Tuesday, August 13, 2024

Session Chair: **Kazem Taghva**
University of Nevada, USA

07.00-07.20   Bayesian Optimization-Based CNN Model for Blood Glucose Estimation Using Photoplethysmography Signals
Saifeddin Alghlayini[1], **Mohammed Azmi Al-Betar[1]**, Mohamed Atef[2], and Ghazi Al-Naymat[1]
[1]Ajman University, UAE
[2]United Arab Emirates University, UAE

07.20-07.40   Comparative Analysis of Preprocessing Techniques for KNN Classification on the Diabetes Dataset
Vaman A. Saeed, Nawzat Sadiq Ahmed, and Bareen Haval Sadiq
Duhok Polytechnic University, Iraq

07.40-08.00   Exploratory Analysis of Gamblers' Financial Transactions to Mine Behavioral Pattern Data
Mohsen Larni[1], Sepideh Farivar[1], Piyush Puranik[1], Kasra Ghaharian[2], Lukasz Golab[3], and **Kazem Taghva[1]**
[1]University of Nevada, USA
[2]International Gaming Institute, University of Nevada, USA
[3]University of Waterloo, CA

08.00-08.20   Comprehensive Analysis of Iris Dataset Using K-Mean and Fuzzy K-Mean Clustering Algorithm
Bareen Haval Sadiq, Nawzat Sadiq Ahmed, and Omar Muhammed Ahmed
Duhok Polytechnic University, Iraq

08.20-08.40   Gender and Age Extraction from Audio Signal Using Convolutional Neural Network, MFCC and Spectrogram
Fazia Karaoui[1], Rachida Djeradi[2], and Amar Djeradi[2]
[1]University of science and technology LCPT/URSL/AALA, Algeria
[2]University of science and technology LCPTS/FGE, Algeria

08.40-09.00   Comparative Analysis of Decision Tree Algorithms Using Gini and Entropy Criteria on the Forest Cover Types Dataset
Omar M. Mustafa[1], Omer M. Ahmed[2], and **Vaman A. Saeed[3]**
[1]University of Zakho, Iraq
[2]Duhok Polytechnic University, Iraq
[3]Duhok Polytechnic University, Iraq

09.00-09.20	A Comparative Study of Speed Measurement Using Radar Guns and Pneumatic Counter **Soledad Segarra-Morales** and Adriana Torres Moreno Universidad Técnica Particular de Loja, Ecuador

09.20-10.20 **Panel**: **Breakthroughs in Data Science**

Moderator: **Guillermo Francia**, University of West Florida, USA

Panelists: **Roger Achkar**, American University of Science and Technology, Lebanon
Rajeev Kanth, Savonia University of Applied Sciences, Finland
Kazem Taghva, University of Nevada, USA

10.20-10.40 **BREAK**

ICR24-Session-6-IR **Health Informatics and Digital Imaging**
10.40-12.20, August 13, 2024 (In-person/Remote)

Session Chair: **Benard Wanjiru**
Radboud University, The Netherlands

10.40-11.00 A survey of AI Utilisation in High-Throughput Screening Systems Using Stem Cell Models
Lu Cao[1], Verena Schwach[2], and Fons Verbeek[1]
[1]Leiden Institute of Advanced Computer Science, The Netherlands
[2]University of Twente, Enschede, The Netherlands

11.00-11.20 Health Data Trustees: A Business Model Perspective
Sarah Kilz and Marija Radic
Fraunhofer Center for International Management and Knowledge Economy IMW, Germany

11.20-11.40 Fuzzy SVM and IoT Technology for Improved Fall Detection in Individuals with Non-Voluntary Movements
Mohammad Kchouri[1], **Hussein Hazimeh**[2], Norharyati Harum[1], Moustafa Harb[3], and Firas Sami Fayad[4]
[1]Universiti Teknikal Malaysia Melaka, Malaysia
[2]Al Maaref University, Lebanon
[3]PROTEL IoT Lab, Lebanon
[4]Islamic University of Lebanon, Lebanon

| 11.40-12.00 | Predicting Coronary Heart Disease through Machine Learning Algorithms
Savina Mariettou[1], Constantinos Koutsojannis[2], and Vassilios Triantafillou[1]
[1]University of Peloponnese, Greece
[2]University of Patras, Patras, Greece |
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| 12.00-12.20 | The Potential of Digital Twins in Healthcare: Evaluation of a Clinical Decision Support System for Chronic Inflammatory Bowel Disease
Marija Radic[1], Agnes Vosen[1], **Anika Teichert**[1,] Friederike Bach[1,] Ann Christina Foldenauer[2], Kevin Frank[2], Michaela Köhm[2,3], and Irina Blumenstein[2,3]
[1]Fraunhofer Center for International Management and Knowledge Economy IMW, Germany
[2]Fraunhofer Institute for Translational Medicine and Pharmacology ITMP, Germany
[3]Johann Wolfgang Goethe University Clinic, Frankfurt, Germany |
| 12.20-01.20 | **LUNCH BREAK (ON YOUR OWN)** |

ICR24-Session-7-IR Computer and Network Security
01.20-03.00, August 13, 2024 (In-person/Remote)

| Session Chair: | **Guillermo Francia**
University of West Florida, USA |
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| 01.20-01.40 | Survey on Cryptoprocessors Advances and Technological Trends
Elena Kakoulli[1,2] and Eleftherios Zacharioudakis[1,3]
[1]Neapolis University Pafos, Cyprus
[2]Cyprus University of Technology, Cyprus
[3]National Technical University of Ukraine, Ukraine |
| 01.40-02.00 | Analysis of eSIM/iSIM for Critical Communications
Shahzana Liaqat and Geir Myrdahl Køien
University of South-Eastern Norway, Norway |
| 02.00-02.20 | Authenticating IoT Devices using Multimodal Biometric and Blockchain: A Personalised Healthcare Scenario
Farnaz Farid and Farhad Ahamed
Western Sydney University, Australia |
| 02.20-02.40 | Towards Automated Access Control Policy Mining via Structured Attribute-Based Access Control
Anna Bamberger and Maribel Fernández
King's College London, UK |

02.40-03.00   Machine Learning Systems for Connected and Autonomous Vehicle (CAV) Synthesized Datasets
Guillermo Francia, III, Ben Cyphers, and Eman El-Sheikh
University of West Florida, USA

03.00-03.20   **BREAK**

Session Chair: Shady Salama
Kobe University, Japan

03.20-03.40   Inclusive Opportunities for Young Students with Disabilities through Mixed Reality
Emma Mencaci[1], **Mario Covarrubias Rodriguez[2]**, Sabrina Roma[1], and Domenico Bodega[3]
[1]ASPOCOLLEGE, Italy
[2]Politecnico di Milano, Italy
[3]Università Cattolica del Sacro Cuore, Italy

03.40-04.00   Detection and Classification of Skin Cancer Using Custom-built CNN
Mazdak Maghanaki, Mohammad Shahin, F. Frank Chen, and Ali Hosseinzadeh
The University of Texas at San Antonio, USA

04.00-04.20   Technological Influence on the Measurement of Quality of Life in Persons with Autism Spectrum Disorder
Gema Benedicto-Rodriguez[1], **Vanessa Zorrilla-Muñoz[2,3]**, Eduardo Fernández [2,4], and Jose Manuel Fernández [1]
[1]Polytechnic University of Cartagena, Spain
[2]Miguel Hernandez University, Spain
[3]University Institute on Gender Studies, Spain
[4]Biomedical Research Network Center (CIBER-BBN), Spain

04.20-04.40   Unveiling Depression: Monitoring Daily Activity Changes for Anomalies
Rana Shaker[1], Nada Ibrahim[1], and Slim Abdennadher[2]
[1]German University in Cairo, Egypt
[2]German International University, Egypt

04.40-05.00	Categorization of Arabic Medical Questions Using a Deep Learning Approach

Mohammed Bahbib[1], Lahcen Tamym [2], Majid Ben Yakhlef [1], and Lyes Benyoucef [2]

[1]Laboratory of Engineering Sciences Faculty Polydisciplinaire Taza, Morocco

[2]Aix-Marseille University, University of Toulon, France

05.00-05.20	Agent-Based Modeling: Investigating Technological Perception's Impact on Quality of Life in Older Adults with Age-Related Macular Degeneration

Ángel Parra-Sanchez[1], **Vanesa Zorrilla-Muñoz**[2,3], Gema Martinez-Navarrete[1], and Eduardo Fernández [1,4]

[1]University Miguel Hernández of Elche, Spain

[2]Miguel Hernandez University, Spain

[3]University Institute on Gender Studies, Spain

[4]Biomedical Research Network Center (CIBER-BBN), Spain

05.20-05.40	Wireless Polysomnography Design to Identify Sleep Stages

Abbas Lateef Salman, Auns Qusai Al-Neami, and [Dunia Tahseen Nema Al-Aridhi]

Al-Nahrain University, Iraq

05.40-06.40	Keynote Speech: Data Protection Mechanisms and Reidentification Risk Using Metric Learning

Professor Vicenç Torra

Umeå University, Sweeden