

Ali Rodan, PhD, FHEA, SMIEEE

Computer Science (Artificial Intelligence, Machine learning, and Data Analytics)



Administrative Academic Experience Summary

@The University of Jordan - UoJ

- **Chair** of Artificial Intelligence Department (2023-present)
- **Director** of Computer Center (2014 - 2016).
- **Chair** of Information Technology Department (2013 – 2014).
- **Head** of the Curriculum Committee, KASIT (2013-2014).
- **Head** of Exam Auditing Committee, KASIT (2012-2014).
- **Member** of the University Council, the University of Jordan (2014 - 2015).
- **Member** of KASIT Council, Information Technology Department council (2013-2014).
- **Vice Head** of registration and academic advising committee (2013-2016).
- **Chair** of the **E-Learning Committee**, KASIT (2012-2017).
- **Chair** of the **website follow-up committee** (2014 -2016).
- **Head of ABET committee** for developing and Accreditation for a Master program in Web Intelligence in the Department of Information Technology, KASIT (2012-2013).
- **Member** of the College of Graduate Studies Council - **representative** for KASIT academic and advising issues (2012-2014).
- **Member** of the **PhD Committee**, KASIT (2013 - 2014).
- **Member** of the **Scientific research committee** KASIT (2012-2014).
- **Member** of the Committee that Automate all University of Jordan compulsory and elective courses (2015-2017).
- **Member** of the **Alumni Forum Committee**, the University of Jordan (2015-2016).
- **Member** of the **UJ monthly newsletter Committee**, the University of Jordan (2014 -2016).

@Higher Colleges of Technology - HCT

- **Program Team Leader (Information Technology)**, Al Ain Campuses, Aug. 2022.
- **Applied Research Coordinator**, Al Ain Campuses, Nov. 2020 – Aug. 2022.
- **Member** of the College Council Al Ain Women's Campus (AAW), Jan. 2019 – Sept. 2019
- **Member** of the Computer Information Sciences (CIS) Program Academic Committee (PAC), Application Development (2018 – 2020).
- **Member** of the CIS Research Committee (2018 – 2020).

@Ministry of Higher Education and Scientific Research, Jordan

- **Member** of several committees of public and private universities accreditation at the **Accreditation and Quality Assurance Commission for Higher Education Institutions (HEAC)** 2013 - present.
- **Member** of the **Technical Advisory Committee** of the Jordanian Universities Network L. L. C. (2014 – 2016).
- **Information Technology Consultant** for the project "Panorama of the Jordanian Royal Speeches, Scientific Research Fund, Ministry of higher education project **2015**.

@Others

- **Associate member** of the University of Jordan in the project "Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities", eQTeL, TEMPUS Project, European Union, **2013-2014**.
- **Associate member** of the University of Jordan in the project "Master in Health Informatics", HEAL+, Erasmus plus Project, European Union (**2015-2018**).
- **Associate member** of the University of Jordan in the project " Modernization of tEaching meThodologies in higher educatiOn: EU experience for jorDan and paleStinian territory", METHODS, Erasmus plus Project, European Union (**2016-2019**).
- **Research Associate**, the **University of Birmingham**, UK, **2011**.
- **Editor** of a **Springer Book** and an author of a number of chapters in Springer series books.
- **Member** of the committee for preparing and supervising a number of local and international conferences in the field of machine learning, data mining and electronic publishing.
- **Reviewer** in many first class JCR ISI Journals with high impact factor.

Attached Detailed CV

Ali Rodan, PhD, FHEA, SMIEEE

Personal

Address	Box 11942, Amman, Jordan	Nationality	Jordanian
Contact	Mobile : +962797335203	Emails	a.rodan@ju.edu.jo alirodan@gmail.com
Status	Married	Google Scholar Profile:	http://scholar.google.com/citations?user=n8Z3RMwAAAAJ&hl=en
		Scopus Profile:	https://www.scopus.com/authid/detail.uri?authorId=36609020600

	Google Scholar	Scopus
Citations	1526	980
h-index	15	13
10-index	21	16

Education

2008 – 2012	The University of Birmingham PhD in Computer Science (Machine Learning) <i>Thesis Title: Architectural Designs of Echo State Network.</i> <i>with Prof. Peter Tino</i>	Birmingham, UK
2004 – 2005	Oxford Brookes University Master in Computer Science (MSc.) <i>Dissertation: Secure Electronic Cash Systems using Web Service Technology</i> <i>with Prof. Catherine Hobbs</i>	Oxford, UK
2000 – 2004	Princess Sumaya University for Technology BSc degree in Computer Science <i>Project: E-Learning Tool and Online Test Examination Using ASP.Net</i> <i>with Prof. Walid Salameh</i>	Amman, Jordan

Research Interests

Data Mining and Analytics for Business Applications, Machine learning, Deep Learning and Neural Networks, and Time Series Prediction.

Employment and Experience

- **Chairman of Artificial Intelligence Department, King Abdullah II School for Information Technology, The University of Jordan, Amman, Jordan.**
2nd Sept, 2023 – present.
 - Plans, organize, implements, and evaluates the AI faculty activities.
 - Supervises academic advising services.
 - Participates in the process and coordinates the regular review of curricula of Data Science and Artificial Intelligence Programs.
 - Approves transfer of credits of courses in AI faculty.
 - Assumes memberships of the concerned college committees.

- **Associate Professor, King Abdullah II School for Information Technology, The University of Jordan, Amman, Jordan**
12th Aug, 2016 – present.
Teaching: Data Mining (BSc., Master and PhD Levels), Database Systems (BSc. and Master Levels), Business Intelligence and Big data (BSc. and Master Levels), Expert systems with neural networks and Deep learning (Master level), Machine learning (BSc., Master and PhD Levels), and Artificial Intelligence (BSc. Level).
- **Applied Research Coordinator, Higher Colleges of Technology, Al Ain, Abu Dhabi, UAE.**
2nd Nov, 2020 – Aug. 2022.
 - Identify and disseminate information regarding applied research opportunities and funding.
 - Encourage student and faculty involvement in applied research projects.
 - Ensure effective communication of Applied Research policies, guidelines, procedures, activities and results to staff and external partners.
 - Reviewing proposals prior to submission to funding agencies.
 - Oversee project progress reporting.
 - Select potential applied research activities that may generate interest and engagement with potential industry or government partners.
 - Facilitation of industry outreach related to applied research funding opportunities.
- **Associate Professor, Al Ain Women’s College, Higher Colleges of Technology, Al Ain, Abu Dhabi, UAE.**
2nd Jan, 2018 – Aug. 2022.
Teaching: Data Analytics, Advance Database Technology, Computational Thinking, Blockchain Applications and coding, Web Application Development (XHTML, CSS, JS), Web Publishing (ASP.Net), Object Oriented Programming, and Capstone Project.
Certifications:
 - Accredited Blackboard Facilitator (Train the trainer)
 - Certified Blackboard Expert 2020 (eTeacher)
 - Certified Blackboard Specialist- Excellence in Digital Teaching and Learning 2020.
 - Certified Blackboard Practitioner- Digital teaching and Learning 2020.
 - Certified Blackboard Associate- Digital teaching and Learning 2019.
 - Certified SAS Predictive Modelling 2019.
 - Certified IBM Blockchain 2019 (Instructor Award)
 - Certified IBM Blockchain Developer 2018 (Explorer Award)
 - Certified IBM Blockchain Developer 2018 (Mastery Award)
 - Tableau Expert
- **Director of Computer Center, The University of Jordan, Amman, Jordan.**
7th Sept, 2014 – 8th Augt, 2016.
 - Provision of IT infrastructure services including desktop applications, Local and/or Wide area networks, IT security and telecommunications.
 - Monitoring and managing the development and implementations of Applications software.
 - Working with senior management to propose, agree and deliver IT service to defined Service Level Agreements.
 - Support the University of Jordan staff with IT Technical support.
 - Responsible for IT hardware, software and maintenance procurement.
 - Responsible for the development and control of IT security policy.
 - Responsible for maintaining, developing and updating of the university of Jordan website.

- **Chairman of Information Technology Department, King Abdullah II School for Information Technology, The University of Jordan, Amman, Jordan.**
2nd Sept, 2013 – 4th Sept, 2014.

 - Plans, organize, implements, and evaluates the IT faculty activities.
 - Supervises academic advising services
 - Participates in the process and coordinates the regular review of curricula.
 - Approves transfer of credits of courses in IT faculty.
 - Assumes memberships of the concerned college committees.

- **Assistant Professor, King Abdullah II School for Information Technology, The University of Jordan, Amman, Jordan**
12th Aug, 2012 – 12th Aug, 2016.

Teaching: Database Systems, Object Oriented Programming, Web Application Development (XHTML, CSS, JS), Web Publishing (ASP.Net), Business Intelligence and Big data (BSc. and Master Levels), and Machine learning (Master Level).

- **Research Associate (Industrial Partnership), The Supplies Group Ltd, High Wycombe, UK.**
6th June, 2011 – 23th Dec., 2011.

I worked on a Knowledge Transfer Partnership (KTP) project "**PREDICTION OF CUSTOMER LIFETIME VALUE**". It's a joint project between the **University of Birmingham (Prof. Peter Tino)**, **The University of Warwick (Dr. Sarabjot Anand)**, and the **Supplies Group Company (CEO Noah Gresham)**.

- **Teaching Assistant, The University of Birmingham, Birmingham, UK.**
3rd Oct, 2008 – 27th June, 2012

I have been the teaching assistant for the following modules:

 - Foundations of Computer Science 1 (BSc. level) (Semester1 2008, 2009, 2010).
 - Foundations of Computer Science 2 (BSc. level) (Semester2, 2009, 2010, 2012).
 - Fundamentals: Database Technology (MSc. level) (Semester 2, 2009).
 - Information and the Web (BSc. level) (Semester 2, 2010).

- **IT Lecturer, Emirates College of Technology, Abu Dhabi, UAE**
1st Sept, 2005 – 14th July, 2008

I have been responsible of teaching the following Courses to Diploma and Undergraduate Students:

 - Object Oriented Programming (Java, C++)
 - Data and Web Mining Applications (Data Warehouse, Data Mart, Decision support Resources).
 - Relational Database Design (*Including practical work on Oracle 10g*).
 - System analysis and Design
 - Advance Web Development (XHTML 1.0, XML, DTD, CSS).
 - Computer Skills (ICDL).

- **Acting IT Coordinator, Emirates College of Technology, Abu Dhabi, UAE**
1st June, 2007 – 2nd Sept, 2007 (Summer Term).

 - Teaches IT Courses.
 - Plans, organize, implements, and evaluates the IT faculty activities.
 - Supervises academic advising services
 - Participates in the process and coordinates the regular review of curricula.
 - Approves transfer of credits of courses in IT faculty.
 - Assumes memberships of the concerned college committees.

Selected Journal Publications:

- Mohammad A Hassonah, Rizik Al-Sayyed, **Ali Rodan**, Al-Zoubi Ala'M, Ibrahim Aljarah, Hossam Faris: *An efficient hybrid filter and evolutionary wrapper approach for sentiment analysis of various topics on Twitter*. **Knowledge-Based Systems**, 2020. (c) Elsevier. (Scopus, IF:5.1)
- Duaa Elsarraj, Maha Al Qisi, **Ali Rodan**, Nadim Obeid, Ahmad Sharieh, Hossam Faris: *Demystifying echo state network with deterministic simple topologies* **International Journal of Computational Science and Engineering**, 19 (3), 407-417, 2019. Inderscience Publishers (IEL) , (Scopus, IF:1.2).
- A Sheta, N Ghatasheh, H Faris, and **A Rodan**: *Robotics Evolution: from Remote Brain to Cloud*. **International Journal of Control and Automation**, 11 (11), 29-42, 2018. (Scopus, IF:0.31).
- Maher Salem, Moayyad Mohammed, Ali Rodan: *Security Approach for In-Vehicle Networking Using Blockchain Technology*. **Advances in Internet, Data and Web Technologies**, vol 29, Springer. 2019. (Scopus)
- K. Qaddoum, I. Ahmad, Y. Javed, A. Rodan: *An Enhanced Model for Abusive Behavior Detection in Social Network*. **Advances in Internet, Data and Web Technologies**, vol 29, Springer. 2019. (Scopus)
- A Sheta, H Faris, **A Rodan**, E Kovač-Andrić, AZ Ala'M: *Cycle reservoir with regular jumps for forecasting ozone concentrations: two real cases from the east of croatia*. **Air Quality, Atmosphere & Health**, Springer, 2018. (Scopus, IF:2.662)
- **Ali Rodan**, Alaa Sheta, Hossam Faris: *Bi-directional Reservoir Networks Trained using SVM+ Privileged Information for Manufacturing Process Modeling*. **Soft Computing**, Springer, 2017. (Scopus, IF:2.367)
- M. Qasem, H. Faris, **A. Rodan A.**, A. Sheta: *Empirical Evaluation of the Cycle Reservoir with Regular Jumps for Time Series Forecasting: A Comparison Study*. **Artificial Intelligence Trends in Intelligent Systems**, vol 573. Springer. 2017. (Scopus)
- **Ali Rodan**, Hossam Faris: *Credit Risk Evaluation using Cycle Reservoir Neural Networks with Support Vector Machines Readout*. **Lecture Notes in Artificial Intelligence**, Springer -Verlag Berlin Heidelberg, 2016. (Scopus).
- **A Rodan**, A Fayyumi, H Faris, J Alsakran, O Al-Kadi: *Negative Correlation Learning for Customer Churn Prediction: A Comparison Study*. **The Scientific World Journal**, 2014, 7 pages, Hindawi. (Scopus, IF:1.219)
- H. Chen, P. Tino , **A. Rodan** and X. Yao: *Learning in the Model Space for Cognitive Fault Diagnosis*. **IEEE Transactions on Neural Networks and Learning Systems**, 25(1), pp 124-136, 2014. (c) IEEE. (Scopus, IF:7.982)
- **A Rodan**, H Faris, J Alsakran, O Al-Kadi: *A Support Vector Machine Approach for Churn Prediction in Telecom Industry*.

- International journal of INFORMATION, 17 (8), 3961-3970, 2014. (Scopus, IF:0.46)**
- P. Tino and **A. Rodan** : *Short Term Memory in Input-Driven Linear Dynamical Systems*.
Neurocomputing, Vol. 112, pp.58-63, 2013. (c) Elsevier. (Scopus, IF:3.317)
 - H Faris, M Alkasassbeh, **A Rodan**: *Artificial Neural Networks for Surface Ozone Prediction: Models and Analysis*.
Polish Journal of Environmental Studies 23 (2), pp.341-348, 2014. (Scopus, IF:1.12)
 - **A. Rodan** and P. Tino: *Simple Deterministically Constructed Cycle Reservoirs with Regular Jumps*.
Neural Computation, 24(7), pp 1822-1852, 2012. (c) MIT Press. (Scopus, IF:2.2)
 - **A. Rodan** and P. Tino: *Minimum Complexity Echo State Network*.
IEEE Transactions on Neural Networks, 22(1), pp 131-144, 2011. (c) IEEE. (Scopus, IF:7.982)
 - Fida' Al-Obaisi, Ja'far Alqatawna, Hossam Faris, **Ali Rodan**, Omar AlKadi: *Pattern Recognition of Thermal Images for Monitoring of Breathing Function*.
International Journal of Control and Automation, 2015; 8(6):381-392. SERSC. (Scopus, IF:0.788)
 - J Alsakran, **A Rodan**, N Alhindawi, H Faris: *Visualization analysis of feed forward neural network input contribution*.
Scientific Research and Essays 9 (14), 645-651, 2014.
 - N Alhindawi, J Alsakran, **A Rodan**, H Faris: *A Survey of Concepts Location Enhancement for Program Comprehension and Maintenance*.
Journal of Software Engineering and Applications 7 (5), 413-421, 2014.
 - **Ali Rodan**, Hossam Faris, Ja'far Alqatawna: *Optimizing Feedforward Neural Networks using Biogeography based optimization for E-mail Spam Identification*.
International Journal of Communications, Network and System Sciences, 01/2016; 9(1):19-28.
 - Maen M. Al Assaf, **Ali Rodan**, Mohammad Qataweh, Mohamed Riduan Abid: *Comparison Study Between Informed and Predictive Prefetching Mechanisms For I/O Storage Systems*.
International Journal of Communications, Network and System Sciences 05/2015; 8(5):181-186.
 - H Faris, N Ghatasheh, **A Rodan**, M Abu-Faraj: *Predicting Surface Ozone Concentrations using Support Vector Regression*
Life Science Journal, 11 (6), pp.126-131, 2014. (Scopus, IF:0.34)

Selected Refereed Conference Papers

- **A. Rodan**, A. Castillo, H. Faris, M. Al-Zoubi, M. Mora, and H. Jawazneh.: *Forecasting Business Failure in Highly Imbalanced Distribution based on Delay Line Reservoir*.
26th European Symposium on Artificial Neural Networks - Computational Intelligence and Machine Learning- ESANN 2018, Bruges (Belgium), 25-27 April 2018. (**Scopus**).
- A. AL-Zoubi, **A. Rodan**, A. Alazzam: *Classification Model For Credit Data*
Proceeding of the Current Trends in Information Technology (CTIT18)- Emerging Technologies for Artificial Intelligence, Nov 28-29, Dubai, UAE, 2018, IEEE. (**Scopus**).
- N. Feras, **A. Rodan**, Y. Javed: *Online News Popularity Prediction*.
Proceeding of the Current Trends in Information Technology (CTIT18)- Emerging Technologies for Artificial Intelligence, Nov 28-29, Dubai, UAE, 2018, IEEE. (**Scopus**).
- A. Shawabkeh, F. Al-Beqain, **A. Rodan**, M. Salem: *Benzene Air Pollution Monitoring Model using ANN and SVM*.
Proceeding of the Current Trends in Information Technology (CTIT18)- Emerging Technologies for Artificial Intelligence, Nov 28-29, Dubai, UAE, 2018, IEEE. (**Scopus**).
- L. Qaisi, **A. Rodan**, K. Qaddoum, R. Al-Sayyed: *Customer Churn Prediction using Data Mining Approach*.
Proceeding of the Current Trends in Information Technology (CTIT18)- Emerging Technologies for Artificial Intelligence, Nov 28-29, Dubai, UAE, 2018, IEEE. (**Scopus**).
- W. Alswiti, **A. Rodan**: *Features Selection Effect on Predicting the Popularity of Online News*.
New Trends in Information Technology (NTIT)–2017, Amman, Jordan.
- **Ali Rodan** and Hossam Faris : *Echo State Network with SVM-readout for customer churn prediction*.
IEEE Conference in Applied Electrical Engineering and Computing Technologies (AEECT 2015), pp.1-5, Deadsea, Jordan, 2015. (**Scopus**).
- Dana A. Al Qudah, Alexandra I. Cristea, Suncica Hadzidedic Bazdarevic, Samar Al-Saqqa, **Ali Rodan**, Wei Yang: *Personalized E-Advertisement and Experience: Recommending User Targeted Ads*.
12th IEEE International Conference on e-Business Engineering (ICEBE 2015), pp. 56-61, Beijing, China, 2015. (**Scopus**).
- P. Tino and **A. Rodan**: *Short Term Memory Quantifications in Input-Driven Linear Dynamical Systems*.
20th European Symposium on Artificial Neural Networks - Computational Intelligence and Machine Learning- ESANN 2012, Bruges (Belgium), 25-27 April 2012, pp. 43-48., 2011. (**Scopus**).
- **A. Rodan** and P. Tino: *Negatively Correlated Echo State Networks*.
19th European Symposium on Artificial Neural Networks - Computational Intelligence and Machine Learning- ESANN 2011, Bruges (Belgium), 27-29 April 2011, pp. 53-58., 2011. (**Scopus**).

- **A. Rodan** and P. Tino: *Simple Deterministically Constructed Recurrent Neural Networks*.
In **Intelligent Data Engineering and Automated Learning (IDEAL 2010)**, pp. 267-274, Lecture Notes in Computer Science, LNCS 6283, Springer-Verlag, 2010. (**Scopus**).

Books

- N. Taha, R. Al-Sayyed, J. Alqatawna, **A. Rodan (Eds.): Social Media Shaping e-Publishing and Academia, Springer, 2017. (Scopus)**.

Invited Talks

- **A. Rodan** and N. Landia: *Optimisation of Online Ad-Spend with regard to Predicted Customer Lifetime Value*.
KTN project presented at the Alan Talyer Day, **St Catherine's College, University of Oxford**, Oxford, UK, Nov., 2011.
- **A. Rodan** : *Demystifying Reservoir Computing*.
School of Computing and Mathematics, Keele University, Keele, Staffordshire, UK, March, 2011.
- **A. Rodan** : *Reservoir Computing Methods for RNN training*.
School of Computer Science, The University of Birmingham, Birmingham, UK, May 2010.

Case Studies

A. Rodan, P. Tino and N. Gresham: *Prediction of Customer Lifetime Value, A case study for the KTP project*:

Link: https://connect.innovateuk.org/documents/3000302/6460200/IP11-014_TSG_Birmingham_CaseStudy.jsessionid=CC2266E8266A3946EF7DB99812A7AFF5.1?version=1.0

Journal and Conference refereeing

- I have referred for the following Journals and Conferences.

Journals:

- **IEEE** transactions on Neural Networks and Learning Systems.
- Neural Computation **MIT Press**.
- Scientific Reports **Nature**.
- Neural Network World.
- Natural Computing **Springer**.
- Neurocomputing **Elsevier**
- Applied Intelligence **Springer**
- Soft Computing **Springer**.

Conferences:

- IEEE ITT 2018,2019,2020
- IEEE IJCNN 2018
- ESANN 2018
- ESANN 2017
- Springer ICEPUB 2016
- IEEE AECT 2015
- Springer ICEPUB 2015
- NTP 2014
- Springer ICONIP 2012
- ESANN 2011 and 2012
- IEEE IDEAL 2010 and 2011

- IEEE IJCNN 2010
- IEEE ICANN 2010

- I have organized a Call for Chapters for our book entitled “Social Media Shaping E-publishing” published by **Springer 2016**.

Editors: Dr. Nashrawan Taha, Dr. Rizik Al-sayyed, Dr. ja’far Alqatawna, and **Dr. Ali Rodan**.

- I organized a **special session "Reservoir Computation" at IEEE IJCNN 2010** Conference in Barcelona, Spain with **Prof. Peter Tino** (University of Birmingham) and **Dr. Pedro Gutierrez Pena** (University of Cordoba, Spain).

-I also involved in organizing a special session "**Theory and Practice of Adaptive Input Driven Dynamical Systems**" at **ESSAN 2012** Conference in Bruges, Belgium with **Prof. Peter Tino** (University of Birmingham), **Prof. Herbert Jaeger** (Jacobs University, Germany) and **Prof. Jochen Steil** (Bielefeld University , Germany).

Funded projects – Grants (Internal and External)

- 1. Grant Title:** SEHA E-Health Information System using Blockchain Technology
Summary of the project: Connecting different geographically separated “SEHA” hospitals and health centers in Abu Dhabi is considered as one of the most important contributions in the UAE health sector. Everyday there are a large data transfer related to different health transactions including patients’ data and information. This data need to be transferred in a secure communication channel where it will be then saved and stored in SEHA databases by preventing any one from updating or erasing it. Given the distribution nature of SEHA health facilities and their scalable data store, a suitable data integration protocol is needed. Blockchain is one of the most hyped technologies. This technology has attracted attention in the last few years due to its novelty in enabling a shared distributed ledger among trusted parties. Blockchain will provides a scalable distributed ledger that require consensus across all SEHA healthcare facilities in the blockchain network that will prevent approved data records from tampering or deleting by attackers due to its secure immutable ledger which is what healthcare want. In this research, we proposed a blockchain framework for SEHA healthcare facilities by integrating and combing all the data records in a secure shared decentralized ledger.
Funded By: Higher Colleges of Technology
Budget: 10,000 AED
Duration: 1 year (2020-2021)
Principal Investigator: Ali Rodan
- 2. Grant Title:** Determinants and implications of the Blockchain Technology in the UAE Financial Markets: Towards a new Clearing and Settlement Platform.
Summary of the project: The research project consists to study the antecedents and implications of the blockchain technology in the UAE financial markets. It aims to explore the issuance and trading of stocks listed basically at Abu Dhabi Securities Exchange (ADX) on a distributed ledger technology based platform. This platform is using the BlockChain Technology (BCT) with a networking of various market participants. The goal of this platform is to facilitate clearing and settlement of stocks transactions. It offers the possibility to track trading and ownership of stocks with reducing settlement time and lowering the risk of settlement failures.

UAE regulators (i.e. the Securities and Commodities Authority) and market participants would have interest on a better efficiency and transparency in the financial markets. The purpose of the project is to study how a distributed ledger technology network could make the trading securities transactions easier to manage and monitor with using automated processes and obtaining greater transparency by making relevant information available to all participants on the network.

Funded By: Higher Colleges of Technology

Budget: 200,000 AED

Duration: 2 year (2019-2021)

Principal Investigator: Sonia Abdennadher

Co-Investigators: Ali Rodan, Maher Salem, Munir Naveed

3. Grant Title: Spam Detection in the Context of Educational Institutions using Computational Intelligence

Summary of the project: Email spam is a major and global problem facing all email users. Email spam is not just unsolicited and annoying email messages, but a major cost that organizations and companies pay due to the negative impact of the spam on the bandwidth and storage of the networks, and also on workers time and productivity. Hundreds of thousands dollars are paid every year by organizations to buy anti-spam solutions. For specific working domains like the academic networking environments, spam detection strategies need to be more customizable and adaptable which makes the problem more challenging. In this project a development and application of an open source spam detection software based on evolutionary algorithms is proposed. The goal is to reduce the high afforded costs by the academic institutions while achieving better spam filtering accuracy and efficiency.

Funded By: The University of Jordan

Budget: 19,000 JD (27,000 USD)

Duration: 2 years (2015-2017)

Principal Investigator: Ja'far Alqatawneh

Co-Investigators: Ali Rodan and Hossam Faris

4. Grant Title: Modernization of Teaching Methodologies in Higher Education: EU Experience for Jordan and Palestinian Territory (METHODS).

Summary of the project: The project aims at improving the quality of teaching and learning at the PC universities through incorporating technological tools in consistence with pedagogical best practices and by building the capacity of the universities to evaluate, develop and design e-curricula to be available on an open accessible portal. To achieve this objective, the project will support establishing a national Centre in both Jordan (in UJ) and Palestine (in BZU) to be as a hub for utilizing best practices in ICT in education in both PCs. These Centres will facilitate establishing diverse clusters (pool of staff members from target discipline in Engineering and science faculty with multimedia and educational specialists interested in a certain discipline) from PC universities where an educational specialists will review the proposed learning material in order to ensure compatibility with the standards; and multimedia designers who will design the interfaces, activities, presentation, layout and animation included in the e-curricula.

Funded By: European Union (EU Erasmus+ Project)

Budget: 990,590.00 Euros

Duration: 3 years (2015-2018)

Principal Investigator: Ahmad Al-Salaymeh

Co-Investigators: Ali Rodan et al.

Project Website: <http://methods.ju.edu.jo/Home.aspx>

5. **Grant Title:** Early Warning Anti-riot Detection System (E-WARD)
Funded By: **The University of Jordan**
Budget: 4,500 JD (6,350 USD)
Duration: 2 years (2013-2015)
Principal Investigator: Omar Al-Kadi
Co-Investigators: Ja'far Alqatawna, Ali Rodan, Ikhlas Ahmad
6. **Grant Title:** Designing a Master Program in Health Informatics
Summary of the project: This project proposes the development of an MSc degree program that covers the core and new trends in Health Informatics (HI) and incorporate expertise at EU institutions and six MENA universities. The program will use modern learning and research approaches to support the program curriculum on new HI trends. Improving the efficiency of the care process, and enhancing the quality and outcome of medical treatment are underlying themes of the master program in HI. The biomedical informatics field was defined as spanning the subfields of bioinformatics (molecular and cellular processes); imaging informatics (tissues and organ systems); clinical informatics (individuals and patients) and public health informatics (populations and society). The last two subfields, clinical informatics and public health informatics together comprise health informatics, and are at the heart of our envisioned program. Our proposed curriculum will focus on:-
Clinical tasks – in particular, medical decision-making pertaining to prevention, diagnosis, treatment and follow up and the required support from information systems – as well as patient-related issues;-Healthcare organisation and processes - in particular, the use of information technology in structuring and organising patient-care processes (care-chain logistics).
Funded By: **European Union (EU Erasmus+ Project)**
Budget: 976,987.800 Euros
Duration: 2 years (2016-2018)
Principal Investigator: Loai Alnimer
Co-Investigators: Ali Rodan
7. **Grant Title:** Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities.
Summary of the project: promote reform and modernization of higher education in Jordan through the introduction of a national quality assurance system for technology-enhanced learning. Its main objective is to improve, develop and implement accreditation standards, guidelines and procedures for quality assurance of Technology-Enhanced Learning courses and study programs at a national level.
Funded By: **European Union (EU TEMPUS Project)**
Budget: 1,108,666.59 Euros
Duration: 3 years (2013-2016)
Principal Investigator: Abdallah Al-Zoubi
Co-Investigator: Ali Rodan et al.

Representative Person Roles

- King Abdullah II School for Information Technology's (KASIT) representative person in the university council, 2014-2015.

Participation in Committees

- External Committees

- University of Jordan representative for the membership of the Technical Advisory Committee in the Jordanian Universities Network, 2014 – 2016.
- Committee member of several universities programs accreditations in the Higher Education Accreditation Commission, 2013 – present.

- University Level

- Member of the Higher Committee for the annual book, The University of Jordan, 2014 – 2016.
- Committee Member of the University's website, University of Jordan, 2014 – 2016.
- Member of the Committee for computerization the compulsory University requirements and electives courses, University of Jordan, 2014 – 2015.
- Member of the Committee to issue a monthly e-newsletter of the University of Jordan, 2014 – 2016.
- Member of the Preparatory Committee of the Alumni Forum , University of Jordan, 2014 – 2016.

- College Level

- E-learning Committee, King Abdullah II School for Information Technology (KASIT), The University of Jordan, 2013 – 2016.
- PhD program in Computer Science Committee, King Abdullah II School for Information Technology (KASIT), The University of Jordan, 2013 – 2014 and **2023-present**
- Scientific Research Committee, King Abdullah II School for Information Technology (KASIT), The University of Jordan, 2013 – 2014.
- Graduate Studies Committee, King Abdullah II School for Information Technology (KASIT), The University of Jordan, 2013 – 2014 and 2023-present.
- Study Plan Committee King Abdullah II School for Information Technology (KASIT), The University of Jordan, 2013 – 2014 and **2023-present**

- Department Level

- Graduate Studies Committee, Department of Business Information Technology, KASIT, The University of Jordan, 2014 – present.
- Student Training Committee, Department of Business Information Technology, the University of Jordan, 2012 – present.
- Appointment and Promotion Committee, Department of Business Information Technology, the University of Jordan, 2013 – present.
- Study Plan Committee, Department of Business Information Technology, the University of Jordan, 2013 – present.

Master Students Supervision

- **Mohammad A Hassonah (2017-2019)**, MSc. Thesis Title: Evolutionary approach for sentiment analysis of topics on Twitter, The University of Jordan.
Mohammed Master Thesis publications:
 - M. Hassonah, R. Al-Sayyed, A. Rodan, I. Aljarah, H. Faris: An efficient hybrid filter and evolutionary wrapper approach for sentiment analysis of various topics on Twitter. Knowledge-Based Systems, 2020. (c) Elsevier.
 - M. Hassonah, A. Rodan, A. Al-Tamimi, J. Alsakran Churn Prediction: A Comparative Study Using KNN and Decision Trees, Sixth HCT Information Technology Trends (ITT), 2019.
- **Ghofran Al-Qaralleh (2015 -2017)**, MSc. Thesis Title: Instance selection for active learning in network intrusion detection”, The University of Jordan.
Ghofran Master Thesis publications:
 - G.Alqaralleh, M. Alshraideh and A Rodan: A Comparison Study between Different Sampling Strategies for Intrusion Detection System of Active Learning Model, Journal of Computer Science, 2018.
 - G. Alqaralleh, M. Alshraideh, Ali Rodan: The Effect of Attacker on three of Sampling Strategies in Active Learning, Journal on Software Engineering, 2019.
- **Mais Haj Qasem (2014 – 2015)**, MSc. Thesis Title: “Data Mining Approach for Commercial Data Classification and Migration in Hybrid Storage Systems”, The University of Jordan.
Mais Master Thesis publications:
 - Mais Haj Qasem, H. Faris, A. Rodan, A. Sheta:Empirical Evaluation of the Cycle Reservoir with Regular Jumps for Time Series Forecasting: A Comparison Study, Springer, 2017.
 - M Haj Qasem, MM Al Assaf, A Rodan: Data Mining Approach for Commercial Data Classification and Migration in Hybrid Storage Systems, International Journal of Computer, Electrical, Automation, Control and Information Engineering, 2016.
- **Duaa Elsarraj (2014-2015)**, MSc. Thesis Title: “Demystifying Echo State Network with deterministic simple topologies”, The University of Jordan.
Duaa Master Thesis publications:
 - D. Elsarraj; M. Al Qisi; A. Rodan; N. Obeid; A. Sharieh; H. Faris: Demystifying echo state network with deterministic simple topologies, International Journal of Computational Science and Engineering, Inderscience, 2017.
- **Huda Jazmawi (2015 - 2016)**, MSc. Thesis Title: “Effort Estimation for Web-Based Projects Using Genetic Algorithms”, The University of Jordan.
- **Ashraf Yousif (2015 - 2017)**, MSc. Thesis Title: “Intrusion Detection systems (IDS) using high dimensional space modelling”, The University of Jordan.

I also co-supervised the following Master students Thesis at the University of Birmingham, UK:

- **May Tamara Stow**, MSc. Thesis Title: "Memory Capacity of Recurrent Neural Networks", finished Oct. 2011.
- **Jiazhen Xie**, MSc. Thesis Title: "Modelling Customer Lifetime Value", finished Oct. 2011.

Programming

- R Programming
- Python
- C/C++
- JAVA
- Matlab
- PHP and ASP.Net
- Pascal, Cobol, Assembly
- Parallel Programming PVM and Beowulf Cluster.
- Client /Server Applications using Java RMI and SOAP.
- SQL, PL/SQL
- Network Security Using OpenSSL
- CSP Formal notation for design concurrent system Language
- Formal Specification Using Z notation, UML
- Crystal Reports, SQL Server
- HTML, XHTML, XML
- CSS, DTD, XML Schema, Schematron

System Administrations

- Linux, Solaris, Unix
- Microsoft Windows

Professional references

1. Prof. Azzam Sleit

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Communication Technology
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