



International Conference on Artificial Intelligence, Computer, Data Sciences and Applications

(ACDSA 2024)

CONFERENCE PROGRAM

(Online Part)

Time: Seychelles (GMT+4)

February 1 st , 2024			
Time	HALL-A	HALL-B	HALL-C
08:45-09:00	Opening Speech <i>Dr. Mahendra Gooroochurn</i> (University of Mauritius, MAURITIUS)		
09:00-09:30	Keynote Speech <i>Dr. Akihito Nakamura</i> (University of Aizu, Fukushima, JAPAN) Title: A Heuristics and Machine Learning Hybrid Approach to Adaptive Cyberattack Detection		
09:30-11:30	Session A-I: Artificial Intelligence-1	Session B-I: Neural Networks	Session C-I: Big Data & Data Science
11:30-11:45	COFFEE BREAK		
11:45-13:45	Session A-II: Artificial Intelligence-2	Session B-II: Cryptography & Blockchain	Session C-II: Machine Learning & Deep Learning
13:45-14:15	LUNCH		
14:15-16:15	Session A-III AI & Data Science	Session B-III: Machine Learning	Session C-III: Energy & Control Systems
16:15-16:30	COFFEE BREAK		
16:30-18:45	Session A-IV: Mixed	Session B-IV: Cyber Security & Robotics	Session C-IV: Embedded Systems & Communications



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Opening Speech
Dr. Mahendra Gooroochurn
 (University of Mauritius, MAURITIUS)

09:00-09:30

Keynote Speech
Dr. Akihito Nakamura
 (University of Aizu, Fukushima, JAPAN)
Title: A Heuristics and Machine Learning Hybrid Approach to Adaptive Cyberattack Detection

09:30-11:30

Parallel Session A-I: Artificial Intelligence - 1
 Chair: **Salah Kamel**

ID	Authors	Title
195	Johannes Louis Du Toit , Eduan Kotzé	The Automatic Detection of Abusive Language in Dota 2 Chat Messages
390	Ayman Awad , Salah Kamel, Mohamed H. Hassan, Francisco Jurado	Optimal Allocation of FACTS Devices in Power Systems: A Multi-Objective Optimization Approach with Consideration of Wind Generation Integration
140	Adedeji Olugboja , Elizabeth Moghalu Agbakwuru	Bridging Healthcare Disparities in Rural Areas of Developing Countries: Leveraging Artificial Intelligence for Equitable Access
373	Malarvizhi Sankaranarayanan , Ravigopal Vennelakanti	Multi-Agent reinforcement learning for shared resource scheduling conflict resolution
424	Angelo Leite Medeiros De Goes , Adrião Duarte Dória Neto, Matheus Gomes Diniz Andrade, Thiago Theiry De Oliveira	Classification and tracking of items on a moving conveyor belt using convolutional networks and image processing
442	Cosme Dotonou , Patrick Sotindjo, Leopold Codjo, Daton Medenou	Localization of S1 and S2 in a phonocardiogram containing S3 or S4 sounds using signal strength
363	Bastien Lagneaux , Gurvan Jodin, Dixia Fan, James Herbert-Read, Corentin Porcon, Florence Razan	An Automatic Highly Dynamical Digital Twin Design with YOLOv8 for hydrodynamic studies on living animals.
13	Rafa A. Alenezi , Simone A. Ludwig	Using Teaching Learning-based Optimization With Convolutional Neural Network To Detect Pneumonia Based On Chest X-ray Images

09:30-11:30

Parallel Session B-I: Neural Networks

Chair: Usha Jogalekar

ID	Authors	Title
3	Bota Maria Aurora, Dan Gota , Peter Bota, Ovidiu Stan, Adela Puscasiu, Alexandra Fanca, Claudiu Domuta, Honoriu Valean, Liviu Miclea	Utilizing Transfer Learning Based Algorithms for Breast Ultrasound Data in Multi-Instance Classification
86	Wael Natafji , Daniel Einarson	Comparisons of Deep Learning Approaches to Detect Lung Cancer through Efficient Computer Based CT-based Screening
145	Devesh Mothilall , Terence Van Zyl	An evaluation of the Long Short-Term Memory (LSTM) model for predictive maintenance applications in the aircraft industry
335	Davide Callegarin , Patrick Callier, Christophe Nicolle	STDP-based Growing Neural Gas for Hierarchical Data Representation and Neural Networks Fusion
355	Namba Munehiro	Implicit Bias-Term Effect of Bias-Term Free Feed-Forward Network Model can Improve Training Speed
389	Vladislav Voropaev , Vali Magomedov , Alexander Alfimtsev	Automatic generation of neurocomics based on computer vision system data
412	Deepthi Tabitha Bennet, Preethi Samantha Bennet, Priya Thiagarajan , Sundarakantham. K	Content Based Classification of Short Messages using Recurrent Neural Networks in NLP
80	Arianna Del Soldato , Daniele Sartiano , Maurizio Martinelli	READS: Enhancing .it Domains Integrity with Registrant's Anomalies Detection System

09:30-11:30

Parallel Session C-I: Big Data & Data Science

Chair: Devesh Mothilall

ID	Authors	Title
99	Jiří Setinský , Martin Žádník	Comparison of Controlled Undersampling Methods for Machine Learning
103	Maurice Comlan, Adiba Eudes	Customer Lifetime Value in Streaming : a Markov Chain Approach
136	Iztok Fister , Andres Iglesias, Akemi Galvez, Vili Podgorelec, Iztok Fister Jr.	Contribution of low support association rules in understanding the mined knowledge
166	Maryam Alblooshi, Hessa Alhajeri , Meera Almatrooshi, Maher Alaraj	Unlocking Transparency in Credit Scoring: Leveraging XGBoost with XAI for Informed Business Decision-Making
270	Reem Abuzayeda, Ioannis Karamitsos , Andreas Kanavos	Advancing Student Guidance Using Classification Data Mining Techniques
329	Luong Vuong Nguyen	Collaborative Filtering-based Movie Recommendation Services Using Opinion Mining
266	Manuel Zürn , Marcel Dzubba, Colin Reiff, Samed Ajdinovic, Armin Lechler, Alexander Verl	Cobot for Automated Vision Data: Streamlining Production with Automated Annotations for Machine Learning
360	Keshvi Patel	Survival Analysis of Heart Failure Patients

11:30-11:45

COFFEE BREAK

11:45-13:45

Parallel Session A-II: Artificial Intelligence - 2

Chair: Veerpratap Meena

ID	Authors	Title
58	Sundas Zaman , Taha Elhag, Mohammed Salama, Shereen Nassar	Adoption of AR (Augmented Reality) in BIM (Building information modelling) enabled FM (Facilities Management): a systematic review
139	Laura Bies , Sophie Schmidt, Stefan Morana, Dirk Werth	Future Office: A Comparative Study on the Acceptance and Utilization of Generative AI Technologies
182	Vasileios Alevizos , Ilias Georgousis, Akebu Simasiku, Antonis Messinis, Sotiria Karypidou, Dimitra Malliarou	Evaluating the Inclusiveness of Artificial Intelligence Software in Enhancing Project Management Efficiency – A review and examples of quantitative measurement methods

207	Chen Zhao , Askar Hamdulla	Crossing Linguistic Barriers: A Hybrid Attention Framework for Chinese-Arabic Machine Translation
216	Michelle Weber , Eylem Bulut, Laura Bies, Tobias Greff, Dirk Werth	AI's role in marketing for SMEs: knowledge, barriers and application potentials
76	Tricczia Karlisle Chavez , Jennifer Dela Cruz	Joint Human Detection and Scene Classification for Flood Search and Rescue Using Multi-task Learning
336	Sabine Bohlmann	Bionic model of information processing in the retina
101	Carlos Alberto Dos Santos, Kévin Bouchard , Fabio Petrillo	AI-Driven User Story Generation
46	Juan Cadavid Gómez , Antonin Abhervé, Piana Daniela	Building Trust in AI deployments in Healthcare

11:45-13:45

Parallel Session B-II: Cryptography & Blockchain
Chair: Aysha Abdulla

ID	Authors	Title
392	Zahraa H. Salim , Safwan O. Hasoon	Intrusion Detection Using Artificial Intelligence Techniques: Review
22	Indra Wahyudi , Parman Sukarno, Aulia Arif Wardana	Mobile-based Vaccine Tracking System using Ethereum Blockchain and QR Code
50	Ildar R. Solokhov , Artem A. Sukhobokov, Anna Y. Filippovich	Traceability of Multi-Link Supply Chains
57	Aysha Abdulla , Omer Bin Hussain, Numa Fatima	Cybersecurity
158	Leonard Hill, Florian Schimanke, Stefan Schiffner, Robert Mertens	Compromising insecure crypto implementations: A deep-learning based cryptosystem-agnostic testing framework
170	Bandana Pandey, Prabal Paul , C R Pradeep	Classification of a Class of SA ² MDSS Codes and Its Application in Cryptography Algorithms
221	Masike Malatji	Comparative Analysis of Adversarial AI Injection Attacks: A Preliminary Study
296	Samuel Kwabena Boateng , Michelle Liu	Quantum Computing Outreach: Raising Public Awareness and Understanding
323	Abu S Kamruzzaman , Kutub Thakur, Shameea Mahbub	AI Tools Building Cybercrime & Defenses

11:45-13:45

Parallel Session C - II: Machine Learning & Deep Learning
Chair: Moussa Mahamat Boukar

ID	Authors	Title
433	Tasnim Ahsan Prome , Tasnia Jasim Tahiti	MobileNetV2 Based Cervical Cancer Classification Using Pap Smear Images
437	Mashrur Kabir , Tasnia Jasim Tahiti, Tasnim Ahsan Prome	A Comparative Study of Certain Convolutional Neural Network Architectures for X-ray Image Analysis in Bone Fracture Detection and Identification
128	Snitik Swaroop, Kurivella Yatindar Prasad, G Sai Srikar Reddy, Mahathi Rachavelpula , Usha A. Jogalekar	Real Time Sign Language Detection
447	Vaibhav Mishra	Performance Evaluation of Deep Learning Models for Detection of Brain Tumors from CT Scans
402	Yuze Jiang , Ruiming Lu, Shuyue Zhou, Qiao Li	Machine Learning Based Collaborative Prediction of SSD Failures in the Cloud
151	Devesh Mothilall , Terence Van Zyl	Improving road damage maintenance in South Africa using deep learning
185	Ayoung Yang , Ryota Imai, Tadasuke Furuya	Design of a LiDAR-based Point cloud data image Program for Ship safety domain Visualization
219	Reham Afifi Abd El Aziz , Doaa Elzanfaly, Marwa Salah Farhan	Towards Semantic Layer for Enhancing Blocking Entity Resolution Accuracy in Big Data
300	Moussa Mahamat Boukar , Assia Aboubakar Mahamat, Umar Hassan Djibrine, Usman Bello Abubakar	Improving the Accuracy of Animal Species Classification in Camera Trap Images Using Transfer Learning

13:45-14:15

LUNCH

14:15-16:15

Parallel Session A-III: AI & Data Science
Chair: **Michela Bogliolo**

ID	Authors	Title
259	Dennis De Champeaux	AI Assessment
64	Rachel John Robinson , Elvis Onyango	Cutting-edge AI Techniques for Remarkable New Product Promotions
427	Oumar Hassan Djibrine , Daouda Ahmat, Moussa Mahamat Boukar	Deep Learning-based Approaches for Preventing and Predicting Wild Animals Disappearance: A Review
133	Suravi Thakur , Nilanjan Senroy	Statistical Uncertainty Quantification for Robustness Stability Analysis using Appropriate Sampling in Power Systems
177	Lahcen Tamym , Lyes Benyoucef	How Can Big Data Analytics and Artificial Intelligence Improve Networked Enterprise's Sustainability?
375	Rahul Vishwakarma , Ravigopal Vennelakanti, Pierre Huyn, Masato Tamura	Unsupervised Stationary Flow Filter in CCTV Pipeline Inspection Videos
23	Lucas Gonzalez , Kevin Bouchard, Julien Maitre, Sebastien Gaboury	Adaptative Dashboards to Assist Semi Autonomous Persons in Smart Homes

14:15-16:15

Parallel Session B-III: Machine Learning
Chair: **Dimitri Karagiannis**

ID	Authors	Title
38	Abu Asaduzzaman , Venkata S.P.T. Telikepalli, Md Raihan Uddin	Performance Analysis of C and Python Parallel Implementations on a Multicore System Using Particle Simulation
39	Abu Asaduzzaman, Md Raihan Uddin , Nowshin Nawal, Marcus Ang	Reduction of Input Features from Machine Learning Datasets for Water Quality Analysis
49	Andreas Stockl , Ernes Ibrovic	Document Segmentation for Topic Modelling with Sentence Embeddings
96	Dimitri Karagiannis, Michael Tarquinio , Ali Jalali, Michael Thomas	Machine Learning Detection of Campaign Financing from FIRE Industries to Members of the 116th U.S. Congress
125	Zhiheng Xiao, Xinfeng Ye , Sathiamoorthy Manoharan	Improved Facial Emotion Detection Using CoAtNet and Temperature Scaling
138	Daniel Kerger	The Impact of Explainable AI on Low-Accuracy Models: A Practical Approach with Movie Genre Prediction
184	Eduan Kotzé, Burgert Senekal	Afrikaans Literary Genre Recognition using Embeddings and Pre-Trained Multilingual Language Models
203	Soualihou Ngnamsie Soualihou , Jeong-Dong Kim, Candra Zonyfar, Hyun Lee, Taek Lee, Jung-Been Lee	An ensemble learning-based machine learning with voting mechanism for chronic disease prediction
358	Ruqayya Muhammad , Moussa Mahamat Boukar, Steve Adeshina, Senol Dane	A Few-shot custom CNN Model for Retinal Nerve Fibre Layer Thickness Measurement in OCT Images of Epilepsy
148	Can Bogoclu , Robert Vosshall, Kevin Cremanns, Dirk Roos	Deep Gaussian Covariance Network with Trajectory Sampling for Data-Efficient Policy Search

14:15-16:15

Parallel Session C - III: Energy & Control Systems
Chair: **Zhexu Xi**

ID	Authors	Title
114	Zhexu Xi	Unlocking Hydrogen Evolution: Deciphering Structure-Activity Links in Two-Dimensional Molybdenum Dichalcogenides for Enhanced Electrochemical Catalysis
146	Schalk Van Der Merwe , Arnold Rix, Armand A. Du Plessis	Providing Ancillary Services from Renewable Energy in South Africa
391	Nehmedo Alamir , Salah Kamel, Francisco Jurado, Sobhy M. Abdelkader	Stochastic Energy Management for Multi-Microgrid with Demand Response and Battery Storage
189	Stefania Zanforlin, Micol Pucci	Low-order CFD simulation of a ducted wind turbine in realistic hilly environments
190	Micol Pucci , Stefania Zanforlin	Tidal Farms: Optimising site-specific layouts by combining analytical methods and fluid dynamic simulations

440	Osamah N. Neamah , Aadel S. Abumelh, Raif Bayir	Optimizing Efficiency and Performance in DC-DC Boosters: A Newton-Raphson Approach for Enhanced Model Predictive Control
220	Nikola Vladimir	A system for measurement of seawater parameters: Statistical postprocessing of collected data
414	Volodymyr Khilenko , Halina Bielokha, Sergii Denysiuk, Oleksii Stepanov, Ivan Kotuliak	Analysis of the effectiveness of the optimization processes of trans active power system management with distributed multi-purpose energy resources
155	N. D. Fiță , M. D. Marcu, I. Utu, D. Pasculescu, F. G. Popescu, T. Lazăr	Critical analysis of the 220/110/20 kV Sardanesti power substation from Romania in the context of identification elements of instability and insecurity

16:15-16:30

COFFEE BREAK

16:30-18:45

Parallel Session A-IV: Mixed
Chair: **Kundjanasith Thonglek**

ID	Authors	Title
361	Nathalie Müller , Mirko Waldner, Torsten Bertram	Improving Computer Vision for Automated Driving by Virtual Optimization of Matrix Headlights Using Surface Properties of the Environment
137	Iztok Fister Jr , Dusan Fister, Vili Podgorelec, Iztok Fister	Profiling the carbon footprint of performance bugs
413	Maitha Alremeithi , Hamda Altamimi, Alaa Alshehhi, Asad Khattak	A Comparative Review and Recommendations on Database Recovery Techniques
343	Kundjanasith Thonglek , Pongsakorn Sihapitak, Chonho Lee	A Quantum Annealing-Based Approach for Solving Talent Scheduling
466	J. G. Mbula Mboma, Kutu Lusala, Michel Matalatala , O. Tshimanga Tshipata, P. Sedi Nzakuna, D.T. Kazumba	Integrating LLM with Blockchain and IPFS to Enhance Academic Diploma Integrity
77	Marco Raugi	Guided Wave Monitoring of Pressure Systems at Extreme Temperatures: Experimental Tests
324	Marco San Biagio , Simone Simoncini, Ernesto La Mattina, Vito Morreale	MARPLE: A Framework for Social Media Threat Intelligence
222	Nina Helander	Collaborative Strategies for Sustainable Smart City Development
384	Roxana-Maria Motorga, Mihail Abrudean, Vlad Muresan , Valentin Sita, Cristian Bondici, Adrian Popescu	Intelligent Model For A Mini Hydropower Plant And Its Adaptive Control
385	Roxana-Maria Motorga , Vlad Muresan, Mihail Abrudean, Iulia Clitan, Mihaela Unguresan, Adrian Popescu	Advanced control of the 13C isotopic separation process using AI
229	Hyoung Joong Kim , Jongwon Lee, Sora Kang, Seong Wook Chae, YongKwan Kim, Gyu M. Lee	Desirable Price Function and Value Ratio of Constant Function Market Makers

16:30-18:45

Parallel Session B-IV: Cyber Security & Robotics
Chair: **Mehmet Göktürk**

ID	Authors	Title
362	Alessandro De Piccoli , Michela Ceria, Theo Moriarty, Andrea Visconti,	A troyan Diffie-Hellman-like protocol based on proof of gullibility
20	Victor Kadykov, Alla Levina, Ksenia Grebenevich	Implementation of Lattices System in Homomorphic Encryption
441	Abel Yeboah-Ofori , Aishat Ganiyu	Big Data Security Using RSA Algorithms in a VPN Domain
388	Keziban Çimen, Mehmet Göktürk	Multi Party Secure Android Cash Register
367	Misty Lawson	Combating the Escalating Threat of Ransomware Multi-Pronged Approach for Secure Organizations
446	Dominick Rizk , Frederic Rizk, Patrick Rizk, Rodrigue Rizk	RAPUF: A Novel Integration of Reversible Logic and Arbiter Physical Unclonable Functions for Enhancing IoT Security
233	Soogund Muhammad Fakhruddin , Mahendra Gooroochurn	Duct Inspection and Monitoring Robot
396	Michela Bogliolo , Filippo Bogliolo, Emanuele Micheli, Fiorella Operto	Nao: a promising tool for Pediatric Hospitals
171	Sinisa Arsic, Marko Mihic , Dejan Petrovic, Zorica Mitrovic, Slavica Cicvaric Kostic	Measures for improving ML model interpretability: Empowering decision makers with transparent insights
95	Kay Massow, Friedrich Maiwald , Max Thiele, Jan Heimendahl, Robert Protzmann, Ilja Radusch	Crowd-Based Road Surface Assessment Using Smartphones on Bicycles

16:30-18:45

Parallel Session C - IV: Embedded Systems & Communications
Chair: Abu Kamruzzaman

ID	Authors	Title
376	Ahmed Hamed Ahmed Adam , Jiawei Chen, Salah Kamel, José Luis Domínguez-García	Power Management Control for Hybrid Electric Aircraft Propulsion Drive Based on Triple Active Bridge DC-DC Converter
377	Ahmed Hamed Ahmed Adam , Jiawei Chen, Salah Kamel, José Luis Domínguez-García	Zero-Voltage-Switching Analysis Model of a Three-Port Converter for Hybrid Electric Applications
378	Ahmed Hamed Ahmed Adam , Jiawei Chen, Salah Kamel, José Luis Domínguez-García, Mohammed Hassan Ahmed	Analysis of Power Losses and Evaluation Model for SiC MOSFET-based Triple Active Bridge Converter in Hybrid Electric Aircraft Applications
27	António Reis Pereira , Pedro De Sousa Boeiro, Miguel Mira Da Silva, Flávia Maria Santoro	Ontology Evaluation for Shared Autonomous Vehicles
359	Ferhan Öztürk, Uğur Kılınç, Mehmet Göktürk	Development of ASIL B Safety Integrity Level Rotational Position Sensor
241	Vincent Latzko , Zhenzhen Jia, Christian L. Vielhaus, Mahshid Mehrabi, Frank H. P. Fitzek	Experiment as Code - An Automated Testbed for Cloud Scaling and Operations
260	Saleh Rabia , Skloul Idris I, Georgieva Lilia, Kenwright Benjamin	SDMANET: Enhancing MANETs with Hybrid Protocols through SDN Integration
428	Mahamat Ismael Hassan , Daouda Ahmat, Samuel Ouya, Mahamat Borgou Hassan, Mahamat Charfadine Salim, Bachar Salim Haggar	Assessment of software-defined UAVs operating in remote areas
188	Attila Tókos , Gabriela Cîrciumaru, Csaba Bartha, Andreea Voina, Monica Vrânceanu-Jipa, Alina Ruxandra Caramitu, Rareş-Andrei Chihaiia, Iosif Lingvay	Automation control system of an equipment for ELF stimulated phototrophic microalgae production
90	Mario Balcazar , Carlos Gustavo Perez, Francisco Cuellar	Design and Simulation of a Model Predictive Control System Navigation of a Drone in Confined Spaces