

# THE 5<sup>TH</sup> INTERNATIONAL CONFERENCE ON DATA ANALYTICS FOR BUSINESS AND INDUSTRY



23-24 OCTOBER 2024, KINGDOM OF BAHRAIN

ORGANIZED BY



IN COLLABORATION WITH

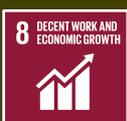


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## TRACKS

BIG DATA  
DATA MINING  
E-COMMERCE  
OPTIMIZATION  
DATA SCIENCE  
RISK ANALYSIS  
DATA ANALYTICS  
CLOUD COMPUTING  
SECURITY ANALYSIS  
DATA VISUALIZATION  
BUSINESS ANALYTICS  
FINANCIAL ANALYTICS  
INSURANCE STATISTICS  
PATTERN RECOGNITION  
PROJECT MANAGEMENT  
BUSINESS INTELLIGENCE  
WOMEN IN DATA SCIENCE  
STATISTICS IN IT INDUSTRIES  
SUPPLY CHAIN MANAGEMENT  
APPLICATIONS OF DATA SCIENCE  
ENERGY SYSTEMS AND EFFICIENCY  
QUALITY CONTROL AND RELIABILITY  
IMAGE ANALYSIS AND TOMOGRAPHY  
STATISTICAL AND FINANCIAL MODELING  
BIOINFORMATICS & HEALTH POLICY DECISION MAKING  
ARTIFICIAL INTELLIGENCE FOR BUSINESS AND INDUSTRY



CONFERENCE MICROSOFT TEAMS

[HTTPS://SHORTURL.AT/FSUUP](https://shorturl.at/fsuup)



# DAY1: WED 23 OCTOBER 2024

09:00 – 09:10	OPENING CEREMONY	WELCOMING NOTES
09:10 – 09:20		DR. FUAD AL ANSARI PRESIDENT OF UNIVERSITY OF BAHRAIN
09:20 – 09:30		DR. ATHRAA ALMOSAWI DEANSHIP OF GRADUATE STUDIES AND SCIENTIFIC RESEARCH
09:30 – 09:40		PROF. MOHAMMED EL-HILO REPRESENTATIVE OF THE CONFERENCE STEERING COMMITTEE
09:40 – 10:10	KEYNOTE SPEECH	 <b>KEYNOTE SPEECH BY DR. CHEDDAD ABBAS</b>  VISUAL COMPUTING OF OLD HANDWRITTEN SCANNED DOCUMENTS: INTRODUCING THE SWEDISH OPEN-ACCESS DATASETS
10:10 – 10:30		<b>BREAK</b>
10:30 – 11:25 SESSION 1	WORKSHOP#1	<b>ViF (FORENSICS) WORKSHOP</b> BY DR. CHEDDAD ABBAS
<b>BREAK</b> 11:35 – 12:30 SESSION 2		This workshop deals with image visual analytics with a focus on visual digital forensics/cybersecurity with a discussion for the science and art of securing network transmission of confidential data via images as digital carriers.
12:30 – 13:30		<b>BREAK</b>
13:30 – 14:00	MEETING	  BY DR. SAWSAN HILAL
14:00 – 14:10		<b>BREAK</b>
14:10 – 15:05 SESSION 1	WORKSHOP#2	<b>AI FOR BUSINESS DECISION WORKSHOP</b> BY DR. MOHAMMAD ALLAYMOUN
<b>BREAK</b> 15:15 – 16:10 SESSION 2		This workshop is designed to provide a comprehensive understanding of how AI can be leveraged to enhance business decision-making processes through exploration for popular AI tools and technologies and discovering their practical implementation.

# DAY2: THU 24 OCTOBER 2024

08:00 – 09:00

TECHNICAL SUPPORT

09:00 – 09:20

09:20 – 09:40

09:40 – 10:00

10:00 – 10:20

10:20 – 10:40

SESSION **A1**

SESSION **A2**

SESSION **A3**

SESSION **A4**

10:40 – 11:00

BREAK

11:00 – 11:20

11:20 – 11:40

11:40 – 12:00

12:00 – 12:20

12:20 – 12:40

12:40 – 13:00

SESSION **B1**

SESSION **B2**

SESSION **B3**

SESSION **B4**

13:00 – 13:10

BREAK

13:10 – 13:30

CLOSING REMARKS

END OF CONFERENCE

# CONFERENCE PARALLEL SESSIONS

DAY2: 24 OCTOBER 2024

SESSION 

**SESSION AI**  **09:00 – 10:40**

**STROKE DETECTION AND DIAGNOSIS IN CT SCAN BASED ON DEEP LEARNING**

**Foo Lee Yi; Muhammad Ehsan Rana; Vazeerudeen Abdul Hameed**

**SESSION AI**  **09:00 – 10:40**

**A HYBRID ANT COLONY OPTIMIZATION MODEL FOR PARKINSON'S DISEASE CLASSIFICATION  
BASED ON SYNTHETIC MINORITY OVERSAMPLING TECHNIQUE**

**Yakub Kayode Saheed; Oluwadamilare Harazeem Abdulganiyu; Mustapha Abdulsalam;  
Kaloma Usman Majikumna; Mekila Mbayam Olivier; Musa Mustapha**

**SESSION AI**  **09:00 – 10:40**

**A FINE-TUNED CONVOLUTIONAL NEURAL NETWORK WITH ADDITIONAL CONVOLUTION  
FOR PLANT LEAF DISEASE DETECTION**

**Apoorva Sharma; Kalpna Guleria; Shagun Sharma**

**SESSION AI**  **09:00 – 10:40**

**GENERATING MRI IMAGES BASED ON CLINICAL TEXT  
USING DIFFUSION MODELS FOR BREAST CANCER**

**Arwa Alali; Nabil Hewahi**

**SESSION AI**  **09:00 – 10:40**

**CERTAIN INVESTIGATIONS ON CLASSIFICATION OF AMYOTROPHIC LATERAL SCLEROSIS**

**Shamik Tiwari; Saikat Gochhait; Ritam Chatterjee**

# CONFERENCE PARALLEL SESSIONS

DAY2: 24 OCTOBER 2024

SESSION **A2**

**SESSION A2**  **09:00 – 10:40**

**A STUDY ON ADVANCED TECHNIQUES FOR FRACTIONAL DIFFERENTIAL EQUATIONS:  
INTEGRATING THE FROBENIUS METHOD, ZZ TRANSFORM,  
AND DIVERSE MACHINE LEARNING APPROACHES**

**Prabakaran Raghavendran; Tharmalingam Gunasekar; Saikat Gochhait**

**SESSION A2**  **09:00 – 10:40**

**STRENGTHENING CRYPTOGRAPHIC PROTOCOLS:  
LEVERAGING THE SOHAM TRANSFORM'S UNIQUE CAPABILITIES**

**Prabakaran Raghavendran; Tharmalingam Gunasekar; Saikat Gochhait**

**SESSION A2**  **09:00 – 10:40**

**DISTRIBUTING CLASSICAL INFORMATION VIA QUANTUM SECRET SHARING TECHNIQUE**

**Esraa Salem Elkhoully; Nasser Metwally; Salama Ali; M. Y. Abd-Rabbou**

**SESSION A2**



**09:00 – 10:40**

**INITIAL STATE TIME-DEPENDENT QUANTUM GAME**

**Asmaa Tarek mohamed Makeam-Allah; M. Y. Abd-Rabbou; Nasser Metwally**

**SESSION A2**



**09:00 – 10:40**

**DEVELOPING A STRATEGIC FRAMEWORK FOR CLOUD ADOPTION IN HIGHER EDUCATION**

**Gurrah Ul Qaumi; Muhammad Ehsan Rana; Vazeerudeen Abdul Hameed;  
Khajitpan Makaratat Kritpolviman**

**CONFERENCE PARALLEL SESSIONS**

**DAY2: 24 OCTOBER 2024**

**SESSION **A3****

**SESSION A3**  **09:00 – 10:40**

**LOAD SHIFTING OF RESIDENTIAL LOAD FOR DEMAND SIDE MANAGEMENT  
USING TUNICATE SWARM ALGORITHM**

**Pranoti D Vaidya; Saikat Gochhait; Tharmalingam Gunasekar; Prabakaran Raghavendran**

**SESSION A3**  **09:00 – 10:40**

**TRAJECTORY OPTIMIZATION FOR RESSOURCE DATA COLLECTION IN UAV ENABLED IOT:  
A COMPARATIVE STUDY BETWEEN DINKELBACH, NON-CONVEX METHODS, NEWTON'S METHOD,  
GENETIC ALGORITHM, AND CONJUGATE GRADIENT METHOD**

**Hajar Arabe-rami; Saad Chakkor; Mostafa Baghour**

**SESSION A3**  **09:00 – 10:40**

**SKILL FACTOR AS A KEY INDICATOR OF DIGITAL DEXTERITY IN EMERGING COUNTRIES:  
CLUSTER ANALYSIS APPROACH**

**Elsayed Elamir**

**SESSION A3**



**09:00 – 10:40**

**DESIGN OF AN ITERATIVE MODEL FOR AUTOMATED ONTOLOGY LEARNING AND ADAPTIVE SCHEMA EVOLUTION USING DEEPONTOLEARN AND SCHEMAFLEX**

**Vijay Anand R; Madala Guru Brahmam; Saikat Gochhait; M Rama Krishnam Raju;  
Velivela Lakshmi Kanth Chowdary; P Bhagya Madhuri**

**SESSION A3**



**09:00 – 10:40**

**INTEGRATION OF STRATIFIED KFOLD CROSS VALIDATION TO ENHANCE PREDICTION ACCURACY:  
A COMPARISON STUDY**

**Jayrhom R. Almonteros; Junrie B. Matias**

# CONFERENCE PARALLEL SESSIONS

DAY2: 24 OCTOBER 2024

SESSION **A4**

**SESSION A4**  **09:00 – 10:40**

**LEVERAGING TOPIC MODELING AND SENTIMENT ANALYSIS  
TO IMPROVE DIGITAL BANK APPLICATIONS**

**Dedy Suryadi; Kevin Owen Padlan**

**SESSION A4**  **09:00 – 10:40**

**EVALUATING AUTOMATIC TRANSCRIPTION MODELS UTILISING CLOUD PLATFORMS**

**Kevin Meehan; Francis McDermott; Naomi Petropoulos**

**SESSION A4**  **09:00 – 10:40**

**THE TREND OF PUBLISHED RESEARCH FOR PREDICTING BANKRUPTCY VIA MACHINE LEARNING:  
A BIBLIOMETRIC ANALYSIS**

**Ahmed Abdulaziz Khudhur; Minwir Al-Shammari**

**SESSION A4**  **09:00 – 10:40**

**HETEROGENOUS RANKING CUMMULATIVE SYSTEM - HERACLES**

**Nikos Loukeris**

**SESSION A4**  **09:00 – 10:40**

**STOCK PORTFOLIO OPTIMIZATION USING METAHEURISTIC AND DEEP LEARNING ALGORITHMS:  
EVIDENCE FROM BOURSA KUWAIT**

**Maitham M. AlMuharraqi; Qaiser Munir**

**CONFERENCE PARALLEL SESSIONS**

**DAY2: 24 OCTOBER 2024**

**SESSION BI**

**SESSION B1**  **11:00 – 13:00**

**PREDICTING ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES WITH MACHINE LEARNING:  
A SYSTEMATIC LITERATURE REVIEW**

**Minwir Al-Shammari; Fatima Binzaiman; Kubra Maki Edhrabooh; Muna Al-Romaihi**

**SESSION B1**  **11:00 – 13:00**

**ESG SCORE PREDICTION USING MACHINE LEARNING, GAP ANALYSIS**

**Kubra Maki Edhrabooh; Muna Al-Romaihi; Fatima Binzaiman; Minwir Al-Shammari**

**SESSION B1**  **11:00 – 13:00**

**ASSESSING THE ECONOMIC AND HEALTH SUSTAINABILITY CORRIDOR IN SUB-SAHARAN AFRICA**

**Ala Fathi; Joseph Kolee**

**SESSION B1**  **11:00 – 13:00**

**COMPARISON ANALYSIS OF MACHINE LEARNING MODELS  
FOR IDENTIFICATION OF PESTICIDE RESIDUE**

**Masooma Alghawas; Sawsan Hilal**

**SESSION B1**  **11:00 – 13:00**

**AN UPGRADED CONVOLUTIONAL NEURAL NETWORKS MODEL  
FOR TOMATO LEAF DISEASE DETECTION**

**Himanshu Nawani; Kalpna Guleria; Shagun Sharma**

**SESSION B1**  **11:00 – 13:00**

**KNOWLEDGE GRAPHS-BASED HALAL FOOD PROVIDER  
INFORMATION SEARCH SYSTEM AT SURABAYA**

**Ganendra Aby Bhamakerti; Nur Aini Rakhmawati**

**CONFERENCE PARALLEL SESSIONS**

**DAY2: 24 OCTOBER 2024**

**SESSION B2**

**SESSION B2**  **11:00 – 13:00**

**AUTOMATED EMOTION RECOGNITION FROM FACIAL EXPRESSIONS  
USING CONVOLUTIONAL NEURAL NETWORK**

**Syed Aman Hussain; Nareddy Yashwanth Reddy; Junnuthula Srivardhan;  
Ajay Sharma, Er.; Shamneesh Sharma; Saikat Gochhait**

**SESSION B2**  **11:00 – 13:00**

**HUMAN ACTIVITY RECOGNITION:  
FIGHT DETECTION USING LONG TERM RECURRENT CONVOLUTIONAL NETWORK (LRCN)**

**Nagareddy Jahnvi; E. S. K. Bharadwaj; Ajay Sharma, Er.; Shamneesh Sharma;  
Ankur Sodhi; Saikat Gochhait**

**SESSION B2**  **11:00 – 13:00**

**BUILDING SYSTEM TO RECOGNIZE DEAF LANGUAGE  
USING BLAZEPALM AND LSTM NETWORK MODEL**

**Ben Do Van; Thang Phan Duc; Trung Nguyen Thanh; Xuan Nguyen Thi;  
Minh Doan Nhat; Phat Huu Nguyen; Quang Tran Minh**

**SESSION B2**  **11:00 – 13:00**

**GENERATING CAPTIONS FOR IMAGES THROUGH DEEP LEARNING METHODS**

**Hooreya Khunji; Nabil Hewahi**

**SESSION B2**  **11:00 – 13:00**

**CLOUD-BASED APPLICATION TO FACILITATE EMPLOYEE VOICE IN IT COMPANIES**

**Himani Choudhary; Deepika Pandita; Seema R Singh**

**CONFERENCE PARALLEL SESSIONS**

**DAY2: 24 OCTOBER 2024**

**SESSION B3**

**SESSION B3**  **11:00 – 13:00**

**CLUSTERING RENTAL HOUSES IN BAHRAIN USING K-MODES ALGORITHM**

**Hooreya Khunji; Ahmed M. Zeki**

**SESSION B3**  **11:00 – 13:00**

**COMPARING LINEAR REGRESSION, RANDOM FOREST AND SUPPORT VECTOR MACHINE  
FOR RENTAL HOUSE PRICE FORECASTING IN BAHRAIN**

**Hooreya Khunji; Ahmed M. Zeki**

**SESSION B3**  **11:00 – 13:00**

**VIRTUAL CLOTHES FITTING: LEVERAGING COMPUTER VISION AND DEEP LEARNING  
FOR A SEAMLESS ONLINE SHOPPING EXPERIENCE**

**Yee Qi Chan; Muhammad Ehsan Rana; Vazeerudeen Abdul Hameed**

**SESSION B3**



**11:00 – 13:00**

**SMALL AND MEDIUM ENTERPRISES' DIGITAL TRANSFORMATION INTENTION BASED ON THE  
TRADE-OFF THEORY: ROLE OF PERCEIVED BENEFIT AND PERCEIVED PRIVACY DISCLOSURE RISK**

**Bui Thanh Khoa; Tran Trong Huynh**

**SESSION B3**



**11:00 – 13:00**

**ENHANCING Q-LEARNING WITH VECTOR SIMILARITY AND TABU SEARCH  
FOR SOLVING THE VEHICLE ROUTING PROBLEM**

**Hamad A Alkhal; Hesham Alammal**

**CONFERENCE PARALLEL SESSIONS**

**DAY2: 24 OCTOBER 2024**

**SESSION ~~B4~~**

**SESSION B4**  **11:00 – 13:00**

**CROSSCHECKING VERIFICATION OVER THE ETHEREUM BLOCKCHAIN  
USING QR SCANNABLE PRODUCTS**

**Kuan Hay Chua; Muhammad Ehsan Rana;  
Vazeerudeen Abdul Hameed; Muhammad Hussain Rana**

**SESSION B4**  **11:00 – 13:00**

**INTEGRATING ARTIFICIAL OPEN GENERATIVE ARTIFICIAL INTELLIGENCE  
INTO SOFTWARE SUPPLY CHAIN SECURITY**

**Vasileios Alevizos; Zongliang Yue; Clark Xu; George A Papakostas;  
Antonis Mesinis; Akebu Simasiku; Dimitra Maliarou; Sabrina Edralin**

**SESSION B4**  **11:00 – 13:00**

**A SUPER LEARNER ENSEMBLE-BASED INTRUSION DETECTION SYSTEM  
TO MITIGATE NETWORK ATTACKS**

**Ojo John Ajayi; Adesina Sodiya; Mustapha Bagiwa; Toluwase Ayobami Olowookere**

**SESSION B4**  **11:00 – 13:00**

**MACHINE LEARNING FOR DETECTING FINANCIAL STATEMENT FRAUD: A BIBLIOMETRIC ANALYSIS**

**Abdulla Yaseen Alghasra; Dawla Almulla; Mohamed Abbas; Minwir Al-Shammari**

**SESSION B4**  **11:00 – 13:00**

**PMASSIST: SCALING PRODUCT EFFICIENCY USING GENAI**

**Nikita Kirane; Rudra Roy Choudhury**

**SESSION B4**  **11:00 – 13:00**

**TOWARDS A NEW HYBRID SYNTHETIC MINORITY OVERSAMPLING TECHNIQUE  
FOR IMBALANCED CLASS PROBLEM IN SOFTWARE DEFECT PREDICTION**

**Yakub Kayode Saheed; Mohammed Babatunde Ibrahim;  
Usman Ahmad Baba; Sulaiman Olaniyi Abdulsalam**

