WISE-2024 Program

This year, WISE2024 is collocated with the Fourth International Congress for Engineering and Technology ICET-2024, which is organized by Qatar University. You are cordially invited to attend the opening ceremony of the ICET-2024.

Monday 02 December, 2024
The Opening Ceremony of the **Fourth International Congress for Engineering and Technology ICET-2024** Qatar University, College of Engineering – Building H07

		Monday 02 December, 2024		
		WISE 2024 – Opening Ceremony **Auditorium A128**		
10:30-12:30	10:30-10:40	*WISE2024 – Opening and Overview*	WISE2024 Chairs: • Dr. Mahmoud Barhamgi (*Qatar University*) • Dr. Yanchun Zhang (*Zhejiang University China*) • Dr. Hua Wang (*Victoria University*)	
	10:40-10:55	*Welcoming Speech*	• Dr. Aiman Erbad, *VP of Research and Graduate Studies*, (*Qatar University*),	
	10:55-11:00		• Dr. Danya Saifaldeen, Qatar Research, Development and Innovation (QRDI)	
	11:00-11:45	Keynote 1 - *AI Beyond the Hype: Building a Sustainable Tech Future in Qatar*	• Speaker: Dr. Ahmed K Elmagarmid (*Qatar Computing Research Institute*). • Session Chair: Dr. Amr Mohamed (*Qatar University*).	
	11:45-12:30	Keynote 2 - *The Persistent Problem of Software Insecurity*	• Speaker: Dr. Elisa Bertino, Purdue University, USA. • Session Chair: Dr. Amr Mohammed (*Qatar University*).	
12:30-13:30		**Lunch Break**		

Monday 02 December, 2024
WISE2024 – Technical Sessions (*in parallel*)

13:30 - 15:00

Session 1 – *Recommendation Systems*
Chair: Feng Zhang (Renmin University of China)
Online Link:
Room: B114

- Research on micro-videos recommendation method integrating multimodal data and user multi-behavior.
  Authors: Wangwang Zhang, Baojun Tian, Tengjiao Wang, Lu Yuan, and Meng Jiang.

- Feature-Adaptive Meets Domain-Specific Networks for Multi-Domain Recommendation.
  Authors: Shengfeng Lin, Huanhuan Yuan, Guanfeng Liu, Xuefeng Xian, Zhiming Cui, and Pengpeng Zhao

- Next POI Recommendation Based on Time Slot Preferences and Bidirectional Transformation Modeling.
  Authors: Zhao Liu, Wei Liu, Huaijie Zhu, Jianxing Yu, and Jian Yin.

- DKAF:Diffusion Kolmogorov-Arnold Fourier Hard Sample Mining for CTR.
  Authors: Hailong Luo, Yijing Wang, Qingqing Zhu, and Dazhao Ding

Session 2 – *Information Retrieval & Text Processing*
Chair: Hua Wang (Victoria University)
Online Link:
Room: B116

- Learning Contrastive Representations for Dense Passage Retrieval in Open-domain Conversational Question Answering.
  Authors: Munazza Zaib, Quan Z. Sheng, Wei Emma Zhang, Elaf Alhazmi and Adnan Mahmood.

- Wikipedia Empowered Natural Language Interface for Web Search.
  Authors: S. M. Mazharul Hoque Chowdhury.

- Mathematical Formulas-Based Scientific Literature Retrieval with Heterogeneous Network Semantic Enhancement.
  Authors: Xin He.

- MarkedDPR: Enhancing Dense Passage Retrieval with Exact Match Signals and Synthetic Data Augmentation.
  Authors: Smail Oussaidene, Lynda Said Lhadj and Mohand Boughanem

Session 3 – *Knowledge & Data Management*
Chair: Vanilson Buregio (UDST)
Online Link:
Room: B103

- Data- and Activity-centric Business Process Modeling: An Approach based on Business Units.
  Authors: Zakaria Maamar, Amel Benna, Vanilson Burégio, Wictor Lopes, Amal Hafsi, Cheima Ben Njima, and Chirine Ghedira Guegan.

- Periphoscape: Enhance Wikipedia Browsing by Presenting Diverse Aspects of Topics.
  Authors: Shin-Ya Sato.

- TERM: Tree Ensemble Models for Interpretable Rule Mining.
  Authors: Mengyu Zhu, Zhao Li, Jun Zhao, Xiaopeng Liu, and Yongning Liu.

- A high utility co-location pattern mining algorithm using multiple utility thresholds.
  Authors: Vanha Tran, Thiloan Bui, Thaigiang Do and Hoangan Le.

Session 4 – *Online Safety and Wellbeing through AI*
Chair: Wajdi Zaghouani (Northwestern University)
Online Link:
Room: B104

- DisCo-FEND: Social Context Veracity Dissemination Consistency-Guided Case Reasoning for Few-Shot Fake News Detection.
  Authors: Weiqiang Jin, Ningwei Wang, Tao Tao, Mengying Jiang, Xiaotian Wang, Biao Zhao, Hao Wu, Haibin Duan and Guang Yang

- NLWM: a Robust, Efficient and High-quality Watermark for Large Language Models.
  Authors: Mengting Song, Ziyuan Li, Kai Liu, Min Peng and Gang Tian

- Improving the Robustness of Rumor Detection Models with Metadata-Augmented Evasive Rumor Datasets.
  Authors: Larry Huynh, Andrew Gansemer, Hyoungshick Kim and Jin Hong

- Rumor Alteration for Improving Rumor Generation.
  Authors: Larry Huynh, Jesse Kilcullen and Jin Hong.

Session 5 – *Graph Machine Learning On Web and Social Media*
Chair: Wenqi Fan (Hong Kong Polytechnic University)
Online Link:
Room: B105

- Knowledge Graph Relation Patterns Networks for Recommendations.
  Authors: Yong Yi Liu, Shanru Lin and Jiangtao Huang.

- Robust Graph Learning against Camouflaged Malicious Actors.
  Authors: Venus Haghighi, Nasrin Shabani, Behnaz Soltani, Lina Yao, Quan Z. Sheng, Jian Yang and Amin Beheshti.

- Label-enhanced Cross-modal Hashing with Dual-semantic Learning.
  Authors: Ziye Fang, Luyao Teng, Zefeng Zheng, Wei Zhang and Shaohua Teng

12:30-13:30	Lunch Break

Monday 02 December, 2024
Keynote @ Auditorium A128

15:00 - 15:45	Keynote 3 - *Responsible software engineering and the web: too little, too late?*	• Prof. Bashar Nuseibeh (The Open University). • Session Chair: Mahmoud Barhamgi (QU).
15:45 – 16:00	Coffee Breaks	

Monday 02 December, 2024
WISE2024 – Technical Sessions (*in parallel*)

Session 6 – *Recommendation Systems*
Chair: Feng Zhang (Renmin University of China)
Online Link:
Room: B114

- Cross-Domain Sequential Recommendation with Temporal Encoding and Projection-Based Learning.
  Authors: Lvying Chen, Ji Zhang, Yuxi Zhang, Sujie Yu, and Bohan Li.
- CSA4Rec: Collaborative Signals Augmentation model based on GCN for Recommendation.
  Authors: Haibo Liu, Lianjie Yu, Yali Si, and Jinglian Liu.
- Implicit-Relation Knowledge Distillation for Robust Recommendations.
  Authors: Wenhao Liu, Sui Lin, and Lanjun Li.
- Temporal preference and knowledge-aware collaborative attentive network for electrical material recommendation.
  Authors: Jie Shen, Lei Chen, Guixiang Zhu, Jie Cao, Weiping Qin, Yihan Chen, and Yiheng Lu.
- The Research of Sequence Recommendation Method Based on Heterogeneous Enhanced Transformer with Multi-Behavior Data.
  Authors: Tengjiao Wang, Baojun Tian, Wangwang Zhang, Lu Yuan, and Meng Jiang.

Session 7 – *Humans and Web Security*
Chair: Catuscia Palamidessi (INRIA)
Online Link:
Room: B116

- On How Cialdini's Persuasion Principles Influence Individuals in the Context of Social Engineering: A Qualitative Study.
  Authors: Aya Muhanad, Israa Abuelezz, Khaled Khan and Raian Ali
- The Impact of Personality Traits and Need for Cognition on Cybersecurity Behavior: A Study Across Arab and European Samples.
  Authors: Eiman Al-Hamad, Sameha Alshakhsi, Areej Babiker, Aiman Erbad and Raian Ali
- Reporting Social Media Fraud: Motivations, Barriers, and Reporting Mechanism.
  Authors: Eiman Al-Hamad, Aiman Erbad and Raian Ali
- Need for Affect and Need for Cognition vs. Cybersecurity Attitude.
  Authors: Faisal Abughazaleh, Israa Abuelezz, Khaled Khan and Raian Ali

16:00 - 17:30

- Detecting ransomware using system calls through transfer learning on a limited feature set.
  Authors: Harpreet Kaur, Vimal Kumar and Atthapan Daramas
- Nob-MIAs: Non-biased Membership Inference Attacks Assessment on Large Language Models with Ex-Post Dataset Construction.
  Authors: Cédric Eichler, Nathan Champeil, Nicolas Anciaux, Alexandra Bensamoun, Héber H. Arcolezi, and José Maria De Fuentes

Session 8 – *Knowledge and Data Management*
Chair: Amjad Rattrout (Grenoble University)
Online Link:
Room: B103

- Talking Buildings: Interactive Human-Building Smart-Bot for Smart Buildings.
  Authors: Devmane Suhas, Omer Rana, Simon Lannon, and Charith Perera
- Concepts and Relations Features Are All You Need for Embedding-based Ontology Matching.
  Authors: Samira Oulefki, Lamia Berkani, Nassim Boudjenah, Ladjel Bellatreche, and Aicha Mokhtari
- An Ontological Approach for Anomaly Detection in Supply Chain-based Business Processes.
  Authors: Tahani Abu Musa, Abdelaziz Bouras and Abdelhak Belhi
- AutoTable: Effective and Efficient Automated Feature Transformation for Tabular Data.
  Authors: Shanshan Huang, Junpeng Zhu, Fengyan Zhang, Peng Cai and Qiwen Dong.
- Incorporating Taxonomic Reasoning and Regulatory Knowledge into Automated Privacy Question Answering.
  Authors: Abhilasha Ravichander, Ian Yang, Rex Chen, Shomir Wilson, Thomas Norton and Norman Sadeh.

Session 9 – *Online Safety and Wellbeing through AI*
Chair: Firoj Alam (Qatar Computing Research Institute)
Online Link:
Room: B104

- Generating Effective Answers to People's Everyday Cybersecurity Questions: An Initial Study.
  Authors: Ananya Balaji, Lea Duesterwald, Ian Yang, Aman Priyanshu, Costanza Alfieri and Norman Sadeh.
- Propaganda to Hate: A Multimodal Analysis of Arabic Memes with Multi-Agent LLMs.
  Authors: Firoj Alam, Md. Rafiul Biswas, Uzair Shah, Wajdi Zaghouani and Georgios Mikros.
- Did You Tell a Deadly Lie? Evaluating Large Language Models for Health Misinformation Identification.
  Authors: Surendrabikram Thapa, Kritesh Rauniyar, Hariram Veeramani, Aditya Shah, Imran Razzak and Usman Naseem.
- Native vs Non-Native Language Prompting: A Comparative Analysis.
  Authors: Mohamed Bayan Kmainasi, Rakif Khan Pathan, Ali Ezzat Shahroor, Boushra Bendou, Maram Hasanain and Firoj Alam.
- DisFact: Fact-Checking Disaster Claims.
  Authors: Ademola Adesokan, Haiwei Hu and Sanjay Madria.

Session 10 – *Graph Machine Learning On Web and Social Media*
Chair: Wenqi Fan (Hong Kong Polytechnic University)
Online Link:
Room: B105

- Towards Building a Lightweight and Powerful Computation Graph for Scalable GNN.
  Authors: Chang Gong, Boyu Yang, Weiguo Zheng, Xing Huang, Weiyi Huang, Jie Wen, Shijie Sun and Bohua Yang.
- Skill Vector Representation Learning for Collaborative Team Recommendation: A Comparative Study.
  Authors: Md Jamil Ahmed, Mahdis Saeedi and Hossein Fani.
- Learning to Ask about Text Content in an Image with Fine-Grained Features.
  Authors: Mengqiu Cheng, Wangting Qiao, Junming Chen and Xianfeng Li.
- Semantic Similarity-Based Graph Contrastive Learning for Recommender System.
  Authors: Longchuan Tu, Shunmei Meng, Xiao Liu, Guanfeng Liu, Amin Beheshti, and Xuyun Zhang.
- MHHCR: Multi-behavior Heterogeneous Hypergraph Contrastive Recommendation.
  Authors: Yiheng Li and Weihai Lu.

Tuesday 03 December, 2024

WISE2024 – Technical Sessions (*in parallel*)

Session 11 – *Social Media & News Analysis*
Chair: Sanaa Kaddoura (Zayed University)
Online Link:
Room: B114

- The Influence of Social Networking Usage Experience and Activity on Preferences of Explainable Artificial Intelligence (XAI) Representation Methods in a Hate Speech Detection System.
  Authors: Noor Al-Ansari, Dena Al-Thani, and Mariam Bahameish

- Language Model-Based Approach for Multiclass Cyberbullying Detection.
  Authors: Sanaa Kaddoura and Reem Nassar

- MeTAN: Metaphoric Temporal Attention Network for depression detection on Social Media.
  Authors: Ruben Sinu Kurian, Chandramani Chaudhary, Abhay Unni Nambiar, and Abhina Sunny

- EBUD: Evolving Disaster Burst Detection over Social Streams.
  Authors: Xiyu Qiao, Xiangmin Zhou, Changjun Zhou, Hua Wang and Yanchun Zhang

- MAPX: An explainable model-agnostic framework for the detection of false information on social media networks.
  Authors: Sarah Condran, Michael Bewong, Selasi Kwashie, Md Zahidul Islam, Irfan Altas and Joshua Condran

- Misinformation in Reels, Influence of Contextual Superimposed Texts in Short Videos.
  Authors: Andrew Bartlett, Waheeb Yaqub, Basem Suleiman and Manoranjan Mohanty

- What Did The People Say? Evaluating the Effect of Comment Summarisation Tags on Perceived News Credibility Using Qualitative Approach. *Authors: Ansar Iqbal, Waheeb Yaqub, Basem Suleiman and Manoranjan Mohanty.*

Session 12 – *Web Technologies*
Chair: Sebastian HEIL (Chemnitz University of Technology)
Online Link:
Room: B116

- A Graph-Based Approach for Software Functionality Classification on the Web.
  Authors: Yinhao Jiang, Michael Bewong, Arash Mahboubi, Sajal Halder, Rafiqul Islam, Md Zahidul Islam, Ryan H. L. Ip, Praveen Gauravaram, and Jason Xue

- Multi-Perspective Conformance Checking For Email-driven Processes.
  Authors: Ralph Bou Nader, Ikram Garfatta, Marwa Elleuch, Walid Gaaloul and Yehia Taher

- Progressive Server-Side Rendering with Suspendable Web Templates.
  Authors: Fernando Miguel Carvalho

- HMSC-LLMs: A Hierarchical Multi-agent Service Composition Method Based on Large Language Models.
  Authors: Xingchuang Liao, Wenjun Wu, Xiaoming Yu, Xin Ji, Yiting Chen and Junting Li

- Enhancing Web Spam Detection through a Blockchain-Enabled Crowdsourcing Mechanism.
  Authors: Noah Kader, Inwon Kang, and Oshani Seneviratne

- WNSWE: Web-based Network Simulator for Web Engineering Education.
  Authors: Sebastian Heil, Lucas Schröder, and Martin Gaedke

- RANGER: Context-Aware Service Unit of Work Recommendation for Incremental Scientific Workflow Composition.
  Authors: Xihao Xie, Jia Zhang, Chang Liu, Rahul Ramachandran, Tsengdar Lee and Seungwon Lee

- MarkedDPR: Enhancing Dense Passage Retrieval with Exact Match Signals and Synthetic Data Augmentation.
  Authors: Smail Oussaidene, Lynda Said Lhadj and Mohand Boughanem

Session 13 – Learning and Optimization
Chair: Allel Hadjali (Ensma Poitiers)
Online Link:
Room: B103

- PR-Rank: A Parameter Regression Approach for Learning-to-Rank Model Adaptation without Target Domain Data.
  Authors: Takumi Ito, Atsuki Maruta, Makoto P. Kato, and Sumio Fujita

- Weighted Linear Regression with Optimized Gap for Learned Index.
  Authors: Hongtao Sun, Libin Zheng, and Jian Yin

8:10 – 10:30 (left margin, vertical)

- TAKE: Tracing Associative Empathy Keywords for Generating Empathetic Responses Based on Graph Attention.
  Authors: <u>Kai Liu</u>, Mengting Song, Wenjie Xu, Keyao Li, Min Peng and Gang Tian.

- Intent identification using few-shot and active learning with user feedback.
  Authors: <u>Senthil Ganesan Yuvaraj</u>, Boualem Benatallah, Hamid Reza Motahari-Nezhad, and Fethi Rabhi.

- CLIMB: Imbalanced Data Modelling using Contrastive Learning with Limited Labels.
  Authors: <u>Abdullah Alsuhaibani</u>, Imran Razzak, Shoaib Jameel, Xianzhi Wang, and Guandong Xu.

- CL3: A Collaborative Learning Framework for the Medical Data Ensuring Data Privacy in the Hyperconnected Environment.
  Authors: Mohamamd Zavid Parvez, <u>Rafiqul Islam</u>, and Md Zahidul Islam.

- Selectivity Estimation for Spatial Filters using Optimizer Feedback: A Machine Learning Perspective.
  Authors: Nadir Guermoudi, Houcine Matallah, Amin Mesmoudi, Seif Eddine Benkabou and <u>Allel Hadjali</u>

Session 14 – *LLMs & their Applications*
Chair: Devis BIANCHINI (University of Brescia)
Online Link:
Room: B104

- Deconfounded Causality-aware Parameter-Efficient Fine-Tuning for Problem-Solving Improvement of LLMs.
  Authors: <u>Ruoyu Wang</u>, Xiaoxuan Li, and Lina Yao.

- Regularized Multi-LLMs Collaboration for Enhanced Score-based Causal Discovery.
  Authors: <u>Xiaoxuan Li</u>, Yao Liu, Ruoyu Wang, and Lina Yao.

- Therapying Outside the Box: Innovating the Implementation and Evaulation of CBT in Therapeutic Artificial Agents.
  Authors: <u>Sharjeel Tahir</u>, Jumana ABu-Khalaf, Syed Afaq Ali Shah, and Judith Johnson.

- iText2KG: Incremental Knowledge Graphs Construction Using Large Language Models.
  Authors: <u>Yassir LAIRGI</u>, Ludovic MONCLA, Rémy CAZABET, Khalid BENABDESLEM, and Pierre CLÉAU.

- "Is this site legit?": LLMs for Scam Website Detection.
  Authors: Yuan-Chen Chang and <u>Esma Aimeur</u>.

- Towards Enhancing Linked Data Retrieval in Conversational UIs using Large Language Models.
  Authors: <u>Omar Mussa</u>, Omer Rana, Benoît Goossens, Pablo Orozco-Terwengel and Charith Perera

Session 15 – *Security & Privacy*
Chair: Basel Katt (NTNU)
Online Link:
Room: B105

- **<u>Keynote Talk</u>: *IoT Security and Privacy*, Dr. Richard Chebir, (Pau University).**

- Privacy-Preserving k-core Decomposition For Graphs.
  Authors: <u>Xuyang Liu</u>, Rong Zhao, Bingwen Feng and Jilian Zhang.

- Anomaly Detection in Log Streams based on Time-Contextual Models.
  Authors: <u>Daniil Fedotov</u>, Jaroslav Kuchar, and Tomas Vitvar.

- Enhancing Open-Set Recognition with Global Feature Representation.
  Authors: <u>Guolou Ping</u>.

- Dynamic-Parameter Genetic Algorithm for Multi-objective Privacy-Preserving Trajectory Data Publishing.
  Authors: <u>Samsad Jahan</u>, Yongfeng Ge, Hua Wang and Enamul Kabir.

- FUD-LDP: Fully User Driven Local Differential Privacy.
  Authors: Gnanakumar Thedchanamoorthy, <u>Michael Bewong</u>, Meisam Mohammady, Tanveer Zia, and Md Zahidul Islam.

- A Privacy-Preserving Encryption framework for Big data analysis.
  Authors: <u>Taslima Khanam</u>, Siuly Siuly, Kate Wang and Zhonglong Zheng.

- Location nearest neighbor query scheme in edge computing based on differential privacy.
  Authors: <u>Yanni Han</u>, Zhuoqun Li, Jian Zhang, Zhen Wu, and Ying Ding

10:30-11:00	Coffee Break

Tuesday 03 December, 2024		
Keynote & Panel @ Auditorium A128		
11:00 - 12:00	Keynote 4: *Making ML-based Decisions Safe ad Robust against Elusive Actions*	• Speaker: Dr. Ernesto Damiani (Khalifa University) • Session Chair: Qutaibah Malluhi (Qatar University)
12:00 – 13:30	**Lunch Break**	
13:30 - 14:30	Panel "*AI for Good*" Moderator: Dr. Amr Mohamed (Qatar University).	Speakers: • Dr. Aiman Erbad, VP of Research and Graduate Studies, (Qatar University). • Dr. David Camacho (Madrid University). • Dr. Ernesto Damiani (Khalifa University). • Dr. Su Lin Blodgett (Microsoft Research).
14:30 - 15:00	**Posters & DEMOs Session (with the Coffee Break)** *Session chairs: Dr. Saeed Salem Saeed Salem (Qatar University), Bekir Çiftler (University of Doha)* • GraphTFD: A Fraud Detection System based on Graph Transformer. *Authors: Chengcheng Yu, Lujing Fei, Wenqian Zhou, Lin Chen, Jiahui Wang, Xiankai Meng, and Fangshu Chen.* • MLGE-AC-UFD: Multi-Level Graph Embedding and Approximate Computation for Unsupervised Fraud Detection. *Authors: Yixin Tian, Bingkun Wang, Jiahui Wang, Yilin Huang, and Fangshu Chen.* • SeCORE: Quantitative Security Assurance and Evaluation Platform. *Authors: Alan Katt and Basel Katt.* • Developing geospatial web applications using question answering engines, knowledge graphs and linked data tools. *Authors: Sergios-Anestis Kefalidis, Konstantinos Plas, George Stamoulis, Dharmen Punjani, Pierre Maret and Manolis Koubarakis.* • A Visual Query Builder for DBpedia. *Authors: Dimitrios Soumis, George Stamoulis, and Manolis Koubarakis.* • FL-PPELA: Partial Parameter Enhancement and Local Adaptive Aggregation for Personalized Federated Learning. *Authors: Jinkun Pan, Xiaoyan Liang, and Ruizhong Du* • ORCPM: An Online Regional Core Pattern Mining System. *Authors: Dongsheng Wang, Jinjia Dai, Lizhen Wang, and Hui Chen.* • MTRM: A Web-Miner Multi-Threshold Mining Co-Location Patterns to Mitigate Redundancy. *Authors: Muquan Zou, Vanluan Nguyen, Vanha Tran, Ducanh Khuat, and Thiloan Bui.* • Constrain Path Optimization on Time-Dependent Road Networks. *Authors: Kousik Kumar Dutta and Venkata M. V. Gunturi*		
15:00 - 15:45	Keynote 5: Fairness and AI	• Dr. Su Lin Blodgett (Microsoft Research). • Session Chair: David Camacho (Madrid University).
15:45 - 16:00	Coffee Break	

Tuesday 03 December, 2024	
WISE2024 – Technical Sessions (*in parallel*)	
16:00 – 17:30	**Session 16 – *Social Media & News Analysis*** **Chair: Dr. Basem Suleiman (University of Sydney)** **Online Link:** **Room: B114** • Are fact checkers effective in the post truth world? Assessing impact of fact checkers cross medium and platforms. *Authors: Hrishikesh Masurkar, Basem Suleiman, Waheeb Yaqub, and Muhammad Johan Alibasa.* • Target-Specific Hate Trend Prediction on Social Network. *Authors: Haoyuan Zeng, Xiang Zeng, Ye Wang, and Bin Zhou.* • Characterizing Collective Attention on Online Chats: A Three-Pronged Approach. *Authors: Josemar Caetano, Humberto T. Marques-Neto and Virgilio Almeida*

Session 17 – *Recommendation Systems*
Chair: Hua Wang (Victoria University)
Online Link:
Room: B116

- MDAP: A Multi-view Disentangled and Adaptive Preference Learning Framework for Cross-Domain Recommendation.
  Authors: Junxiong Tong, Mingjia Yin, Hao Wang, Qiushi Pan, Defu Lian, and Enhong Chen.

- Causal Behavior Pattern Inference for News Recommendation through Multi-interest Matching.
  Authors: Xingming Chen, Wenqi Fan, and Qing Li.

- MIN: Multi-stage Interactive Network for Multimodal Recommendation.
  Authors: Minghao Mo, Weihai Lu, Qixiao Xie, Zikai Xiao, Xiang Lv, Hong Yang and Yanchun Zhang.

- Optimizing Real Estate Recommendations with Elasticsearch and Machine Learning Techniques.
  Authors: Fatma Sbiaa, Nadia Boufares, Sonia Kotel and Ahmed Maalel

Session 18 – *Learning & Optimization*
Chair: Moncef Garouani (University Toulouse Capitole)
Online Link:
Room: B103

- On Adversarial Training with Incorrect Labels.
  Authors: Benjamin Zi Hao Zhao, Junda Lu, Xiaowei Zhou, Dinusha Vatsalan, Muhammad Ikram and Mohamed Ali Kaafar.

- Model Lake: a New Alternative for Machine Learning Models Management and Governance.
  Authors: Moncef Garouani, Franck Ravat and Nathalie Valles-Parlangeau.

- Equivariant Diffusion-based Sequential Hypergraph Neural Networks with Co-Attention Fusion for Information Diffusion Prediction.
  Authors: Ye Lu, Ji Zhang, Ting Yu, and Gaoming Yang.

- A Benchmark Test Suite for Multiple Traveling Salesmen Problem with Pivot Cities.
  Authors: Zi-Yang Bo, Dan-Ting Duan, Qiang Yang, Xu-Dong Gao, Pei-Lan Xu, Xin Lin, Zhen-Yu Lu and Jun Zhang

Session 19 – *LLMs & their Applications*
Chair: Khalid Benabdeslem (UCBL)
Online Link:
Room: B104

- BioLinkerAI: Capturing Knowledge using LLMs to Enhance Biomedical Entity Linking.
  Authors: Ahmad Sakor, Kuldeep Singh, and Maria-Esther Vidal.

- Enhancing LLMs Contextual Knowledge with Ontologies for Personalised Food Recommendation.
  Authors: Ada Bagozi, Devis Bianchini, Michele Melchiori and Anisa Rula.

- ShizishanGPT: An Agricultural Large Language Model Integrating Tools and Resources.
  Authors: Shuting Yang, Zehui Liu, Wolfgang Mayer, Ningpei Ding, Ying Wang, Yu Huang, Pengfei Wu, Wanli Li, Lin Li, Hongyu Zhang and Zaiwen Feng

Session 20 – *PhD Symposium*
Chair: Amjad Rattrout (Grenoble University)
Online Link:
Room: B105

- **Keynote: *How to make a successful PhD*, Dr. Salima Benbernou, (Université Paris Cité), Dr. Yanchun Zhang (Victoria University)**

- Semantic Communication of Images using Image Generation and Image Captioning Models.
  Authors: Asma Mahgoub and Elias Yaacoub.

- DURLLCON: Deep Reinforcement Learning for URLLC Optimization in Multi-Edge Networks.
  Authors: Heba Dawoud, Shuja Ansari, Amr Mohamed, Muhammad Imran, and Olaoluwa Popoola.

- Effective Transparent Monitoring of Personal Data.
  Authors: Talha Abdullah Punjabi, Ahmad Qadeib Alban, and Mahmoud Barhamgi.

- A Mini Review on Purchaser Security in the Metaverse: Challenges and Solutions.
  Authors: Mohammad Aloudat, Mahmoud Barhamgi, and Elias Yaacoub

Tuesday 03 December, 2024

Gala Dinner (6:00 - 9:00)
Yasmine Palace (Pearl area)

Wednesday 04 December, 2024
WISE2024 – Technical Sessions (*in parallel*)

Session 21 – *Security & Privacy*

Chair: Arash Mahboubi (Charles Sturt University)
Online Link:
Room: B114

- Open Research Challenges for Private Advertising Systems under Local Differential Privacy.
  Authors: Matilde Tullii, Solenne Gaucher, Hugo Richard, Eustache Diemert, Vianney Perchet, Alain Rakotomamonjy, Clément Calauzènes and Maxime Vono.

- Industry-Specific Vulnerability Assessment.
  Authors: Mohammed Al Kinoon, Hattan Althebeiti, Ali Al Kinoon, Saeed Salem, Manar Mohaisen and David Mohaisen.

- Blockchain-Driven Medical Data Shamir Threshold Encryption with Attribute-Based Access Control Scheme.
  Authors: Wei Shen, Qian Zhou and Jiayang Wu.

- Smart Contracts Vulnerability Detection Using Transformers.
  Authors: Riham Badra, Layth Sliman and Amine Dhraief.

- Weibo-FA: A Benchmark Dataset for Fake Account Detection in Weibo Platform.
  Authors: Zhiqi Li, Weidong Fang and Wuxiong Zhang.

- More Than Just a Random Number Generator! Unveiling the Security and Privacy Risks of Mobile OTP Authenticator Apps.
  Authors: Muhammad Ikram I Wayan Budi Sentana, Hassan Asghar, Mohamed Ali Kaafar, and Michal Kepkowski.

- Synthetic Data Generation: Limits and Improvement of Avatar Data.
  Authors: Antoine Boutet, Thomas Lebrun, Tristan Allard, Sébastien Gambs, Louis Beziaud and Mohamed Maouche

- A Scalable Approach for Improving IoT Healthcare Systems with Privacy and Permissioned Blockchain.
  Authors: Arije Yahyaoui, Sonia Kotel, Fatma Sbiaa, Lazhar Hamel, Aida Lahouij and Raouda Maraoui Kamoun

Session 22 – *Query Processing & Information Extraction*

Chair: Hossein Fani (University of Windsor)
Online Link:
Room: B116

- RePair My Queries: Personalized Query Reformulation via Conditional Transformers.
  Authors: Yogeswar Lakshmi Narayanan and Hossein Fani

- DORA: A Reliability-Associated Query Optimization Framework for Plan Selection.
  Authors: Chaofan Zhao and Jing Ren.

- REXIO: Indexing for Low Write Amplification by Reducing Extra I/Os in Key-Value Store under Mixed Read/Write Workloads.
  Authors: Zizhao Wang, Qiang Qu, Nan Han, Zhelang Deng, Yizhuo Ma, Xiaowen Huang and Jintao Meng

- Enhancing Multi-Hop Complex Question Answering with LLM-based Pseudo-Document Generation and Adaptive Retrieval.
  Authors: Jin Zhou, Zhi Zheng, Yuanjie Lyu and Tong Xu

- ITRA: Incremental Task Replanning Algorithm for multi-UAV Based on Centralized-Distributed Negotiation.
  Authors: Peng Tian, Xiangyu Shan, Xinpeng Lu, Xueqing Li and Junwu Zhu

- Early Discovery of Key Innovative Publications by Analyzing Emerging Topic Trends.
  Authors: Junfeng Wu, Xiangmin Zhou, Guangyan Huang, Borui Cai, Guang-Li Huang, Hui Zheng, Chi-Hung Chi and Jing He

8:10 – 10:30

Session 23 – *Graph Data Management*
Chair: Shiori Hironaka (Kyoto University)
Online Link:
Room: B103

- Scalable Optimization of Graph Pattern Queries Using Summary Graphs.
  Authors: Xiaoying Wu, Michael Lan, Md Rakibul Hasan and Dimitri Theodoratos

- Combining Knowledge Graphs and NLP to Analyze Instant Messaging Data in Criminal Investigations.
  Authors: Riccardo Pozzi, Valentina Barbera, Renzo Alva Principe, Davide Giardini, Riccardo Rubini and Matteo Palmonari.

- G-ETI: Incorporating Graph Information for Improved Unsupervised Event Type Induction.
  Authors: Lingzhi Xiang, Qing Li, Xiang Li and Xingchun Diao

- Estimation of Graph Features Based on Random Walks Using Neighbors' Properties.
  Authors: Tsuyoshi Hasegawa, Shiori Hironaka and Kazuyuki Shudo

- SemMatch: Semantics-Aware Matching for Causal Inference over Knowledge Graphs.
  Authors: Hao Huang and Maria-Esther Vidal

Session 24 – *PhD Symposium*
Chair: Amjad Rattrout (Grenoble University)
Online Link:
Room: B104

- iCNN-LSTM: An incremental CNN-LSTM based ransomware detection system.
  Authors: Jamil Ispahany, MD Rafiqul Islam, M. Arif Khan, and MD Zahidul Islam.

- A Phishing Website Detection System Based on Hybrid Feature Engineering with SHAP Explainable Artificial Intelligence Technique.
  Authors: Norah Alsuqayh, Abdulrahman Mirza and Areej Alhogail.

- An experimental study on the performance of post-Quantum lightweight cryptosystems in the context of IoT/NFC.
  Authors: José María Alonso India, Ayman El Hajjar, and Tamas Kiss

- Low-Resource Dataset Synthetic Generation for Hate Speech Detection.
  Authors: Adrián Girón, Guillem Collell, Fadi Hassan, Javier Huertas-Tato, and David Camacho

- Leveraging Optimization Techniques for Effective Arabic Query Expansion.
  Authors: Azzah Allahim and Asma Cherif

- FMM-RNS: A fast HMM map matching method based on road network simplification.
  Authors: Fei Meng, Chao Chen, Shangzhi Guo, Ruiyuan Li, and Jiale Zhao

- Context-Aware Selection of Machine Learning as a Service (MLaaS) in IoT Environments.
  Authors: Keya Patel, Sajib Mistry, Deepak Kanneganti, and Aneesh Krishna.

Session 25 – *Trustworthy Machine Learning*
Chair: David Mohaisen (University of Central Florida)
Online Link:
Room: B105

- SARA: A Sparsity-Aware Efficient Oblivious Aggregation Service for Federated Matrix Factorization.
  Authors: Yifeng Zheng, Tianchen Xiong, Huajie Ouyang, Songlei Wang, Zhongyun Hua and Yansong Gao

- VizardFL: Enabling Private Participation in Federated Learning Systems.
  Authors: Yichen Zang, Chengjun Cai, Wentao Dong and Cong Wang

- Deceptive Waves: Embedding Malicious Backdoors in PPG Authentication.
  Authors: Zeming Yao, Lin Li, Leo Yu Zhang, Fusen Guo, Chao Chen and Jun Zhang.

- Exposing the Limitations of Machine Learning for Malware Detection Under Concept Drift.
  Authors: Ahmed Abusnaina, Afsah Anwar, Muhammad Saad, Abdulrahman Alabduljabbar, Rhongho Jang, Saeed Salem and David Mohaisen.

- Intellectual Property Protection of Diffusion Models via the Watermark Diffusion Process.
  Authors: Sen Peng, Yufei Chen, Cong Wang and Xiaohua Jia

10:30-11:00	Coffee Break

Wednesday 04 December, 2024
Keynote @ Auditorium A128

11:00 - 12:00	Keynote 6: *Where Are We in the Journey to A Knowledgeable Assistant?*	• Speaker: Dr. Xin Luna Dong, Meta (Facebook) • Session Chair: **Hua Wang (Victoria University)**
12:00 – 13:30	**Lunch Break**	

Wednesday 04 December, 2024
WISE2024 – Technical Sessions (*in parallel*)

13:30 - 15:00

Session 26 – Security & Privacy
Chair: Layth Sliman (Efrei)
Online Link:
Room: B114

- **Keynote Talk:** *Security Assurance*, **Dr. Basel Katt, (Norway University)**
- A Lightweight Detection of Sequential Patterns in File System Events During Ransomware Attacks.
  Authors: Arash Mahboubi Hang Thanh Bui, Hamed Aboutorab, Khanh Luong, Seyit Camtepe, and Keyvan Ansari.
- Detection and Mitigation of Backdoor Attacks on x-Apps.
  Authors: Rouaa Naim, Hams Gelban and Ahmed Badawy.
- Cohesive database neighborhoods for differential privacy: mapping relational databases to RDF.
  Authors: Sara Taki, Adrien Boiret, Cédric Eichler and Benjamin Nguyen
- Combining Uncensored and Censored LLMs for Ransomware Generation.
  Authors: Muhammad Mudassar Yamin, Ehtesham Hashmi and Basel Katt.

Session 27 – Query Processing & Information Extraction
Chair: Feng Zhang (Renmin University of China)
Online Link:
Room: B116

- Enhancing RAG's Retrieval via Query Backtranslations.
  Authors: Delaram Rajaei, Zahra Taheri and Hossein Fani.
- Hierarchical Indexing for Interactive Zooming of Document Clusters.
  Authors: Hala Saadeh and Joe Tekli.
- Distributed k-hop Query Powered by an Asynchronous Framework.
  Authors: Jinlong Zheng, Yujie Lu and Weiguo Zheng.
- Contract Clause Extraction Using Question- Answering Task.
  Authors: Bajeela Aejas, Abdelhak Belhi and Abdelaziz Bouras

Session 28 – Graph Data Management
Chair: Dr. Salima Benbernou (Université Paris Cité)
Online Link:
Room: B103

- RPQBench: A Benchmark for Regular Path Queries on Graph Data.
  Authors: Hui Wang, Xin Wang, Menglu Ma, and Yiheng You.
- Two Birds One Stone: Dual-Role Path Based Subgraph Matching Using Partial Evaluation.
  Authors: Chengguo Li, Xin Wang, Yongqi Yin and Hui Wang.
- KRAFT: Leveraging Knowlegde Graphs for Interpretable Feature Generation.
  Authors: Mohamed Bouadi, Arta Alavi, Salima Benbernou, and Mourad Ouziri.
- Neuralizing Graph Edit Distance Computation with Fine-Grained Matching Cost Prediction.
  Authors: Faye Wang, Yu Liu and Lei Zou

Session 29 – Text & Sentiment Analysis
Chair: Jiao Yin (La Trobe University)
Online Link:
Room: B104

- Explaining a Deep Learning Model for Aspect-Based Sentiment Analysis Using SHAP.
  Authors: Kelvin Z. Yeung, Flavius Frasincar, and Finn van der Knaap
- Knowledge Injection from a Domain Sentiment Ontology in an Attention Neural Network for Aspect-Based Sentiment Classification.
  Authors: Charlotte Visser and Flavius Frasincar

- Multilingual, Cross-lingual, and Unilingual Models for ABSC.

  Authors: Steinar Horst and Flavius Frasincar

- From Data to Insights: Constructing and Evaluating a Hospitality Dataset for Quadruple Aspect-Based Sentiment Analysis.
  Authors: Marwah Alharbi, Jiao Yin, Yuan Miao, and Jinli Cao

- A Cross-Lingual Meta-Learning Method Based on Domain Adaptation for Speech Emotion Recognition.
  Authors: David-Gabriel Ion, Răzvan-Alexandru Smădu, Dumitru-Clementin Cercel, Florin Pop and Mihaela-Claudia Cercel

Session 30 – Trustworthy Machine Learning

Chair: Ladjel Belatreche (Ladjel Bellatreche (ENSMA)
Online Link:
Room: B105

- Evaluating Contrastive and Non-Contrastive Explanations for Language Models: A Study on Faithfulness and Plausibility.
  Authors: Yousra Chahinez Hadj Azzem, Fouzi Harrag and Ladjel Bellatreche

- Model Extraction Attacks on Privacy-Preserving Deep Learning based Medical Services.
  Authors: Xinqian Wang, Xiaoning Liu, Xun Yi, Xuechao Yang and Iqbal Gondal.

- On the Alignment of Group Fairness with Attribute Privacy.
  Authors: Jan Aalmoes, Vasisht Duddu and Antoine Boutet

Wednesday 04 December, 2024		
Keynote @ Auditorium A128		
15:00 - 15:45	Keynote 7: *AI for Positive Digital Privacy: Learnings and Frontiers*	• Speaker: Dr. Hamza Harkous, Google • Session Chair: Ahmad Badawy (QU).
15:45 – 16:00	**Coffee Break**	
16:00 – 17:00	Industrial Panel	Experts: • Hamza Harkous, Google Research • Dr. Xin Luna Dong, Meta (Facebook) • Dr. Su Lin Blodgett (Microsoft Research). Moderator: • Dr. Ahmad Badawy (Qatar University).

Thursday 05 December, 2024
WISE2024 – Technical Sessions (*in parallel*)

8:10 – 10:30

Session 31 – *PhD Symposium*
Chair: Saeed Salem (Qatar University)
Online Link:
Room: B103

- Web Open Data to SDG Indicators: Towards an LLM-Augmented Knowledge Graph Solution.
  Authors: Wissal Benjira, Faten Atigui, Bénédicte Bucher, Malika Grim-Yefsah, and Nicolas Travers.

- Leveraging Sentence-Transformers to Overcome Query-Document Vocabulary Mismatch in Information Retrieval.
  Authors: Saber Zahhar, Nédra Mellouli, and Christophe Rodrigues.

- Time Distance Aware for Multi-component Graph Collaborative Filtering.
  Authors: Tseesuren Batsuuri, Shan Xue, Jian Yang, and Jia Wu.

- Scientific Documents Recommendation Based on Graph Convolutional Network.
  Authors: Jianmin Li

Session 32 – *AI Applications*
Chair: Mohamed Essaid Khanouche (LIRIS)
Online Link:
Room: B104

- **Keynotes: *AI for web safety*, Dr. David Camacho, (Madrid University), Hua Wang (Victoria University)**

- Enhancing Customer Service Efficiency in the Holy Makkah Municipality Using Machine Learning.
  Authors: Amal Alharbi and Samaher Alozayri

- Motivation, Concerns, and Attitudes Towards AI: Differences by Gender, Age, and Culture.
  Authors: Mohammad Mominur Rahman, Areej Babiker and Raian Ali

- DefectClassifierX: A Cross-Platform Automated Pattern Classification System for Wafer Defects.
  Authors: Amjad Rattrout, Hussein Younis and Ahmad Bsiesy

- Safe-Path: A Perspective on Next-Generation Road Safety Recommendations.
  Authors: Khedher Ibtissem, Faci Noura, and Faiz Sami

- Unsupervised and Dynamic Dendrogram-based Visualization of Medical Data.
  Authors: Angela Moufarrej, Abdulkader Fatouh and Joe Tekli

- Federated Deep Learning Models for Stroke Prediction.
  Authors: Asma Mansour, Olfa Besbes and Takoua Abdellatif

Session 33 – *Web Systems & Architectures*
Chair: Catarina Ferreira Da Silva (ISCTE-University).
Online Link:
Room: B105

- Towards Blockchain like SOA.
  Authors: Wafa Ben Slama Souei, Benoit Charroux, Layth Sliman and Raoudha Ben Djemaa

- Clustering-Based Diversity in Service Recommendation.
  Authors: Karim Benouaret and Mohamed Essaid Khanouche

- Resource-based Blockchain Integration in Agri-Food Supply Chains.
  Authors: Devis Bianchini, Valeria De Antonellis, Massimiliano Garda and Michele Melchiori

- Acceptance and use of smart home technologies: a focus on Portugal.
  Authors: João Paulo Moleiro Domingues and Catarina Ferreira da Silva

Session 34 – *Web-for-Good Workshop*
Chair: Dr. Esma Aimeur (Montréal University)
Online Link:
Room: B114

- Prompt Strategies for Sarcastic Meme Detection: A Comparative Analysis.
  Authors: Faseela Abdullakutty, Somaya Al-Maadeed, and Usman Naseem

- Deepfake Detection in Cancer Medical Imaging Using CNN Architectures.
  Authors: Dima Talal Alhalabi, Moatsum Alawida, Belkacem Chikhaoui, and and Hala Samer Hamadeh

- Strengthening Cybersecurity: The Influence of Student Behavior, Perceived Factors, and Mitigating Strategies on Phishing Attack Perception.
  Authors: Saleh Alqahtani, Priyadarsi Nanda and Manoranjan Mohanty

- Towards Transparent and Ethical Coffee and Cocoa Supply Chains: The Role of Blockchain, NFTs Encrypted, and Smart Contracts.
  Authors: Khanh Hong Vo, Triet Minh Nguyen, Bang Le, Hung Nguyen, Hieu Doan, Bao Tran Quoc, Anh The Nguyen, and Ngan Kim Thi Nguyen

Session 35 – *AIWDA Workshop*
Chair: Belkacem Chikhaoui, Zakaria Maamar (University of Doha for Science and Technology)
Online Link:
Room: B116

- A Hypertension Early Warning Model Combining Generative Adversarial Networks and Long Short-Term Memory Neural Networks.
  Authors: Shaofu Lin, Ziqian Qiao, Jianhui Chen, and Zhisheng Huang

- Discovering Causal Relationships in Noisy Web Data for Sentiment Classification Using Attention Mechanisms.
  Authors: Miloud MIHOUBI, Meriem ZERKOUK, and Belkacem CHIKHAOUI

- Psychological Profiling in Cybersecurity: A Look at LLMs and Psycholinguistic Features.
  Authors: Jean Marie Tshimula, D'Jeff K. Nkashama, Jean Tshibangu Muabila, Rene Manasse Galekwa, Hugues Kanda, Maximilien V. Dialufuma, Mbuyi Mukendi Didier, Kalala Kalonji, Serge Mundele, Patience Kinshie Lenye, Tighana Wenge Basele, Aristarque Ilunga, Christian N. Mayemba, Nathanael M. Kasoro, Selain K. Kasereka, Hardy Mikese, Pierre-Martin Tardif, Marc Frappier, Froduald Kabanza, Shengrui Wang, Ali Mulenda Sumbu, Xavier Ndona, Raoul Kienge-Kienge Intudi

- Dynamic Analysis of Influencer Impact on Opinion Formation in Social Networks.
  Authors: Omran Berjawi, Danilo Cavaliere, Giuseppe Fenza, and Rida Khatoun

- Environmental Sustainability of AI: Estimating CO2e Emissions Across Cloud, Edge, and Fog Paradigms.
  Authors: Elio Masciari and Enea Vincenzo Napolitano

- Artificial Intelligence for Trauma Registry in Emergency Departments.
  Authors: Ahmad Abdel-Hafez, Ben Gardiner, and Oussama Djedidi

- Blockchain and Encrypted NFTs: A New Paradigm for Intellectual Property Rights Management.
  Authors: Trung Phan, Khoa Tran, Khiem Huynh, Loc Van Cao Phu, Ngan Nguyen, Nam Tran Ba, Hieu Doan Minh, and Anh The Nguyen

- Urban Computing for Disease Prediction: Type 2 Diabetes Case.
  Authors: ALOULOU Hamdi, ABDULRAZAK Bessam, and MOKHTARI Mounir

10:30-11:00	**Coffee Break**

Thursday 05 December, 2024	
Keynote @ Auditorium A128	
11:00 - 12:00	Keynote 8: *The Art and Science of Writing Publishable Research - perspectives from an Editor in Chief*	• Dr. Schahram Dustdar (University of Vienna) • Session Chair: Dr. Bashar Nuseibeh (Open University).
12:00 – 13:30	**Lunch**

Thursday 05 December, 2024
WISE2024 – Technical Sessions (*in parallel*)

13:30 - 16:00

Session 36 – *Security & Privacy*
Chair: Basel Katt (NTNU)
Online Link:
Room: B103

Keynote Talk: "*Zero-Trust Architecture: Securing Next-Generation Networks*", Ahmed Refaey Hussein (University of Guelph)

- i-Right: Identifying and classifying GDPR user rights in fitness tracker and smart home privacy policies.
Authors: Alexia Dini Kounoudes, Georgia Kapitsaki and Ioannis Katakis
- AttackER: Towards Enhancing Cyber-Attack Attribution with a Named Entity Recognition Dataset.
Authors: Pritam Deka, Sampath Rajapaksha, Ruby Rani, Amirah Almutairi and Erisa Karafili.
- R-CONV: An Analytical Approach for Efficient Data Reconstruction via Convolutional Gradients.
Authors: Tamer Ahmed Eltaras, Qutaibah Malluhi, Alessandro Savino, Stefano Di Carlo and Adnan Qayyum.
- Privacy Preserving Behavioral Anomaly Detection in Dynamic Graphs for Card Transactions.
Authors: Farouk Damoun, Hamida Seba and Radu State

Session 37 – *AI Applications*
Chair: Mohamed Essaid Khanouche (LIRIS)
Online Link:
Room: B104

- Web-based AI Assistant for Medical Imaging: A Case Study on Predicting Spontaneous Preterm Birth via Ultrasound Images.
Authors: Weichen Bi, Zijian Shao, Yudong Han, Jiaqi Du, Yuan Wei, Lijuan Guo, Tianchen Wu, Shuang Li and Yun Ma.
- Satellite-Driven Deep Learning Algorithm for Bathymetry Extraction.
Authors: Xiaohan Zhang, Xiaolong Chen, Wei Han, Xiaohui Huang, Yunliang Chen, Jianxin Li and Lizhe Wang.
- Would You Trust an AI Doctor? Building Reliable Medical Predictions with Kernel Dropout Uncertainty.
Authors: Ubaid Azam, Imran Razzak, Shelly Vishwakarma, Hakim Hacid, Dell Zhang, and Shoaib Jameel.
- Empowering Visual Navigation: A Deep-Learning Solution for Enhanced Accessibility and Safety among the Visually Impaired.
Authors: Seyed Shahabadin Nasabeh, Santiago Meliá, Barbara Leporini, and Diana Gadzhimusieva.
- A Transformer and LSTM Model for Electricity Consumption Forecasting and User's Behavior Influence.
Authors: Laldja Ziani, Anis Chawki Abbes, Mohamed Essaid Khanouche, and Parisa Ghodous

Session 38 – *Web Systems and Architectures*
Chair: Noura Faci (UCBL)
Online Link:
Room: B105

- Deep Reinforcement Learning-based Dependent Task Offloading for QoS Optimization in Satellite Edge Computing.
Authors: Di Tian, Juan Chen, Peng Chen, Jie Zhong, Xi Li and Ling Xiong
- HIChain: A Hierarchical IoT Permissioned Blockchain with Edge Cloud Architecture.
Authors: Tinghao Feng, Zeshun Peng, Yanfeng Zhang, Xiaohua Li, Xiaomei Dong, and Ge Yu
- Leveraging Deep Learning-based Approach for IoT Service Composition through Local Service Selection.
Authors: Christson Awanyo and Nawal Guermouche
- An Efficient Device Placement Method for Distributed Training of Multi-branch Neural Network-based Remote Sensing Interpretation.
Authors: Ao Long, Yuewei Wang, Xiaohui Huang, Wei Han, Runyu Fan, Yunliang Chen and Jianxin Li
- On-Demand Bundling of Cloud and Edge Services.
Authors: Zakaria Maamar, Amel Benna, Sami Yangui, Mickaël Pezongo, and Ejub Kajan

Session 39 – *Data Analysis and Optimization*
Chair: Saeed Salem (Qatar University)
Online Link:
Room: B114

- Representation with Minimized Max-error in Optimal Piecewise Linear Approximation of Time Series Data.
Authors: Huanyu Zhao, Tongliang Li, Shiting Wen, Zhenyu Shu, Ke Deng, Jian Yang, and Chaoyi Pang
- A Big Data Drilling Method for Value Assessment of Leakage Data.
Authors: Zhaohui Zhang, Pei Zhang, Fujuan Xu, Yifei Tang, Dongxue Zhang, and Pengwei Wang
- An Effective Tag Assignment Approach for Billboard Advertisement.
Authors: Dildar Ali, Harishchandra Kumar, Suman Banerjee and Yamuna Prasad
- Two-Stage Trained Stacking Model for Univariate Time Series Forecasting.
Authors: Haoyu Wang, Bin Wang, Sitong Liu, Xiaochun Yang, Jiahe Wang and Shiyu Yu

Keynote @ Auditorium A128
15:30 – 16:00

Catuscia Palamidessi INRIA,
"*BaBE, an approach to improve fairness in machine learning predictions.*"

15

Session Chair: Mahmoud Barhamgi
Thursday 05 December, 2024
Conference Closing @ Auditorium A128

Doha Tour **16:00 – 19:00**