

EMAD E. ABDALLAH, PhD

Department of Computer Information System
Faculty of Prince Al Hussein Bin Abdullah II
Hashemite University (HU)
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RESEARCH INTERESTS

Multimedia Security, Data Privacy, Networks, Digital Forensics, Cyber Security, Database constraints, and Patter Recognition.

QUALIFICATIONS

- **Academic Expertise:**
 - Strong foundation in computer science theory with over a decade of university-level teaching experience.
 - Extensive expertise in scientific research and software development.
- **Program Development and Leadership:**
 - Led the development of academic programs at undergraduate and graduate levels.
 - Co-founder of the Cybersecurity Master's Program, overseeing curriculum design, administration, and research initiatives.
 - Directed the preparation of faculty files for the Jordan National Qualifications Framework.
- **Accreditation Leadership:**
 - Served as Chairperson of the IT College ABET Accreditation Committee at The Hashemite University, leading the accreditation process for the Computer Information Systems (B.Sc.) program and securing accreditation. Successfully secured accreditation from the Computing Accreditation Commission for the 2019–2020 cycle.
- **Core Skills:**
 - Proven ability to deliver instruction, transfer knowledge, and manage academic departments with precision.
 - Strong problem-solving, decision-making, and leadership skills, complemented by exceptional communication abilities.
 - Demonstrated capability to work both independently and collaboratively on diverse research topics.
- **Professional Attributes:**
 - Highly organized, results-driven, motivated, and committed to upholding professional standards.

EDUCATION

Sept. 2004 –April. 2008 **Ph.D. of Computer Science** Department of Computer Science and Software Engineering Concordia University, Montreal, Quebec,
www.concordia.ca

Thesis Title: Robust Digital Watermarking Techniques for Multimedia Protection. --- Nominated for “Best Dissertation Award”.
Thesis advisor: Professor: Prabir Bhattacharya and Professor A. Ben Hamza

- Sept. 2001 –Jun. 2003 **Master of Computer Science** Department of Computer Science,
University of Jordan, Jordan www.ju.edu.jo
Course work Master
- Sept. 1996 –Jun. 2000 **Bachelor of Computer Science** Department of Computer Science,
Yarmouk University, Jordan www.yu.edu.jo

WORK EXPERIENCE

- June 2020 **Full Professor-** Department of Computer Information Systems, Hashemite University, Jordan.
- Sept 2013 – Sept 2015 **Vice Dean** - Prince Al-Hussein Bin Abdullah II Faculty for Information Technology, Hashemite University, Jordan.
- Oct.2014 – June 2020 **Associate Professor-** Department of Computer Information Systems, Hashemite University, Jordan.
- July 2009 – Oct. 2014 **Assistant Professor** - Department of Computer Information Systems, Hashemite University, Jordan.
- Sep. 2009 – Sep. 2010 **Chairman**, Software Engineering Department, Hashemite University, Jordan
- Feb. 2008 – June 2009 **Software Developer – SAP Labs, Montreal**
- Customer relationship management (CRM) development team.
 - Developing a real-time customer insights system including social media.
 - Participating in developing a system to take advantage of in-memory analytics, predictive capabilities, mobile, and more.
 - System Analyst and developer of a social service system.
 - UI components
 - Technology: ABAP and JAVA
- Sept. 2004 – June. 2008 **Research Assistant**
- Multimedia Security lab, Concordia University, Montreal.
 - Investigating problems in multimedia watermarking and developing new watermarking schemes.
 - Designing and implementing MatLab simulation tools for 2D Images, 3D models, and MPEG Videos.
- Sept. 2004 – Jan. 2008 **Instructor/ Teaching Assistant**
Concordia University, Dept. of Computer Science and Software Engineering. Preparing and conducting tutorials for the following courses:
- Data Structures and Algorithms
 - Fundamentals of C++ Programming
 - Programming Methodology (JAVA)
 - Theoretical Computer Science
 - Databases
 - Discrete Structures and Formal Languages
- July 2003 – Aug. 2004 **Lecturer**
Hashemite University, Dept. of Computer Science, Jordan
Taught the following courses:
- Data Structures and Algorithms

- OOP 1 (C++) and OOP 2 (JAVA)
 - Discrete Mathematics.
- Sept. 2000 – Aug. 2001 **Laboratory Technician**
Yarmouk University, Dept. of Computer Science, Jordan.
- Hardware, software, and operating systems installations.
 - Assisted students and faculty members by providing hardware and software support in a laboratory setting.
 - Advised students on their programming problems.

ACADEMIC AWARDS AND HONORS

- Sept. 2004 – Sept. 2007 Ministry of Education- Jordan, (Ranked second among all the candidates)
Ph.D. Full Scholarship.
- Sept. 2006 – Aug. 2007 Concordia University- Canada, International Tuition Fee Remission Award
three terms.
- April 2008 Concordia University- Nominated for “Best Dissertation Award”.
- Sept. 2005 – Aug. 2007 Concordia University- Teaching & Research Assistant Scholarship
- Sept. 2001- June 2003 Ministry of Education -Jordan, M.Sc. Full Scholarship.
- Sept. 2001- June 2003 University of Jordan- Teaching Assistant Scholarship.
- May 1997 –Jan. 1998 Dean’s Honor List, Yarmouk University, Jordan.

LEADERSHIP ACTIVITIES

Sept 2017- August 2020	Chairperson of the IT College ABET accreditation Committee. COMPUTING ACCREDITATION COMMISSION Summary of Accreditation Actions 2019–2020 Accreditation Cycle The Hashemite University Zarqa, Jordan Computer Information Systems (B.Sc. in Computer Information Systems) Accredit to September 30, 2026.
Sept 2013 – Sep. 2015	Vice Dean of Prince Al-Hussein Bin Abdullah II Faculty for Information Technology, Hashemite University.
Sept. 2009 – Sep. 2010	Chairperson, Software Engineering Department Hashemite University.
Sept. 2009 – Sept. 2012	Supervisor of the HU .Net Club.
Sept. 2008- Sep. 2009	Member of the Graduate Student Association (GSA), Concordia University, Montreal, Canada. <ul style="list-style-type: none"> • Attending the faculty executive meetings. • Co-organizing the GSA general assembly to vote/or strike. • Co-organizing the poster competition for the ENCS graduate students.
Sept. 2006 – May. 2009	VP of Engineering and Computer Science Graduate Association, Concordia University, Montreal, Canada. <ul style="list-style-type: none"> • Coordinate all ECSGA activities occurring with the engineering departments including the social and scientific activities. • Promote the educational, social, recreational, and cultural interests of ECSGA members.

	<ul style="list-style-type: none"> • Attending the faculty executive committee. • Present an annual report of the ECSGA financial statement.
Jan. 2002 – Jan. 2003	Computer Science Department representative, University of Jordan <ul style="list-style-type: none"> • Attending the department executive meetings. • Coordinate several social and scientific activities. • Organizing a campaign against the tuition increase.

PROFESSIONAL MEMBERSHIP, TECHNICAL COMMITTEES, PEER REVIEWER

- Judge at the FIRST LEGO League (FLL 2017) HYDRO DYNAMICS, Jubilee Center for Excellence in Education, Amman, Jordan. (2018)
- IEEE Member.
- Member and trainer of ACM Programming Contest, Jordanian Collegiate Programming. Part of the International Collegiate Programming Contest <http://icpc.baylor.edu/>
- Microsoft Academic Partner – The Hashemite University.
- Technical/Scientific committee and/or peer reviewer for the following conferences:
 - The 5th conference on Communication Engineering and Computer Sciences, University of Kurdistan, Erbil, April, 2024.
 - The First International Conference on Artificial Intelligence in Higher Education and Community Service, September, 2024.
 - IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, Jordan, 2011.
 - IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, Jordan, 2012.
 - IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, Jordan, 2013.
 - Organizing committee of the International Conference on Computer, Information, and Telecommunication Systems (CITS), Zarqa, Jordan, 2012.
 - Volunteer at ACM Graphics Interface Conference, Montreal, Canada, 2007.
 - Volunteer at the International Conference on Image Analysis and Recognition, Montreal, Canada, 2008.
- Regular Reviewer for the following journals:
 - Journal of Electronic Imaging.
 - International Journal of Pattern Recognition and Artificial Intelligence.
 - Journal on Internet of Things
 - Journal of Systems and Software.
 - The International Arab Journal of Information Technology.
 - Journal of Pattern Recognition Research.
 - International Journal of Network Security.

CONFERENCES PRESENTATIONS, WORKSHOPS, AND SEMINARS

- The 18th International Conference on Pattern Recognition (ICPR 2006), Hong Kong, **Author**.
- The 33th ACM Graphics Interface conference (GI 2007), Montreal, Canada, **Author and Session Chair**.
- The 13th Workshop on Selected Areas in Cryptography (SAC 2006), Montreal, Canada, **Volunteer and Attendant**.
- The Fourth International Conference on Image Analysis and Recognition (ICIAR 2007), Springer Lecture Note Series in Computer Science (LNCS), Montreal, Canada, **Author**.

- The International Conference on Signal Processing and Communications (ICSPC 2007), Dubai, UAE, **Author**.
- The Fifth International Conference on Image Analysis and Recognition (ICIAR 2008), Springer Lecture Note Series in Computer Science (LNCS), Porto, Portugal, **Author**.
- The CIISE Information Systems Security Colloquium (2009), Montreal, Canada, **Volunteer and Attendant**.
- The 3rd International Conference on Communications, Computers and Applications (MIC-CCA 2009), Amman, Jordan - **Attendant**.
- Training Workshop on Writing Research Projects Proposals (2010), Hashemite University, Zarqa, Jordan, **Attendant**.
- The International Conference on Computer and Software Engineering (ICCSE 2012), Madrid, Spain, **Author and Session Chair**.
- The International Conference on Information Technology (ICIT 2012), Madrid, Spain, **Attendant**.
- The International Conference on Computer, Information, and Telecommunication Systems (CITS 2012), Zarqa, Jordan, **Organizing committee and Attendant**.
- The IEEE Conference on Applied Electrical Engineering and Computing Technologies (AEECT 2012), Amman, Jordan, **Attendant**.
- The IEEE Conference on Applied Electrical Engineering and Computing Technologies (AEECT 2013), Amman, Jordan, **Author**.
- Modernizing Undergraduate Renewable Energies Education –Academic Visit – Technische Universität Berlin, Germany, June (2014), **Attendant**.
- The International Conference on Web and Information Technologies on November (ICWIT 2014), Venice- Italy, Nov (2014), **Author**.
- The 11th International Conference on Future Networks and Communications (FNC 2016), Montreal-Canada, August 2016. **Author**.
- The 11th International Conference on Ambient Systems, Networks and Technologies (ANT), pp. 563- 570, Warsaw-Poland, April 2020. **Author**.
- IEEE Symposium Series on Computational Intelligence (SSCI) December 1-4, 2020 Canberra, Australia. **Reviewer**.
- The 5th conference on Communication Engineering and Computer Sciences, University of Kurdistan, Erbil, April, 2024. **Keynote Speaker**
- The First International Conference on Artificial Intelligence in Higher Education and Community Service, September, 2024. **Keynote Speaker**.

COMMITTEES and SERVICES

Concordia University

- Member of the Graduate Student Association (GSA), Concordia University, Canada (2008-2009).
- Member of the Engineering and Computer Science Graduate Association (ECSGA) Concordia University, Canada (2006 -2009).

Hashemite University

- Chairperson for the preparation of faculty files for the Jordan National Qualifications Framework.
- Chairperson of the IT College ABET Accreditation Committee (2016-Present). Accredited to September 30, 2026.
- Chairperson International and local accreditation commission (2020- Present).
- Chairperson of the Curriculum Planning Committee Department and Faculty (2020-Present)
- Member of the hiring and promotion committee at the department. (2017-date)

- Committee Member, Council of the IT College as the chairperson of the Software Engineering Department (2009-2010-2011).
- Committee Member, Council of the IT College as the Vice Dean of the IT College (2013-2015).
- Member of the Graduation Projects Committee of the IT College (2010-2014).
- Chairperson of Examinations and Schedules Committee of the IT College (2009- 2011).
- Chairperson of the Curriculum Planning Committee of the CIS Department (2009-2013).
- Member of the Scientific Research, Conferences, Seminars, and Expositions Committee of the IT College (2010- 2012).
- Member of the Supervising Committee on Students Union's Elections of the IT College (2010-2012).
- Member of the Appointment and Promotion Committee of the CIS Department (2010-date).
- Member of Social Committee of the IT College (2009- 2010).
- Chairperson of Scientific research Committee of the IT College (2013- date).
- Member of the Equalizing Courses Committee for Transferred Students of the CIS Department (2010-2012).
- Member of the Student's Affairs Committee of the IT College (2011-2012).
- Member of the Library Committee of the IT College (2010-2011).
- Chairperson of the IT College Website Committee (2009-2015).
- Member of Bachelor of IT Degree Plan committee (2012-2016).
- Member of the Appointment and Promotion Committee of the IT College (2013 -2015).
- Member of the Students' Training Committee (2012-2015).

TEACHING (courses taught)

Undergraduate Level	Graduate Level
CS100- Introduction to Programming CS101-Principles of computer science CS115-Computer Skills (2)/Scientific IT 2101- Discrete Mathematics CS110- OOP1 CIS215-Visual Programming CS240- Theory of Computation CS250- Data Structure CIS240- Database systems SE332-Software Design CIS471-Information Systems Security Graduation Project 1, and 2 for CS, CIS, and Cybersecurity IT 250 – Introduction to Cybersecurity IT 251 – Cryptography IT 371 – Database Security IT 375 - Digital Forensics	CIS734- Cryptography CIS771- Multimedia Security CIS794- Special Topics in Cyber Security CIS730- Digital Investigation

SERVED SUPERVISORY/EXAMINING COMMITTEES

Name	Arwa Saqer
Title Program	Improving the Availability Testing for Multi-Threaded Server Applications by Automation Master of Information Security and Digital Criminology – Prince Sumaya University for Technology. (Dec. 2014 Examiner)
Name	Basem Najem Al-obaigy
Title Program	Improving the Security of Caesar Cipher by Applying Multiple Public Keys Master of Computer Science – Yarmouk University (Dec. 2014 Examiner)

Name	Firas Ghaleb Al-Serhed
Title	Scheduling of Concurrent Transactions in Broadcasting Environment
Program	Master of Computer Science – Zarqa University (Jan. 2016 Examiner)
Name	Anas Kamel Al-Far
Title	Measuring CIA For Enterprise Application Based on Error Classification
Program	Master of Information Security and Digital Criminology – Prince Sumaya University for Technology. (June. 2016 Examiner)
Name	Safaa Fawzi Hraiz
Title	Btrfs Forensic Analysis
Program	Master of Information Security and Digital Criminology – Prince Sumaya University for Technology. (Nov. 2016 Examiner)
Name	Sarah Ahmad Odeh Abo-Suailek
Title	Sentiment Analysis and Opinion Mining on Twitter Data for Arabic Language
Program	Master in Information Systems and Innovation – Hashemite University. (Dec. 2016 Supervisor)
Name	Alaa Ali Ismail Al-Nusirat
Title	Machine Learning Roles in System Improvement
Program	Master in Information Systems and Innovation – Hashemite University. (April 2017 Examiner)
Name	Jameel Ratib Alzghoul
Title	Deception Detection in Open Mining Text
Program	Master's in computer science – Al-Balqa Applied University. (May 2017 Examiner)
Name	Hadeel Ziad Ahmed Al-awaisheh
Title	Analytical Profile Index Interpreter 10S by Applying Image Processing Techniques
Program	Masters in computer science – Al-Balqa Applied University. (Feb 2018 Examiner)
Name	Khairi Blaou
Title	Towards Developing an Efficient EEG Classification Model Based on DWT
Program	Master of Computer Science – Zarqa University (March. 2018 Examiner)
Name	Noor Ahmed Alhusan
Title	A Graphical Decision Support System for the Diagnosis of Primary Headache via Machine Learning
Program	Masters in information systems and Innovation – Hashemite University (October 2018 Examiner)
Name	Abeer Al Batayneh
Title	A Scoring System for Information Security Governance Framework using Deep Learning Algorithms A Case Study on the Banking Sector
Program	Master of Science in Information Systems Security and Digital Criminology– Prince Sumaya University for Technology. (November. 2018 Examiner)
Name	Ala'a Tawfiq Shamlawi
Title	Remnant Data Analysis on Disks Offered for Donation: A Jordan Case Study 2018
Program	Master of Science in Information Systems Security and Digital Criminology– Prince Sumaya University for Technology. (December. 2018 Examiner)
Name	Mohammad Al-mamoun Saleh Al-husban
Title	Swarm Robotics and Rescue: A New Approach
Program	Master of Computer Science – Zarqa University (January. 2019 Examiner)
Name	Ruba Mohammad Haj Hamad
Title	A Scalable Quality and Testing Platform for Critical Applications in the Cloud (SQTL)
Program	Master of Science in Enterprise System Engineering – Prince Sumaya University for Technology (July. 2019 Examiner)
Name	Yousef Ahmad Mashal
Title	Automatic Detection and Identification of Minerals with Minor Difference in Birefringence using Machine learning Algorithms
Program	Master of Applied Geology – Hashemite University (Feb. 2020 Examiner)
Name	Aya Nayef Al-Jaradat
Title	Improving Keystroke Dynamics for User Authentication
Program	Master of Science in Information Systems Security and Digital Criminology. Prince Sumaya University for Technology. (May. 2020 Examiner)
Name	Bashar Husam Alshouha
Title	A Deep Learning-based model for Prediction of the Survival of Breast Cancer Patients
Program	Master of Computer Information Systems, Faculty of Information Technology, YARMOUK UNIVERSITY. (May. 2020 Examiner)
Name	Lyth Khaled Al-Shbeilat

Title Program	Using Machine Learning Algorithms for Climate Change Prediction Master of Computer Science – Zarqa University (August. 2022 Examiner)
Name	Wafa' Issam Jamil Eleisah
Title Program	Supervised Machine Learning Techniques for Intrusion Detection Masters in cyber security – Hashemite University. (August. 2022 Supervisor)
Name	Qais Ayman Al-naamneh
Title Program	Using Fuzzy Logic Interface System to identify Client Trust in Values in Cloud Market Infrastructure Master in cyber security – Hashemite University. (November. 2022 Examiner)
Name	Hiba Fayez Ahmad AbuZaid
Title Program	Supervised Machine Learning Approach for Detecting Intrusion attacks on Connected and Autonomous Vehicles Master in cyber security – Hashemite University. (January. 2023 Supervisor)
Name	Dina Abdulhakim Abulaila
Title Program	Master in cyber security – Hashemite University. (May. 2023 Examiner)
Name	Rula Sulieman Ibrahim Al-Amrat
Title Program	Machine and Deep Learning Approaches for Detecting Phishing Emails Master in cyber security – Hashemite University. (May. 2023 Co-Supervisor with Dr. Ahmad Aloqaily)
Name	Raad Mohammad fakhri bani saleem
Title Program	Clustering-based algorithm for excluding malicious users from cloud market Master in cyber security – Hashemite University. (July. 2023 Examiner)
Name	Saja Alaedin Abozaideh
Title Program	Wireless Drone Vulnerabilities Assessment and Practical Exploitation: A Security Analysis Master of Science in Information Systems Security and Digital Criminology. Prince Sumaya University for Technology. (August. 2023 Examiner)
Name	Mohammad Hamad Khalaf AL-Hammad
Title Program	New security scheme for preventing replay attack Master in cyber security – Hashemite University. (August. 2023 Examiner)
Name	Kinda Abed al Raheem Magableh
Title Program	Artificial intelligence and natural language processing for detecting fake news Master in cyber security – Hashemite University. (August. 2023 Supervisor)
Name	Rahaf Saleh Abed Al-Zyoud
Title Program	Machine Learning Approaches to Protect the Privacy of E-health Records Master in cyber security – Hashemite University. (August. 2023 Supervisor)
Name	Mohammad ali sabbahen
Title Program	Enhancing Cybersecurity with Machine Learning: A Phishing Detection Approach Master's Degree in Computer Science. Zarqa University (December. 2023 Examiner)
Name	Omar Ahmad Al tamimi
Title Program	A Novel Cyber Techniques for Detecting and Preventing Phishing Attacks Using AI Master in cyber security – Hashemite University. (January. 2024 Examiner)
Name	Raid atallah sulaiman al-marayah
Title Program	Utilizing Machine Learning Algorithms and Benford's Law for Effective Detection of IoT DDoS Attacks Master in cyber security – Hashemite University. (January. 2024 Examiner)
Name	Athari Al-Natsheh
Title Program	Deep Learning-Based Approach for Malware Detection on Android Devices Master in cyber security – Hashemite University. (May. 2024 Examiner)
Name	Noureddin Mansour
Title Program	The Implementation of Artificial Bee Colony for Hyperparameter Tuning in Network Traffic and malware detection using Machine Learning Classifier Master in cyber security – Hashemite University. (August. 2024 Examiner)
Name	Bayan Baker BaniSalman
Title Program	Building a More Secure World: The Integration of Retina and Voice Recognition in Biometric Systems Master in cyber security – Hashemite University. (December. 2024 Examiner)
Name	Ruba Mnawer Awad Ibrahim
Title Program	Fighting the Trojan Horse: A Machine Learning Approach to Enhanced Detection and System Protection in the Age of Cybercrime Master in cyber security – Hashemite University. (December. 2024 Supervisor)

APPRECIATION LETTERS

- From Hashemite University president: Sincere gratitude and appreciation for your exceptional leadership and dedication as the Chairperson of the IT College ABET Accreditation Committee. Your remarkable efforts have led to the accreditation of our program for the longest period, which is an incredible achievement.
- From Dr. Feras Hanandeh, Dean of Faculty of Prince Al Hussein Bin Abdullah II Hashemite University for his cooperation and hard work in preparing the readiness review for the CIS department seeking ABET accreditation, 2017-2018.
- From Dr. Ahmad Al-khasawneh, Dean of Faculty of Prince Al Hussein bin Abdullah II Hashemite University for cooperation and hard work, 2011, 2012, and 2013.
- From Hashemite University president for the efforts that lead to the great success of the student Council elections of Hashemite University 2010.
- From the director of eLearning Center - Certificates of Appreciation of eLearning workshop 2011.
- From Hashemite University vice president Certificates of Appreciation for my effort and hard work in organizing the Graduation Project exhibition 2009.
- From Dr. Ahmad Al-khasawneh, Dean of Faculty of Prince Al Hussein bin Abdullah II Hashemite University for my excellence in teaching.
- From Hashemite University president for my supervision on a unique graduation project that uses the latest technology to design and develop 3D game “Learn how to save valuable resources” to encourage citizens to reduce their use of natural resources 2011.
- From Dr. Ahmad Al-khasawneh, Dean of Faculty of Prince Al Hussein bin Abdullah II Hashemite University for my supervision on the graduation project “Detecting email forgery using random forests and naïve Bayes classifiers” that got accepted for publication at the International Conference on Computer and Software Engineering (ICCSE). Spain – Madrid, 2012.
- From Dr. Ahmad Al-khasawneh, Dean of Faculty of Prince Al Hussein bin Abdullah II Hashemite University for his cooperation and hard work as a vice dean, 2013-2014.

FUNDING

- 35,000.00 JD Co-applicants. Alaa E. Abdallah, Dr. Emad E. Abdallah, Dr. Mohammad Bsoul, and Dr. Ahmad Khasawneh, Deanship of Scientific Research fund- Hashemite University - (Sept. 2013 ~ Sept. 2015) Topic: **Enhanced Ant Colony Routing Algorithms for Mobile Ad-Hoc Networks.**
- 6,880 JD Co-applicants Dr. Emad E. Abdallah, Dr. Mohammad Bsoul, and Dr. Ahmad Khasawneh, Deanship of Scientific Research - Hashemite University - new researchers’ start-up program (Sept. 2010 ~ Mar. 2012) - Topic: **3-D Mesh Fingerprinting - Develop and evaluate an identification and authentication system for 3-D polygonal models.**
- 80,000 JD Co-Applicants Dr. Ahmad Khasawneh, Dr. Emad E. Abdallah, Dr. Ibrahim Obeidat, and Dr. Feras Hanandeh, Deanship of scientific Research - Hashemite University - start-up program (Dec. 2010 ~ Dec. 2012) - Topic: **The use and transfer platform of research content in teaching, learning and e-Learning in Higher Education; Effectiveness of Building an Incubator for Hashemite University Academician Usage.**

- 1,000,000 € Co-applicants, Hashemite University (Local Partner: Dr. Ahmad Al-khasawneh and Dr. Emad E. Abdallah), Princess Sumaya University for Technology, Technical University of Berlin, National University for Distance Learning, Naim Energy Technologies.(Oct. 2012 ~ 14 Oct. 2015)Topic: **"Modernizing Undergraduate Renewable Energy Education: EU Experience for Jordan"** TEMPUS project number 530332-TEMPUS-1-2012-1-JO-TEMPUS-JPCR, approved by the European Commission under grant agreement number 2012-3324/001-001.
- 800,000 € Co-applicants, Hashemite University (Local Partner: Dr. Emad E. Abdallah and Dr. Ahmad Al-khasawneh), Princess Sumaya University for Technology, American University of Madaba, University of Petra. (Dec. 2013 ~ Dec. 2016) Topic: **"Towards a university Enterprise alliance in Jordan TEJ Project"** TEMPUS project number 544259-TEMPUS, approved by the European Commission under grant agreement number 2012-3324/001-001.

PUBLICATIONS:

Books

- [1] **Emad E. Abdallah**, "**Robust Digital Watermarking Techniques for Multimedia Protection**", LAP Lambert Academic Publishing, July 2012. ISBN: 978-3659178009.

Journal Publications (refereed):

- [2] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, "**Improved image watermarking scheme using fast Hadamard and discrete wavelet transforms**," *Journal of Electronic Imaging*, vol. 16, no. 3, pp. 033020.1-033020.9, July 2007.
- [3] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, "**Watermarking 3D models using spectral mesh compression**," *Signal, Image and Video Processing, Springer Journal*, Vol. 3, no. 4, pp. 375-389, 2009.
- [4] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, "**Video watermarking using wavelet transform and tensor algebra**," *Signal, Image and Video Processing, Springer Journal*, vol. 4, no. 2, pp. 233-245, June 2010.
- [5] Mohammad Bsoul, Ahmad Al-Khasawneh, **Emad E. Abdallah**, Yousef Kilani, "**Enhanced fast spread replication strategy for data grid**," *Journal of Network and Computer Applications*, vol. 34, no. 2, pp. 575–580, March 2011.
- [6] Feras Hanandeh, **Emad E. Abdallah**, Sahar Idwan and Izzat Alsmadi, "**Checking the efficiency of integrity tests in distributed and parallel database**," *International Journal of Business Information Systems*, vol. 11, no. 2, pp. 233-245, 2012.
- [7] Alaa E. Abdallah, M. Bsoul, **Emad E. Abdallah**, Ahmad Al-Khasawneh, and Muath Alzghool, "**Local algorithm for establishing a virtual backbone in 3d ad hoc network**," *International Journal of Computer and Information Engineering*, Vol. 6, pp. 18-22, 2012.
- [8] Feras Hanandeh, **Emad E. Abdallah**, Alaa Eddien Abdallah, and Essam Al-Daoud, "**Simplified approach for generating integrity tests in distributed database systems**," *International Journal of Innovation and Learning*, vol.13, no. 4, pp. 375-387, 2013.
- [9] M. Bsoul, A. Al-Khasawneh, A. E. Abdallah, **Emad E. Abdallah**, and I. Obeidat, "**An energy-efficient threshold-based clustering protocol for wireless sensor networks**," *Journal of Wireless Personal Communications*, vol. 70, no. 1, pp. 99-112, 2013.
- [10] Essam Al-Daoud, Feras Al-Hanandeh, **Emad E. Abdallah**, and Alaa E. Abdallah, "**Texture recognition by using a non-linear kernel**," *International Journal of Computer Applications in Technology*, vol.48, no. 3, pp. 235- 240, 2013.
- [11] **Emad E. Abdallah**, Alaa E. Abdallah, Ahmad Al-Khasawneh, Mohammad Bsoul and Ayoub Alsarhan, "**Secure local algorithm for establishing a virtual backbone in 3D ad hoc network**," *International Journal of Networking and Virtual Organizations*, vol. 12, no. 1, pp.70- 83, 2013.
- [12] Ayoub Alsarhan, **Emad E. Abdallah**, Ibrahim Al-Oqily, and Alaa Eddien Abdallah, "**An Economic Model for Resource Adaptation in 2D Mesh Multicomputer Networks**," *International Journal of Computers and Their Application*, vol. 20, no. 1, pp.46- 54, 2013.
- [13] **Emad E. Abdallah**, Alaa E. Abdallah, Mohammad Bsoul, Ahmed F. Otoom, Essam Al- Daoud, "**Simplified features for email authorship identification**," *International Journal of Security and networks*, vol. 8, no. 2, pp. 72-81, 2013.

- [14] **Emad E. Abdallah**, Ibrahim Al-Oqily, Alaa E. Abdallah, Ahmed F. Ootom, Ayoub Alsarhan, **"Spectral Graph and Minimal Spanning Tree for 3D Polygonal Meshes Fingerprinting,"** *International Journal of Information Technology and Web Engineering*, Vol. 9, No. 4, pp. 41-54, 2014.
- [15] Nedal Tahat, **Emad E. Abdallah**, **"A New signing algorithm based on elliptic curve discrete logarithms and quadratic residue problems,"** *Italian Journal of Pure and Applied Mathematics*, Vol.32, pp. 125-132, 2014.
- [16] Ahmed Fawzi Ootom, **Emad E. Abdullah**, Maen Hammad, Mohammad Bsoul, Alaa E. Abdallah, **"An Intelligent System for Author Attribution Based on a Hybrid Feature Set,"** *International Journal of Advanced Intelligence Paradigms*, Vol. 6, No 4, pp. 228-245, 2014.
- [17] Alaa E. Abdallah, Mohammad Bsoul, **Emad E. Abdallah**, Ibrahim Al-Oqily, George Kao, **"Cluster-Based Online Routing Protocols for Ad Hoc Network,"** *International Journal of Information Technology and Web Engineering*, Vol. 9, No. 4, pp. 55-67, 2014.
- [18] Alaa E. Abdallah, **Emad E. Abdallah**, Mohammad Bsoul, Ahmad Al-Khasawneh and Lina Amer, **"A Blind 3D Watermarking Technique Using Spherical Coordinates and Skewness Measure,"** *International Journal of Security and networks*, Vol.10, No. 1, pp. 1-8, 2015.
- [19] Ahmed Fawzi Ootom, **Emad E. Abdallah**, Yousef Kilani, Ahmed Kefaye and Mohammad Ashour, **"Effective Diagnosis and Monitoring of Heart Disease,"** *International Journal of Software Engineering and Its Applications*, Vol. 9, No. 1, pp. 143-156, 2015.
- [20] Mohammad Bsoul, Yousef Kilani, Maen Hammad, **Emad E. Abdallah**, and Ayoub Alsarhan, **"An Index-Based Approach for Wireless Sensor Networks,"** *Journal of Wireless Personal Communications*, Vol. 82, No. 4, pp. 2185-2197, 2015.
- [21] Ahmed F. Ootom, **Emad E. Abdallah**, Maen Hammad, **"Breast Cancer Classification Comparative Performance Analysis of Image Shape-Based Features and Microarray Gene Expression Data,"** *International Journal of Bio-Science and Bio-Technology*, Vol. 7, No2, pp. 37- 46, 2015.
- [22] Alaa E. abdallah, **Emad E. Abdallah**, Feras Hanandeh, Ashraf Aljamal, Essam Al-Daoud **"Power Aware Ant Colony Routing Algorithm for Mobile Ad-hoc Networks,"** *International Journal of Software Engineering and its Applications*, Vol. 9, No, 12, pp. 197-212, 2015.
- [23] Nedal Tahat, **Emad E. Abdallah**, **"A Proxy Partially Blind Signature Approach Using Elliptic Curve Cryptosystem,"** *International Journal of Mathematics in Operational Research*, Vol. 8, No1, pp. 87-95, 2016.
- [24] Alaa Eddien Abdallah, **Emad E. Abdallah**, Mohammad Bsoul and Ahmed Ootom, **"Randomized Geographic-based Routing with Nearly Guaranteed Delivery for 3D Ad Hoc Network,"** *International Journal of Distributed Sensor Networks*, Vol. 12, No. 10, 2016.
- [25] Jamal Al-Nabulsi, Jumana Ma'touq, **Emad E. Abdallah**, Tarek Haloubi, Ali Manasra, **"Blind Users Assistive Technology Based on the Android Platform,"** *International Journal of Innovative Computing and Applications (IJICA)*, Vol.8, No.3, pp.162–171, 2017.
- [26] Ayoub Alsarhan, **Emad E. Abdallah**, Ashraf Aljamal, **"Competitive Processors Allocation in 2D Mesh Connected Multicomputer Networks a Dynamic Game Approach,"** *International Journal of Grid and High Performance Computing*, Vol.9, No.2, pp.53-69, 2017.
- [27] Nedal Tahat, **Emad E. Abdallah**, **"Hybrid Publicly Verifiable Authenticated Encryption Scheme based on Chaotic Maps and Factoring Problems,"** *Journal of Applied Security Research*, Vol. 13, No. 3, pp. 304-3014, (July, 2018).
- [28] Ahmed Fawzi Ootom, Doaa Al-Shdaifat, Maen Hammad, Emad E. Abdallah and Ashraf Aljamal, **"Automated labelling and severity prediction of software bug reports,"** *International Journal of Computational Science and Engineering*, Vol.19 No.3, pp.334 – 342, 2019.

- [29] **Emad E. Abdallah**, Sarah A. Abo-Suaileek, **"Feature-based Sentiment Analysis for Slang Arabic Text,"** *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 10, No. 4, pp. 298-304, 2019.
- [30] Nedal Tahat, Rania Shaqboua, **Emad E. Abdallah**, Mohammad Bsoul, Wasfi Shatanawi, **"A new digital signature scheme with message recovery using hybrid problems,"** *International Journal of Electrical and Computer Engineering (IJECE)*, Vol. 9, No. 5, pp. 3576-3583, 2019.
- [31] Yasser Qawasmeh, Sari Awwad, Ahmed Ootom, Feras Hanandeh, **Emad E. Abdallah**, **"Local Patterns for Offline Arabic Handwritten Recognition,"** *International Journal of Advanced Intelligence Paradigms*, Vol. 16, No. 2, pp. 203-215, 2020.
- [32] **Emad E. Abdallah**, Ahmed Ootom, Alaa E. Abdallah, Mohammad Bsoul, Sari Awwad, **"A hybrid Secure Watermarking Scheme Using Nonnegative Matrix Factorization and Fast Walsh-Hadamard Transform,"** *Journal of Applied Security Research*, Vol. 15, No. 2, pp. 185-198, 2020.
- [33] Alaa E. Abdallah, Ebaa Fayyumi, **Emad E. Abdallah**, Ahmad Qawasmeh, Islam Almalkawi, **"Spherical based routing protocols for three-dimensional MANET",** *International Journal of Computing Science and Mathematics*, Vol. 16, No. 2, pp. 125-135, 2022.
- [34] Jamil R. Alzghoul, Muath Alzghool, **Emad E. Abdallah**, **"A New Approach for Deception Detection in Open Domain Text,"** *International Journal of Business Analytics*, Vol. 8, No. 4, pp. 1-13, 2021.
- [35] Islam T. Almalkawi, Jafar Raed, Ayoub Alsarhan, Alaa E. Abdallah, **Emad E. Abdallah**, **"A Novel and Efficient Priority-based Cross-layer Contextual Unobservability Scheme against Global Attacks for WMSNs,"** *International Journal of Interactive Mobile Technologies*, Vol. 15, No. 30, pp. 43-69, 2021.
- [36] Alaa E. Abdallah, **Emad E. Abdallah**, Islam Almalkawi, Salah Taamneh, Ayoub Alsarhan, **"Energy-efficient location-based routing algorithms for three-dimensional mobile ad hoc networks"** *J. Math. Computer. Sci.*, Vol. 11, no. 3, pp. 3418-3435, 2021.
- [37] JR Alzghoul, **Emad E. Abdallah**, AS Al-khawaldeh, **"Fraud in Online Classified Ads: Strategies, Risks, and Detection Methods: A Survey,"** *Journal of Applied Security Research*, Vol. 19, no. 1, pp 45-69, 2024.
- [38] Ahmad Aloqaily, **Emad E Abdallah**, Rahaf Al-Zyoud, Esraa Abu Elsoud, Malak Al-Hassan, Alaa E Abdallah, **"Deep Learning Framework for Advanced De-Identification of Protected Health Information,"** *Future Internet* , Vol. 17, no. 1, 2025.
- [39] Aloqaily, Ahmad, Emad E. Abdallah, Hiba AbuZaid, Alaa E. Abdallah, and Malak Al-hassan. **"Supervised Machine Learning for Real-Time Intrusion Attack Detection in Connected and Autonomous Vehicles: A Security Paradigm Shift."** *In Informatics*, vol. 12, no. 1, MDPI, 2025.

Conference Publications (refereed):

- [1] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, **"A robust block-based image watermarking scheme using fast Hadamard transform and singular value decomposition,"** *Proc. International Conference on Pattern Recognition (ICPR)*, pp. 673-676, Hong Kong, 2006.
- [2] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, **"Spectral graph-theoretic approach to 3D mesh watermarking,"** *Proc. ACM Graphics Interface Conference (GI)*, pp. 327-334, Montreal, Canada, 2007.

- [3] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, "**MPEG Video Watermarking Using Tensor Singular Value Decomposition**," *Proc. International Conference on Image Analysis and Recognition (ICIAR)*, pp. 772-783, Montreal, Canada, 2007. Springer Lecture Note Series in Computer Science (LNCS).
- [4] M. Ouhsain, **Emad E. Abdallah**, A. Ben Hamza, "**An image watermarking scheme based on wavelet and multiple-parameter fractional Fourier transforms**," *Proc. International Conference on Signal Processing and Communications (ICSPC)*, pp. 1375-1378, Dubai, UAE, 2007.
- [5] **Emad E. Abdallah**, A. Ben Hamza, P. Bhattacharya, "**A Robust 3D watermarking technique using eigen-decomposition and nonnegative matrix factorization**," *Proc. International Conference on Image Analysis and Recognition (ICIAR)*, pp. 253-262, Porto, Portugal, 2008. Springer Lecture Note Series in Computer Science (LNCS).
- [6] **Emad E. Abdallah**, A.F. Ootom, Arwa Saqer, Ola Abu-Aisheh, Diana Omari, and Ghadeer Salem, "**Detecting email forgery using random forests and naïve bayes classifiers**," *Proc. International Conference on Computer and Software Engineering (ICCSE)*, pp.276-280, Spain – Madrid, March, 2012.
- [7] Alaa E. Abdallah, M. Bsoul, **Emad E. Abdallah**, Ahmad Al-Khasawneh, and Muath Alzghool, "**Local algorithm for establishing a virtual backbone in 3d ad hoc network**," *Proc. International Conference on Information Technology (ICIT)*, pp. 18-22, Spain – Madrid, 2012.
- [8] **Emad E. Abdallah**, Alaa E. Abdallah, "**Normal Vectors and Spanning Tree for 3D Object Fingerprinting**," *Proc. IEEE Conference on Applied Electrical Engineering and Computing Technologies (AEECT)*, pp. ITAS-12-16, Amman – Jordan, 2013.
- [9] Alaa E. Abdallah, **Emad E. Abdallah**, "**Greedy Cylinder Routing Algorithm for Mobile Network Devices**," *Proc. IEEE Conference on Applied Electrical Engineering and Computing Technologies (AEECT)*, pp. ITAS-8-12, Amman – Jordan, 2013.
- [10] Ahmed F. Ootom, **Emad E. Abdallah**, Shifaa Jaafer, Aseel Hamdallh, Dana Amer, "**Towards Author Identification of Arabic Text Articles**," *Proc. of the 5th International Conference on Information and Communication Systems (ICICS)*, pp. 1-4, 2014.
- [11] **Emad E. Abdallah**, Alaa E. Abdallah, Bajes Y. Alskarnah, "**A blind Three-Dimensional Meshes Watermarking Using the Interquartile Range**," *Proc. International Conference on Web and Information Technologies on November (ICWIT 2014)*, pp. 329- 333, Venice- Italy, 2014.
- [12] Ahmed Ootom, Doaa Al-Shdaifat, Maen Hammad and **Emad Abdallah**, "**Severity Prediction of Software Bugs**," *Proc. The International Conference on Information and Communication Systems (ICICS 2016)*, pp. 92-95, Irbid -Jordan, 2016.
- [13] Mohammad Bsoul, **Emad E Abdallah**, Qais Saif, Ibrahim Albarghouthi, Mohammed Albeddawi, Essam Qaddurah, "**GitStud: A Web-based Application for Sharing Project Files**," *Proc. The Eleventh International Conference on Systems and Networks Communications (ICSNC 2016)*, pp. 20- 23, Rome-Italy, August 2016.
- [14] **Emad E. Abdallah**, Ebaa Fayyumi, "**Assistive Technology for Deaf People Based on Android Platform**," *The 11th International Conference on Future Networks and Communications (FNC 2016)*, pp. 295-301, Montreal-Canada, August 2016.
- [15] Ibrahim Al-Oqily, **Emad E. Abdallah**, Alaa E. Abdallah, "**Mobile Intra-Campus Student Social Network MiCSSN**," *Proc. IEEE Conference on Applied Electrical Engineering and Computing Technologies (AEECT)*, pp. 1-4, Aqaba – Jordan, 2017.
- [16] **Emad E. Abdallah**, Jamil R. Alzghoul, Muath Alzghool, "**Age and Gender prediction in Open Domain Text**," *The 11th International Conference on Ambient Systems, Networks and Technologies (ANT)*, pp. 563-570, Warsaw-Poland, April 2020.

- [17] **Emad E. Abdallah**, Wafa' Eleisah, Ahmed Fawzi Otoom, "**Intrusion Detection Systems using Supervised Machine Learning Techniques: A survey**," *The 12th International Conference on Ambient Systems, Networks and Technologies (ANT)*, pp. 205-212, Porto-Portugal, March 2022.
- [18] Ahmed Otoom, Wafaa Eleisah, Emad E. Abdallah, "**Deep Learning for Accurate Detection of Brute Force attacks on IoT Networks**," *The 13th International Conference on Ambient Systems, Networks and Technologies (ANT)*, pp.291-298, Leuven-Belgium, March 2023.
- [19] **Emad E. Abdallah**, Ahmad Aloqaily and Hiba Fayez, "**Identifying Intrusion Attempts on Connected and Autonomous Vehicles: A Survey**," *The 13th International Conference on Ambient Systems, Networks and Technologies (ANT)*, pp. 307-314, Leuven-Belgium, March 2023.
- [20] Alaa Eddien Abdallah and **Emad E. Abdallah**, "**Survey on Geographical Based Topology Control for Ad Hoc Networks**," *The 13th International Conference on Ambient Systems, Networks and Technologies (ANT)*, pp.429-435, Leuven-Belgium, March 2023.
- [21] **Emad E. Abdallah**, Esraa Abu Elsoud, Alaa E. Abdallah, "**A Survey of Data Mining Techniques for Digital Forensic Analysis**," *The 16th International Conference on Ambient Systems, Networks and Technologies (ANT)*, Patras, Greece, 2025.