King Talal School of Business Technology

Faculty Curriculum Vitae (CV)
2020-2025

I. Personal and Contact Information

Full Name	**Rami Fa'eq Ibrahim**
Current Rank	**Assistant Professor**
Faculty Type	☒ **Core Faculty** ☐ **Non-Core Faculty** **Non-Core Faculty (Adjunct, Visiting, Practitioner)]**
Date of Appointment	**30/09/2025**
Academic Discipline/Field	**Information Technology**
Professional Email	**Rami.ibrahim@psut.edu.jo**
ORCID/Scopus ID	**ORCID: 0000-0001-7167-4203** **Scopus ID: 57202375101**

II. Education and Qualifications

Please list all relevant degrees and professional certifications, starting with the highest degree (Ph.D./DBA).

Degree/Certification	Institution	Country	Year Completed	Academic Discipline
Ph.D.	**Carleton University**	**Canada**	**2022**	**Information Technology**
Master's	**Carleton University**	**Canada**	**2019**	**Information Technology**
Bachelor's	**Applied Science University**	**Jordan**	**2001**	**Computer Science**
Professional Certification	**Carleton University**	**Canada**	**2022**	**Preparing to Teach**
Professional Certification	**MITACS**	**Canada**	**2020**	**Foundations of Project Management**
Professional Certification	**Dell**	**USA**	**2018**	**Data Science Associate**

Professional Certification	**Oracle**	**USA**	**2008**	**Oracle Database Certified Associate**
Professional Certification	**Oracle**	**USA**	**2007**	**Oracle Forms Certified Professional**

III. Teaching and Pedagogical Activities

A. Courses Taught (Last 5 years)

Course Name	Program Level (UG/Master's)	Credit Hours	ERS Integration (Y/N)
Foundations of Business Analytics	Masters	3	Y
Introduction to AI	UG	3	Y
IT Project Management	UG	3	Y
Decision Support Systems	UG	3	Y
Database Design and Development	UG	3	Y
Machine Learning	UG	3	Y
Data Visualization	UG	3	Y

B. Student Supervision

Year	Student Name	Role Supervisor/ Co-sup	Thesis Title	Status Ongoing/Completed

C. Teaching Innovation and Recognition

Describe any significant new course/program development, use of innovative pedagogical methods (e.g., simulations, blended learning, use of case study method), and list any teaching awards.

1. Program Development

I have made significant contributions to curriculum and program development in artificial intelligence and data science across multiple universities in Jordan and Canada:

Al-Hussein Technical University (HTU): I have played a key role in designing and delivering modern AI and data science courses such as Machine Learning, Big Data, Data Visualization, and Artificial Intelligence. These courses integrated both theory and practice through hands-on labs and projects aligned with Pearson BTEC outcomes.

American University of Madaba (AUM): I have expanded the AI curriculum by developing advanced undergraduate courses, including Neural Networks, Natural Language Processing, and Data Science Programming, reflecting emerging industry trends.

Princess Sumaya University for Technology (PSUT): I have enriched the Foundations of Business Analytics course by providing real-world AI use cases (i.e., Predictive Analytics) with real-world decision-making context.

2. Use of Innovative Pedagogical Methods

Blended Learning: Combining theoretical instruction with hands-on lab work using online resources like Google Colab and interactive exercises to deepen understanding of AI algorithms and data analytics techniques.

Real-World Case Studies: Students engage with real-world datasets to simulate authentic problem-solving environments in courses like Data Visualization and Machine Learning.

Project-Based Learning: Students build complete machine learning and AI systems from data preprocessing to model deployment, applying their learning to tangible projects.

Simulations and Hackathons: At HTU, I integrated competitive, real-world challenges through the AI Bootcamp and Hackathon, funded by KBW Ventures, Saudi Arabia. Students developed innovative AI applications collaboratively.

3. Teaching Awards and Recognitions

Carleton University Teaching Certificate (2022) – Formal recognition for completion of a pedagogical training program emphasizing evidence-based teaching practices.

Recognition from Al-Hussein Technical University (2024) for outstanding contribution as a technical instructor and mentor during the AI Bootcamp and Hackathon.

IV. Research and Intellectual Contributions (IC)

A. Peer Reviewed Journal Publications

Classify your intellectual contributions (IC) into the three categories: Disciplinary/Basic Scholarship (DS), Applied/Practice-Oriented Scholarship (AS), and Pedagogic Scholarship (PS). ERS (Ethics, Responsibility, and Sustainability)

IC Type (DS/AS/PS)	Full Citation (Journal, Book, Case Study, etc.)	Publication Date	Journal Indexing/ IF (If Applicable)	ERS Focus (Y/N)
AS	Ibrahim R *, Omair Shafiq M., Explainable Convolutional Neural Networks: A Taxonomy, Review, and Future Directions. ACM Computing Surveys	2023	Scopus Q1/ Impact Factor 28	Y

AS	Ibrahim R *, Omair Shafiq M., Augmented Score-CAM: High-resolution visual interpretations for deep neural networks. Elsevier Knowledge-Based Systems	2022	Scopus Q1/ Impact Factor 7.6	Y
AS	Ibrahim R *, Omair Shafiq M., Detecting taxi movements using Random Swap clustering and sequential pattern mining. Springer Journal of Big Data	2019	Scopus Q1/ Impact Factor 6.4	Y

B. Conference Presentations and Research Grants

Activity	Title/Topic	Funding Body/Conference Name	Year
Conference Presentation	Ibrahim R*, Omair Shafiq M., On Predicting Taxi Movements Modes in Porto City Using Classification and Periodic Pattern Mining.	Proceeding of the 21st IEEE International Conference on High Performance Computing and Communications (HPCC)	2019
Conference Presentation	Ibrahim R*, Omair Shafiq M., Towards a New Approach to Empower Periodic Pattern Mining for Massive Data using Map-Reduce.	Proceeding of the IEEE International Conference on Big Data	2018
Conference Presentation	Ibrahim R*, Omair Shafiq M., Mining Trajectory Data and Identifying Patterns for Taxi Movement Trips.	Proceeding of the 13th IEEE International Conference on Digital Information Management (ICDIM)	2018
Conference Presentation	Ibrahim R*, Omair Shafiq M., Towards A New Approach for Empowering the MR-DBSCAN Clustering for Massive Data using Quadtree.	Proceeding of the 20th IEEE International Conference on High Performance Computing and Communication (HPCC)	2018
Conference Presentation	Ibrahim R* et al., MapReduce based Classification for Fault Detection in Big Data Applications.	Proceeding of the 16th IEEE International Conference on Machine Learning and Applications (ICMLA)	2017
Conference Presentation	Ibrahim R*, Omair Shafiq M., On the Measurement and Analysis of Safety in a Large City.	Proceeding of the 3rd IEEE International Conference on Big Data Intelligence and Computing (Datacom)	2017
Conference Presentation	Ibrahim R* et al., SensArt Demo: A Multisensory Prototype for Engaging with Visual Art	Proceedings of the 2017 ACM International Conference on Interactive Surfaces and Spaces (ISS)	2017
Conference Presentation	Ibrahim R*, Omair Shafiq M., Measurement and Analysis of Citizens Requests to Government for Non-Emergency Services.	Proceeding of the 12th IEEE International Conference on Digital Information Management (ICDIM)	2017

Research Grant	NSERC Alexander Graham Bell Canada Graduate Scholarship-Doctoral (CGS D)	Government of Canada	2021
Research Grant	OGS Ontario Graduate Scholarship	Province of Ontario	2019,2020,2021
Research Grant	NSERC Master's Scholarship	Government of Canada	2018
Research Grant	The Queen Elizabeth II Scholarship in Science and Technology (QEII)	Carleton University	2017

V. Professional Experience and Relevance

A. Non-Academic Work Experience

List significant full-time non-academic employment, especially if relevant to your teaching and research.

Company/ Organization	Title/Role	Start Date	End Date	Key Responsibilities/Achievements
Omnix International	Software Engineer	2004	2016	1- Developing the **HR Decision Support System** using materialized views and Oracle Forms in the Saudi Tax and Customs Authority (ZAKAT). Department managers had to print reports related to information like attendance, payrolls, and overtime, which consumed effort and time. Our system helped managers access dashboards of records related to their employees and make critical decisions. 2- Developing and implementing the **Unified Mailing Operations System** in multiple branches of the Saudi Tax and Customs Authority (ZAKAT) and training employees on the system. Branches had to use paper in their internal/external mailing operations, which caused delays in clients' applications. This project helped the Jeddah and Dammam branches automate their operations. 3- Developing the **Financial Analytics System** using Oracle database and Graphs Builder. This system helped the Saudi Committee for the Promotion of Virtue and the Prevention of Vice (HESBAH) to analyze expenditures across different departments and identify remaining funds at the end of the financial year. 4- Integrating the **Human Resource Database** with the Saudi Standards, Metrology, and Quality Organization (SASO) web services by building a set of packages, procedures, and functions. Employees had to submit a request and follow up with their supervisors and heads of departments regarding the progress of their applications. However, this project provided automated workflows for vacations, delegations, and overtime applications. Employees could track the progress of their applications.

B. Professional Engagement

Activity	Organization/Client	Role/Nature of Work	Dates (Start-End)
Committee Membership	Princess Sumaya University for Technology (PSUT)	Member	2025-2026
Professional Association Membership	Project Management Institute	Member	2011-2012

VI. Service and Engagement

List your service contributions, distinguishing between internal (University/School) and external (Community/Societal) roles.

Service Type	Committee/Role	Organization/Body	Dates (Start-End)
University/School Service	Graduate Studies/Member	Princess Sumaya University for Technology (PSUT)	2025-2026
University/School Service	Scientific Research/Member	Princess Sumaya University for Technology (PSUT)	2025-2026
University/School Service	Competitions & Hackathons/Head of Committee	Princess Sumaya University for Technology (PSUT)	2025-2026

VII. Ethics, Responsibility, and Sustainability (ERS) Contribution

Please ensure all ERS-related activities are documented here, even if listed elsewhere. CSR (Corporate Social Responsibility)

Activity Type	Details of Contribution	ERS Theme (e.g., CSR, Climate, Governance)	Year
Teaching	Integrated discussions on fairness, bias, and transparency in AI & Intelligent Systems and Machine Learning courses to promote responsible AI use.	Governance	2023–2025
Teaching	Emphasized ethical decision-making and sustainable analytics practices in Decision Support Systems and Foundations of Business Analytics courses.	CSR	2024–2025
Teaching	Designed and mentored the AI Bootcamp and Hackathon at HTU, encouraging students to develop socially impactful and environmentally conscious AI solutions.	Energy & Environmental Sustainability	2024

Research	Journal paper: 'Explainable Convolutional Neural Networks: A Taxonomy, Review, and Future Directions' (ACM Computing Surveys), promoting transparency and accountability in AI systems.	Governance	2022
Research	Journal paper: 'Augmented Score-CAM: High-resolution visual interpretations for deep neural networks' (Elsevier Knowledge-Based Systems), advancing explainable and trustworthy AI.	Education & Sustainability	2022
Research	Published multiple IEEE papers on Big Data analytics and pattern mining focusing on responsible use of data and scalability for sustainable systems.	Institutional Sustainability	2017–2019
Service & Engagement	Appeared on Jordan TV discussing 'Opportunities and Challenges of Artificial Intelligence in Digital Media,' promoting ethical media use and public understanding of AI.	CSR	2023
Service & Engagement	Actively mentored students in AI ethics and sustainable innovation across multiple universities.	Social Sustainability	2023–2025
Service & Engagement	Engaged with industry partners and sponsors (e.g., KBW Ventures) to bridge academia and ethical AI entrepreneurship.	CSR	2024
Professional Development	Earned Teaching Certificate (Carleton University), emphasizing inclusive, equitable, and ethical classroom practice.	Education & Sustainability	2022

VIII. International Experience

List activities that demonstrate international engagement in teaching, research, and professional practice.

Activity Type	Institution/Location	Role/Purpose	Dates (Start-End)
International Professional Experience	Omnix International/Saudi Arabia	Software Engineer/Project Coordinator	2004-2016