed the network and systems infrastructure including Windows 2003 and 2008 servers, routers, switches, VoIP, E-mail, DNS, Active Directory, Internet services, VPN, Firewalls, proxies, backups, anti-virus, etc.

Service

- Jordan National Committee for Cyber Security, 2016-2018
 - Overseeing national information security of Armed Forces and Government
- Jordan National Committee for Cyber Security systems and services procurement, 2016-

Dr. Mohammad Ababneh

Telephone: +96265359949 Ex: 5342

E-mail: [m\[dot\]lababneh\[at\]psut\[dot\]edu\[dot\]jo](mailto:m[dot]lababneh[at]psut[dot]edu[dot]jo), [mababneh\[at\]gmail\[dot\]com](mailto:mababneh[at]gmail[dot]com)

2018

- Overseeing provision of Cyber Security systems and services for Armed Forces and Government
- International Cyber services RFP preparation and proposals evaluation
- SISO CBML and C2SIM Product Development Group member, 2010 - Present
 - Participating in the development of a new standard interoperability language between C2 systems and simulation and modulation technologies following IEEE and SISO standards
- Jordan National Committee for Information Security at MoICT (Products: National Security Policies and CERT Project), 2006-2008.
- Jordan Armed Forces computerization project, 2001-2002.

Professional Development and Training

- Palo Alto, Cybersecurity Prevention and Countermeasures (CPC), Amman, Jordan
- Pathway in Forensic Computing Capacity Building, University of Cagliari, Italy
- Pathway in Forensic Computing Capacity Building, Middlesex University, London, UK
- BAE Systems Cyber Bootcamp for Managers, JAF, Amman, Jordan
- Online Training Techniques and Virtual Classroom Admin, PSUT, Amman, Jordan
- Certified Information Systems Manager (CISM), New Horizons, Amman, Jordan
- Information Security awareness & workshop, Ministry of ICT, Amman, Jordan
- MCSE, eGov program, Royal Scientific Society, Amman, Jordan
- Computer Networks, Arab Academy for finance, Amman, Jordan
- Oracle Database development, CEB, RJAF, Amman, Jordan
- Microsoft Access database, University of Jordan, Amman, Jordan.
- Sun Solaris Unix, STS, Amman, Jordan
- Linux Operating System, RJAF, Amman, Jordan.
- Lotus Notes and Domino server, CEB, IBM, Amman, Jordan
- ERP (MRO-Visaer) and BI (Cognos Impromptu), JAC, Amman, Jordan

Certificates

- CISSP, CISM, ECIH, CHFI (In progress)
- Microsoft Certified Professional (MCP)
- Palo Alto Security Analyst

Awards

- GMU Center for Secure Information System Graduate Research Assistantship
- GMU Computer Science – C4I Center Graduate Research Assistantship
- GMU School of IT and Engineering fellowship
- Fulbright Scholarship
- Royal Jordanian Air Force Masters Scholarship to the Naval Postgraduate School (NPS).
- Royal Jordanian Air Force Technical and Managerial Competence Medal.
- Royal award for top of class in Computer Science
- Mu'tah University-College of Science Board of Honor.
- Mu'tah University Board of Honor.

Dr. Mohammad Ababneh

Telephone: +96265359949 Ex: 5342

E-mail: [m\[dot\]lababneh\[at\]psutf\[dot\]leduf\[dot\]jo](mailto:m[dot]lababneh[at]psutf[dot]leduf[dot]jo), [mababneh\[at\]gmail\[dot\]com](mailto:mababneh[at]gmail[dot]com)

Languages

- English: Fluent
- Arabic: Native

Publications:

1. Ayat Droos, Aws Al-Mahadeen, Tasnim Al-Harasis, Rama Al-Attar and **Mohammad Ababneh**, "Android Malware Detection Using Machine Learning," 2022 13th International Conference on Information and Communication Systems (ICICS), June 21-23, 2022, pp. 36-41, doi: 10.1109/ICICS55353.2022.9811130.
2. Ammar Elhassan, Mohammad Al-Fawa'reh, Mousa Tayseer Jafar, **Mohammad Ababneh**, Shifaa Tayseer Jafar, "DFT-MF: Enhanced deepfake detection using mouth movement and transfer learning", SoftwareX, Volume 19, 2022, 101115, ISSN 2352-7110, <https://doi.org/10.1016/j.softx.2022.101115>.
3. Malik Qasaimeh, Raad S. Al-Qassas and **Mohammad Ababneh**, "Software Design and Experimental Evaluation of a Reduced AES for IoT Applications", Future Internet Journal, Volume 13, Issue 11, 2021.
4. Rahmeh Fawaz Ibrahim, Aseel Mohammad Elian, **Mohammad Ababneh**, "Illicit Account Detection in the Ethereum Blockchain Using Machine Learning", The 10th International Conference on Information Technology (ICIT 2021), Amman, Jordan, 14-15th July 2021.
5. Malak Al-Mashagbah, **Mohammad Ababneh**, "Tor Detection using a Machine Learning Approach Using Correlation based Feature Selection with Best First and Random Forest", The 10th International Conference on Information Technology (ICIT 2021), Amman, Jordan, 14-15th July 2021.
6. Mohammed Abutaha, **Mohammad Ababneh**, Sherenaz Al-Haj Baddar, Khaled Mahmoud, "URL Phishing Detection using Machine Learning Techniques based on URLs Lexical Analysis", the 12th International Conference on Information and Communication Systems (ICICS 2021), Valencia - Spain, 24-26 May 2021.
7. Ahmed Hambouz, Yousef Shaheen, **Mohammad Ababneh**, "An Internet of Things (IoT) Forensics Model Using Third-Party Logs-Vault", International Conference on Data Science, E-learning and Information Systems, Petra, Jordan, 5-7 April, 2021.
8. Abdalrahman Hwojj, Ashhar Khamaiseh, **Mohammad Ababneh**, "SIEM Architecture for the Internet of Things and Smart City", International Conference on Data Science, E-learning and Information Systems, Petra, Jordan, 5-7 April, 2021.
9. Mousa Tayseer Jafar, **Mohammad Ababneh**, Mohammad Al-Zoube, Ammar Elhassan, "Digital Forensics and Analysis of Deepfake Videos", ICICS2020, Jordan University of Science and Technology, Irbid, Jordan, April 2020.
10. Rabia Malkawe, Malik Qasaimeh, Firas Alghanim, **Mohammad Ababneh**, "Toward an Early Assessment for Ransomware Attack Vulnerabilities ", International Conference on Data Science, E-learning and Information Systems, 2019.
11. Ashraf Karaymeh, **Mohammad Ababneh**, Malik Qasaimeh, Mustafa Al-Fayyoubi, "Enhancing Data Protection Provided by VPN Connections over Open WiFi Networks, ICTCS2019, Amman, Jordan, 2019.
12. **Mohammad Ababneh**, Duminda Wijesekera, Paulo C.G. Costa, Malik Qasaimeh "Performance of Generating Dialogs from Ontology and Context", The 15th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2018), Aqaba, Jordan, October 28th to November 1st, 2018.
13. **Mohammad Ababneh**, An Automated Dialog System for Conducting Security Interviews

Dr. Mohammad Ababneh

Telephone: +96265359949 Ex: 5342

E-mail: [m\[dot\]lababneh\[at\]psutf\[dot\]ledu\[dot\]jo](mailto:m[dot]lababneh[at]psutf[dot]ledu[dot]jo), [mababneh\[at\]gmail\[dot\]com](mailto:mababneh[at]gmail[dot]com)

for Access Control, **Book Chapter** Critical Infrastructure Protection Book, Springer, ISBN 978-3-662-45354-4, 2014.

14. **Mohammad Ababneh**, Malek Athamnah, Duminda Wijesekera, Paulo C.G. Costa, “An Automated Dialog System for Border Control”, Eighth Annual IFIP WG 11.10 International Conference on Critical Infrastructure Protection, SRI International, Arlington, Virginia, USA, March 17–19, 2014.
15. **Mohammad Ababneh**, Duminda Wijesekera, “An Ontological Inference Driven IVR System”, The 8th International Conference on Semantic Technologies for Intelligence, Defense, and Security (STIDS 2013), Fairfax, VA, November 12-15, 2013.
16. **Mohammad Ababneh**, Duminda Wijesekera, “Dynamically Generating Policy Compliant Dialogues for Physical Access Control”, CENTERIS2013-Conference on Enterprise Information Systems – aligning technology, organizations and people, Lisbon, Portugal. October 23-25, 2013.
17. **Mohammad Ababneh**, Duminda Wijesekera, James. B., Michael, “A Policy-based Dialogue System for Physical Access Control”, The 7th International Conference on Semantic Technologies for Intelligence, Defense, and Security (STIDS 2012), Fairfax, VA, October 24-25, 2012.
18. J. Mark Pullen, **Mohammad Ababneh**, Lisa Nicklas, Michael Connor and Alexandre Barreto, “An Open Source MSDL/C-BML Interface to VR-Forces”, IEEE Fall Simulation Interoperability Workshop, Orlando, FL, September 10-14, 2012.
19. J. Mark Pullen, **Mohammad Ababneh**, Richard Brown, “Testing a NATO OPOD Schema with C-BML”, 2011 EURO SISO/SCS Conference, The Hague, Netherlands, June 27-30, 2011.
20. **Mohammad Ababneh** and J. Mark Pullen, “An Open-Source Graphical User Interface Surrogate C2 System for Battle Management Language Experimentation”, 16th CCRTS-Collective C2 in Multinational Civil-Military Operations”, Québec City, Québec, Canada, June 21–23, 2011. (**Nominated Best Student Paper**).
21. J. Mark Pullen, **Mohammad Ababneh**, Samuel Singapogu, Richard Brown, Verlynda Dobbs, “A NATO OPOD Capability for BML”, 2011 Spring Simulation Interoperability Workshop/Simulation Multiconference-The Society for Modeling and Simulation International (SCS), Boston, Massachusetts, April 4-8, 2011.
22. **Mohammad Ababneh** and J. Mark Pullen, “Battle Management Language – Command and Control Graphical Use Interface”, IEEE Fall Simulation Interoperability Workshop, Orlando, FL, September 20-24, 2010.
23. J. Mark Pullen, Douglas Corner, Samuel Singapogu, Bhargava Bulusu, **Mohammad Ababneh**, “Implementing a Condensed Scripting Language in the Scripted Battle Management Language Web Service”, International Simulation Multi-Conference Sponsored in conjunction with Society for Modeling and Simulation, Ottawa, Canada, July 12-14, 2010.