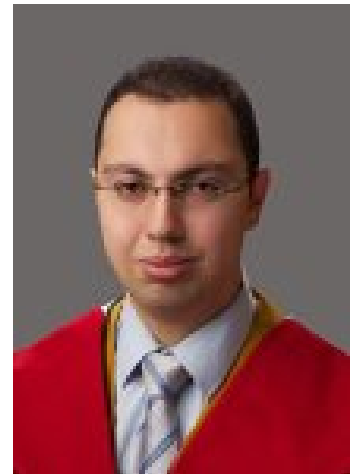


Khair Eddin M. Sabri

Associate Professor

Computer Science Department
King Abdulla II School for Information Technology
The University of Jordan
Amman, Jordan
(962-6)5355000 ext 22630
k.sabri@ju.edu.jo
<http://eacademic.ju.edu.jo/k.sabri>



Education

- **McMaster University** Hamilton, ON
PhD in Software Engineering *September 2004 – April 2010*
 - Dissertation:
“Algebraic Framework for the Verification of Confidentiality Properties”
 - Supervisor: Dr. Ridha Khedri
- **University of Jordan** Amman, Jordan
MSc. in Computer Science *September 2001 – December 2003*
 - Thesis: “Reverse Software Engineering and Reengineering to Detect Plagiarism in Java Programs”
 - Supervisor: Dr. Jubair Al-Ja’afar
- **Applied Science University** Amman, Jordan
Bsc. in Computer Science *September 1997 – June 2001*

Employment

- **University of Jordan** Amman, Jordan
Associate Professor *April 2015 – Present*
 - Courses taught: Discrete Mathematics, Theory of Computation, Computer Security, Digital Design, Software Engineering (graduate course)
- **University of Jordan** Amman, Jordan
Assistant Professor *August 2010 – April 2015*
 - Courses taught: Discrete Mathematics, C++ Programming, Advanced Programming, Theory of Computation, Computer Security, Digital Design, Computability and Complexity (graduate course)
- **McMaster University** Hamilton, ON
Teaching Assistant *September 2005 – April 2010*
 - Courses taught: Software Requirement and security consideration, Software testing, Software design (graduate course)
- **University of Jordan** Amman, Jordan
Teaching Assistant *March 2002 – August 2004*

Research Interest

I am pursuing research in theoretical and practical areas of Computer Security among which:

- Formal specification and verification of security policies.
- The analysis of information flow in multi-agent systems.
- The analysis of cryptographic-key distribution schemes.
- Cryptographic protocols specification and verification.
- Access control policies specification.

Research Experience

- Research visitor, Department of Computing and Software, McMaster University, June 2011 - August 2011.

Publications

- Hazem Hiary, Khair Eddin Sabri, Mohammed S. Mohammed and Ahlam Al-Dhamari. A Hybrid Steganography System based on LSB Matching and Replacement. *International Journal of Advanced Computer Science and Applications(IJACSA)*, 7(9): 374-380, 2016.
- Khair Eddin Sabri and Hazem Hiary. Algebraic model for handling access control policies. In *Proceedings of the 7th International Conference on Ambient Systems, Networks and Technologies (ANT 2016)*, volume 83 of *Procedia Computer Science*, pages 653–657. Elsevier, August 2016.
- Khair Eddin Sabri and Nadim Obeid. A temporal defeasible logic for handling access control policies. *Applied Intelligence*, 44(1): 30-42, 2016.
- Jason Jaskolka, Ridha Khedri and Khair Eddin Sabri. Investigative Support for Information Confidentiality. *Journal of Ambient Intelligence and Humanized Computing*, 6(4): 425-451, 2015.
- Khair Eddin Sabri. Algebraic specification and analysis of health records. *International Journal of Advanced Science and Technology*, 76 : 9-20, 2015.
- Khair Eddin Sabri. Automated verification of role-based access control polices constraints using Prover9. *International Journal of Security, Privacy and Trust Management*, 4(1): 1-10, 2015.
- Khair Eddin Sabri. Algebraic analysis of Akl and Taylor key scheme. *International Review on Computers and Software*, 9(11):2033-2042, 2014.
- Khair Eddin Sabri. Algebraic analysis of object-based key assignment schemes. *Journal of Software*, 9(8):2033-2042, 2014.
- Jason Jaskolka, Ridha Khedri, and Khair Eddin Sabri. Investigative support for information confidentiality part II: Applications in crypanalysis and digital forensics. In *Proceedings of the 9th International Conference on Future Networks and Communications*, volume 43 of *Procedia Computer Science*, pages 266–275. Elsevier, August 2014.
- Jason Jaskolka, Ridha Khedri, and Khair Eddin Sabri. Investigative support for information confidentiality part I: Detecting confidentiality information leakage via protocol-based covert channels. In *Proceedings of the 9th International Conference on Future Networks and Communications*, volume 43 of *Procedia Computer Science*, pages 276–285. Elsevier, August 2014.

- Ridha Khedri, Fei Chiang and Khair Eddin Sabri. An algebraic approach towards data cleaning. In *4th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN-2013)*, volume 21 of *Procedia Computer Science*, pages 50–59. Elsevier, 2013.
- Khair Eddin Sabri and Ridha Khedri. A generic algebraic model for the analysis of cryptographic-key assignment schemes. In *Proceedings of the 5th International Symposium on Foundations and Practice of Security*, volume 7743 of *Lecture Notes in Computer Science*, pages 62–77. Springer-Verlag Berlin Heidelberg, October 2012.
- Khair Eddin Sabri and Ridha Khedri. Algebraic framework for the specification and analysis of cryptographic-key distribution. *Fundamenta Informaticae*, 112(4):305-335, 2011.
- Jason Jaskolka, Ridha Khedri and Khair Eddin Sabri. A formal test for detecting information leakage via covert channels. In *Proceedings of the 7th Cyber Security and Information Intelligence Research Workshop, CSIIRW 2011*, ACM, 2011.
- Jason Jaskolka, Ridha Khedri, and Khair Eddin Sabri. Information leakage via protocol-based covert channels: Detection, automation, and applications. Technical Report CAS-11-05-RK, department of Computing and Software, Faculty of Engineering, McMaster University, Hamilton, ON, Canada, January 2011. <http://www.cas.mcmaster.ca/cas/0template1.php?601>.
- Khair Eddin Sabri and Ridha Khedri. Algebraic framework for the analysis of information security. In *Proceedings of the 6th International Computing Conference in Arabic (ICCA)*, 2010. (in Arabic).
- Khair Eddin Sabri, Ridha Khedri, and Jason Jaskolka. Verification of information flow in agent-based systems. In G. Babin, P. Kropf, and M. Weiss, editors, *Proceedings of the 4th MCETECH Conference on e-Technologies*, volume 26 of *Lecture Notes in Business Information Processing*, pages 252–266. Springer-Verlag Berlin Heidelberg, May 2009. (**Nominated for Best Paper Award**).
- Khair Eddin Sabri, Ridha Khedri, and Jason Jaskolka. Specification of agent explicit knowledge in cryptographic protocols. *International Journal of Computer Science*, 4(2):122–129, 2009.
- Khair Eddin Sabri, Ridha Khedri, and Jason Jaskolka. *Advanced Technologies*, Chapter 13: Algebraic Model for Agent Explicit Knowledge in Multi-agent Systems, pages 225–250. IN-TECH, October 2009.
- Khair Eddin Sabri, Ridha Khedri, and Jason Jaskolka. Automated verification of information flow in agent-based systems. Technical Report CAS-09-01-RK, department of Computing and Software, Faculty of Engineering, McMaster University, Hamilton, ON, Canada, January 2009. <http://www.cas.mcmaster.ca/cas/0template1.php?601>.
- Khair Eddin Sabri, Ridha Khedri, and Jason Jaskolka. Specification of agent explicit knowledge in cryptographic protocols. In *Proceedings of the International Conference on Computer, Electrical, and Systems Science, and Engineering (CESSE 2008)*, volume 35. World Academy of Science, Engineering and Technology, October 2008. (This paper is also published as a journal paper).
- Ahmad Sharieh and Khair Eddin Sabri. Parallel graph colouring based on saturated degree ordering. *ABHATH AL-YARMOUK: “Basic Science & Engineering”*, 17(2):489–503, 2008.
- Khair Eddin Sabri and Ridha Khedri. Agent explicit knowledge: Survey of the literature and elements of a suitable representation. In *Proceedings of the 2nd Workshop on Practice and Theory of IT Security (PTITS 2008)*, pages 4–9, 2008.
- Khair Eddin Sabri and Ridha Khedri. A mathematical framework to capture agent explicit knowledge in cryptographic protocols. Technical Report CAS-07-04-RK, department of Computing

and Software, Faculty of Engineering, McMaster University, October 2007.
<http://www.cas.mcmaster.ca/cas/0template1.php?601>.

- Khair Eddin Sabri and Ridha Khedri. Multi-view framework for the analysis of cryptographic protocols. Technical Report CAS-07-06-RK, department of Computing and Software, Faculty of Engineering, McMaster University, Hamilton, ON, Canada, November 2007.
- Khair Eddin Sabri and Ridha Khedri. A multi-view approach for the analysis of cryptographic protocols. In *Proceedings of the Workshop on Practice and Theory of IT Security (PTITS 2006)*, pages 21–27, 2006.
- Hussein Al-Omari and Khair Eddin Sabri. New graph coloring algorithms. *American Journal of Mathematics and Statistics*, 2(4), 2006.
- Khair Eddin Sabri and Jubair Al-Ja'afar. The JK system to detect plagiarism. *Journal of Computer Science & Technology*, 6(2):66–72, October 2006.
- Jubair Al-Ja'afar and Khair Eddin Sabri. Automark++: A case tool to automatically mark student java programs. *The International Arab Journal of Information Technology*, 2(1):87–96, January 2005.
- Jubair Al-Ja'afar and Khair Eddin Sabri. Chidamber-Kemerer (CK) and Lorenze-Kidd (LK) metrics to assess java programs. In *International Workshop on Software System (IWSS'04)*, 2004.
- Jubair Al-Ja'afar and Khair Eddin Sabri. Metrics for Object Oriented Design (MOOD) to assess java programs. In *International Arab Conference on Information Technology (ACIT'04)*, 2004.
- Ahmed Al-Jaber and Khair Eddin Sabri. Data hiding in a binary image. In *Proceedings of the Mediterranean Conference on Modeling and Simulation MCMS'03*, volume 4 of *Lectures on Modeling and Simulation*, pages 10–17, June 2003.
- Ahmed Al-Jaber and Khair Eddin Sabri. Information hiding without changing the cover image. In *International Conference on Information Technology and Natural Science (ICITNS 2003)*, May 2003.
- Ahmed Al-Jaber and Khair Eddin Sabri. A secure and invisible data hiding in a gray-scale image. In *Proceedings of the 7th WSEAS International Conference on Computers*, pages 167–171, 2003.

PhD Theses Supervised

- Huda Saadeh (co-supervisor with Dr. Wesam Almobaideen) (2016-present), IoT adaptive multi-layer privacy in information centric network.

M.Sc. Theses Supervised

- Nafea Alswaier (2016-present), Formal modeling of role hierarchy and delegation constraints in role based access control policies.
- Mohammad Mesbah Qbea'h (co-supervisor with Dr. Mohammad Alshraideh)(2015-2016), Detecting SQL injection attacks: a formal approach.
- Yousef Khairat (2015-2016), Role-based access control policy testing based on cause-effect graph.
- Mahmoud Shtayyat (2014-2016), Trust and risk based access control model for cloud Computing environment
- Nafea Kharabsheh (co-supervisor with Dr. Saher Manaseer)(2014-2015), Clustering-based broadcasting in ad hoc networks.

- Eman Beno (co-supervisor with Dr. Saher Manaseer)(2014-2015), The effect of network transmission history on backoff algorithms for mobile ad hoc networks.

M.Sc. Theses Examination Committees

- Mohammed Al-Mbaideen (2016), Power-aware multi-path routing protocol for wireless sensor network.
- Ayman Refoa (2016), The relation between thieves fingerprint minutiae and the criminal attributes.
- Shireen Riady (2016), Enhancing the performance of detecting phishing website rate.
- Asmaa Alsarhan (2016), Security phishing detection using DOM-Tree Structure and cAnt-MinerPB algorithm.
- Sarah Khader (2015), Utilizing business process models to generate software test cases.
- Huthaifa Al-Adaileh (2014), Off-line cursive signature verification based on image processing and geometric features.
- Amenah Qousini (2014), Role-based access control model for privacy preservation in clude computing environment.
- Aisha Al-Fitouri (2013), Character recognition using character segmentation.
- Katrina Sundus (2013), Mobility effect on broadcast authentication for wireless sensor networks.
- Boran Mohammed (2013), Security phishing detection using induction (PRISM) data mining.

Supervised Graduation Projects of Undergraduate Students

- Smart baby cradle (Funded)
- Development of a 2D educational compute game
- Students grades systems
- GPS Traffic Track APP
- Travel to Jordan App
- Home security system
- Image recognition of numbers in mobile cards
- Practicing Al-Hajj
- Holy land tour guide
- Clause slicing tool
- Academic network
- Encryption tool

Professional Activities

- Program Committee: The 8th International Conference on Ambient Systems, Networks and Technologies (ANT 2017)
- Reviewer: 11th International Conference on Global Security, Safety & Sustainability (ICGS3 2017)

- Technical Chair: Cybersecurity and Cyberforensics Conference (CCC 2016)
- Program Committee: The 7th International Conference on Ambient Systems, Networks and Technologies (ANT 2016)
- Reviewer: Iranica Journal
- Program Committee: The 7th International Conference on Computer Science and Information Technology (CSIT 2016)
- Program Committee: The Eighth International Conference on Emerging Network Intelligence (EMERGING 2016)
- Program Committee: The Sixth International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2016)
- Program Committee: The Seventh International Conference on Emerging Network Intelligence (EMERGING 2015)
- Evaluating Grant Proposals: The University of Jordan, Jordan
- Evaluating Grant Proposals: Umm Al-Qura University, Saudi Arabia
- Program Committee: The Fifth International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2015)
- Reviewer: The 19th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2015
- Program Committee: The 5th International Conference on Ambient Systems, Networks and Technologies (ANT 2014)
- Program Committee: The Sixth International Conference on Emerging Network Intelligence (EMERGING 2014)
- Program Committee: The Fourth International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2014)
- Program Committee: International Conference on Communication and Network (ICCN 2014).
- Reviewer: the 12th Workshop on Discrete Event Systems (WODES 2014)
- Track Chair: Systems Security and Privacy track for the 4th International Conference on Ambient Systems, Networks and Technologies (ANT 2013)
- Program Committee: The Third International Conference on Ambient Computing, Applications, Services and Technologies (AMBIENT 2013)
- Program Committee: The 5th International Conference on Computer Science and Information Technology (CSIT 2013)
- Reviewer: International Journal of Software Engineering and Knowledge Engineering
- Program Committee: International Workshop on Software Engineering for sAFety-critical Systems and Medical dEvices (SEASAME 2013)
- Program Committee: The 3rd International Conference on Ambient Systems, Networks and Technologies (ANT 2012)
- Program Committee: The International Arab Conference of e-Technology (IACe-T 2012)

- Reviewer: The 7th International Computing Conference in Arabic (ICCA 2011)
- Reviewer: The 6th International Computing Conference in Arabic (ICCA 2010)
- Reviewer: The 7th International Conference on Software Engineering and Formal Methods (SEFM 2009)
- Reviewer: The 9th Workshop on Discrete Event Systems (WODES 2008)
- Reviewer: The 2nd Workshop on Practice and Theory of IT Security (PTITS 2008)
- Reviewer: The 1st Workshop on Practice and Theory of IT Security (PTITS 2006)
- Reviewer: The 8th Workshop on Discrete Event Systems (WODES 2006)

Academic Membership at The University of Jordan

- Member of the Quality Assurance and ABET Committee
- Member of the ISO Committee
- Member of the Strategic Planning Committee
- Member of the Curriculum Planning Committee
- Member of the Quality Assurance of the Automated Exam Committee
- Member of the e-Learning Committee
- Member of the Student Training Committee
- Member of the Student Advisory Committee

Membership of Professional Organisations

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronic Engineers (IEEE)
- Formal Requirements and Information Security Enhancements (FRAISE) Research Group
- The Jordan Information Security & Digital Forensics (JISDF) Research Group.
- Jordan Computer Society (JCS)
- Jordan Society for Scientific Research (JSSR)

Training Courses Completed

- ISO 9001:2015 Internal Auditor, Lloyd's Register LRQA, 2016
- ISO 9001:2015 Awareness & Documentation Training Course, Lloyd's Register LRQA, 2015
- Improving the Teaching Effectiveness of the New Faculty Members, The University of Jordan, 2012
- Effective Teaching Communication and English Pronunciation, McMaster University, 2005

Work Load - The University of Jordan

Fall Semester, Total of (17) Credit Hours.

- Teaching: 15 Credit Hours (5 Courses)
- Thesis Supervision: 2 Credit Hours (3 Students)

Spring Semester, Total of (17) Credit Hours.

- Teaching: 15 Credit Hours (5 Courses)
- Thesis Supervision: 2 Credit Hours (3 Students)

Summer Semester, Total of (6) Credit Hours.

- Teaching: 6 Credit Hours (2 Courses)

Languages

- Arabic: Excellent
- English: Excellent