ICAETA 2024

Conference Program

ICAETA-2024

3rd International Conference on Advanced Engineering, Technology and Applications

University of Catania, Italy

May 24-25, 2024

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3rd International Conference on Advanced Engineering, Technology and Applications
May 24-25, 2024
University of Catania, Italy

Program Summary
All timing follows Central European Summer Time: UTC/GMT +1

Day–1
Friday, May 24, 2024

	Google Meet Link-1	Google Meet Link-2
08:50 - 09:00	Conference Opening	
09:00 - 09:40	**Keynote**: Dr. Minhaz F. Zibran	
09:40 - 10:20	**Keynote**: Dr. Daniel Balsalobre- Lorente	
10:20 - 11:00	**Keynote**: Dr. Alessandro Ortis	
11:00 - 11:15	**Break**	
11:15 - 13:15	Technical Session – 1	Technical Session – 2
13:15 - 13:30	**Break**	
13:30 - 14:10	**Keynote**: Dr. Ezgi Demir	
14:10 - 14:50	**Keynote**: Dr. Tala Talaei Khoei	
14:50 - 15:00	**Break**	
15:00 - 17:00	Technical Session – 3	Technical Session – 4

DAY–2
Saturday, May 25, 2024

	Google Meet Link-1	Google Meet Link-2
09:00 - 09:40	**Keynote**: Dr. Valerio Giuffrida	
09:40 - 10:20	**Keynote**: Dr. Luca Guarnera	
10:20 - 11:00	**Keynote**: Miss Pinar Ersoy	
11:00 - 11:15	**Break**	
11:15 - 13:15	In-Person Technical Session – 5	Technical Session – 6
13:15 - 13:30	**Break**	
13:30 - 14:10	**Keynote**: Dr. J. Roberto Sánchez-Reina	
14:10 - 14:50	**Keynote**: Dr. Alexandros-Apostolos A. Boulogeorgos	
14:50 - 15:30	**Keynote**: Dr. Mustafa Takaoğlu	
15:30 - 15:40	**Break**	
15:40 - 17:40	Technical Session – 7	Technical Session – 8

Program Details

DAY–1: Friday, May 24, 2024

Technical Session - 1 Time: 11:15 - 13:15 Session Chair: Massimo Spata	Day-1 May 24

Paper ID	Authors / Title
90	**Gündüz, Ali; Orman, Zeynep** Enhancing Hyperspectral Image Classification with Bayesian for CNN-GRU Hyperparameter Optimization
93	**Erboy, Mehmet Onur; Karaca, Ali Can** Weighted XGBoost-based Active Learning Framework for Imbalanced Fraud Detection Using Small Number of Samples
82	**Fargetta, Georgia; Ortis, Alessandro; Anile, Stefano; Battiato, Sebastiano** Evaluation of CNNs for Wildcats Classification in Real World Scenario
117	**Salem, Rawya S; Abdulhammed , Razan** Phishing Email Detection: Survey
79	**Davud, Muhammed** Utilizing Transfer Learning for Enhanced Classification of Skin Lesions through Deep Learning Approaches
119	**Mohammad Salman** A Novel Hybrid Solution for Traveling Salesman Problem
109	**Al-Asadi, Mustafa; Taiwo Onifade, Stephen** Machine Learning Insights into Nordic CO2 Emission Trends
95	**Shkurti, Tea; Bayılmış, Cüneyt** Strategic Price Optimization: Machine Learning's Role in E-Commerce Dynamics

Technical Session - 2 Time: 11:15 - 13:15 Session Chair: Alessandro Ortis	Day-1 May 24

Paper ID	Authors / Title
99	**Baniya, Pashupati; Nand, Parma; Bhushan, Bharat; Hameed, Alaa Ali; Jamil, Akhtar** Performance Analysis of Existing SDN Load Balancing Controller Using Mininet
76	**Mostafa, Nour; Shdefat, Ahmed Younes; Al-Arnaout, Zakwan; Salman, Mohammad; ElSayed, Fahmi** Optimizing IoT Resource Allocation using Reinforcement Learning
77	**Belouaddane, Lahcen; Ait Said, Mehdi; Hassan First University,, Abderrahim; Benmakhlouf, Amine** Microservice Architecture DevOps Integration Challenges: A Qualitative Study
78	**Özer, Muhammed Miraç** A UAV Configuration Capable of Object Detection, Instant Communication and Real-Time Data Transmission
96	**Özer, Muhammed Miraç** Internet of Things-Based Drone Case Study for Atmospheric Data Collection

84	**N. Neamah, Osamah; Cayiroglu, Ibrahim; Bayir, Raif** Crack the Code: Leveraging Adaptive Equalization for Enhanced Egg Crack Detection in Classification and Object Detection
80	**Benmessaoud, Lylia; Tair, Khadidja; Boukhedouma, Saida** Dynamic resource allocation for sustainable smart agriculture based on IoT
100	**Hmood, Omar H; Askar, Mshary** A Comprehensive Review of Non-Linear Effects and Four-Wave Mixing in Optical Fiber Communication Systems

Technical Session - 3 Time: 15:00 - 17:00 Session Chair: Francesco Guarnera	Day-1 May 24

Paper ID	Authors / Title
70	**Özer, Muhammed Miraç** Transforming a Customized Drone into an Advanced Forensic Investigation Platform
101	**Agrawal, Atul; Mohi Ud Din Khanday, Akib; Mohammed Alazawi, Esraa; Bhushan, Bharat; Baniya, Pashupati; Jamil, Akhtar** Improving Breast Cancer Detection Accuracy through Random Forest Machine Learning Algorithm
103	**Khanday, Akib M; Baniya, Pashupati; Bhushan, Bharat; Alazawi, Esraa Mohammed ; Jamil, Akhtar; Agrawal, Atul** A Multifaceted Approach for Identifying Propaganda on Social Networks
118	**Jaiswal, Vanshika ; Gupta, Sanyam; Gupta, Shilpa; Kumar, Deepika; Jamil, Akhtar** Enhancing the heart disease classification using Multi-level Perceptron and Principal Component Analysis
113	**Abdulaziz, Rahma M; ahmad, mohand lokman** Revolutionizing Stroke Rehabilitation: Integrating Technology and Automation for Enhanced Patient Outcomes
114	**Islam, Md Aminul** Bank Loan Applicant (Credit Score) Assessment through ML: A Comparative Approach
116	**Yousif, Aya Emad ; Younus, Mohammed Hazim; Abdulaziz, Azhar** MIMO Channel Coding: Survey
89	**Tareq, Wadhah Zeyad** Using Different Deep Learning Models for Robot Navigation in Maze
63	**Ocak, Ayla*; Niğdeli, Sinan Melih; Bekdaş, Gebrail** Investigation of the Effect of Maximum Height for Tuned Liquid Damper Optimization

Technical Session - 4 Time: 15:00 - 17:00 Session Chair: Muhammed Davud and Georgia Fargetta	Day-1 May 24

Paper ID	Authors / Title
104	**khan, Andleeb; Yadav, Saundarya; Nand, Parma; Mohi Ud Din Khanday, Akib ; Bhushan, Bharat; Jamil, Akhtar; Hameed, Alaa Ali** An Explainable Predictive Model for Diabetes Detection Using Shapley Additive Explanations Approach
112	**Abdulrazzaq, Mohammed Majid; Saad, Ehab; ibrahim, abdullahi.; Abdulrazzaq, Mohammed Majid** House Price Prediction Using Artificial Neural Network with Adagrad Optimizer
51	**García Márquez, Fausto Pedro; Al-taie, Ali; Zakur, Yahya A; Alsadoon, Abeer H; Flaih, Laith; Zakoor, Yousif** Exploring the Potential of the Machine Learning Techniques in the Water Quality Assessment: A Review of Applications and Performance

58	**Kuş, Zeki; Kiraz, Berna; Aydin, Musa; Kiraz, Alper** BioNAS: Neural Architecture Search for Multi-Modal Biomedical Image Classification
66	**Nizam-Ozogur, Hatice; Orman, Zeynep** A Comparative Study of Preprocessing Techniques for Stroke Prediction using XGBoost Classifier
67	**K. S., Srinath** Mental Illness Detection in Social Media Data using Sub-emotions Model and Ensemble-Based Hybrid Technique
68	**Rahman, Md Habibur** Optimal Control Problem and Its Application in COVID-19 Transmission Dynamics
74	**Fadli, Marwa; Alhamli, Bashayer; Aldosari, Aljawhara; Alajmi, Nourah; Alkhayat, Zahraa; Potams, Albert; Salman, Mohammad** Q-State versus FFT and WT for Stress Detection
83	**Panchal, Vidhi ; Vyas, Vaidehi ; Jamil, Akhtar; Ahmed, Saad Bin** Classification of Alzheimer's Disease Stages using Vision Transformers

Program Details
DAY–2: Saturday, May 25, 2024

Technical Session - 5 Time: 11:15 - 13:15 Session Chair: Wadhah Zeyad Tareq	Day-2 May 25

Paper ID	Authors / Title
71	**Shdefat, Ahmed Younes; Mostafa, Nour; Salman, Mohammad; ElSayed, Fahmi** Breaking New Ground in HAR with Enhanced Weighted k-NN Algorithm
69	**M. Vaighan, Leila ; Jabbarbabouei, Zeinab ; Uyguroğlu, Fuat; Toygar, Önsen** Exploring Deep Learning Architectures for Multiple Apple Leaf Disease Classification
97	**Abdullah, Fasih; Razi, Muhammad; Aleem, Muhammad; Jamil, Akhtar; Hameed, Alaa Ali** A Comparative Analysis of Cloud Load Balancing Algorithms Using CloudSim Simulations
59	**Özer, Çağdaş; Orman, Zeynep** Transformers Architecture Oriented Intrusion Detection Systems: A Systematic Review
102	**Lulaj, Enkeleda** Unleashing Student Triumph: Unraveling the Dynamic Link between State Funding, Academic Excellence, and Financial Prosperity in the Digital Era
87	**Çelik, Esra; Dal, Deniz** Analysis of Assembly Code Similarities of Different C++ Compilers
62	**Nar, Meryem Tuğba; Durukan, Gürcan; Özcan, Abdullah Himmet; Çakil, Lütfü; Kara, Huseyin; İlhan Omurca, Sevinç** Turkish Document Image Classification
65	**Islam, Md Aminul ; Hasan, Mehedi; Nur, Abdullah Hafez** Assessing Cybersecurity Threats: The Application of NLP in Advanced Threat Intelligence Systems

Technical Session - 6 Time: 11:15 - 13:15 Session Chair: Enkeleda Lulaj	Day-2 May 25

Paper ID	Authors / Title
9	**Ahmed, Nazik J. ; Al-Rozbayani, Abdulghafor M.** Numerical Convergence Solutions of the (2+1) Dimensional Fractional Coupled Differential Burger's Equations Using Sumudu Transform with Adomian Decomposition Method
85	**Sisman, Halil Ibrahim; Güney, Emin; Bayılmış, Cüneyt** A Real-Time Tracking System for Bread Production Based on YOLOv8 and DeepSORT
86	**Güney, Emin; Bayılmış, Cüneyt** YOLOv5-Based Driver Behavior Monitoring System for Safer Roads on Jetson Xavier NX
94	**Abdellatif, Abdelrahman; İslamoğlu, Ertuğrul ; Nizam, Ali** Analysis of Code Similarity with Triplet Loss-Based Deep Learning System
35	**Mohammed, Hadi Salman; Algamal, Zakariya Yahya; Alheety, Mustafa I. N.** Performance of the difference-based two parameters estimator in semiparametric regression models
6	**Al-Saffar, Suzan Muhsen; Qasim, Omar Saber** Feature Selection Based on Binary Tree Growth Algorithm Using Opposition-Based Learning
40	**Mohammed, Shahad J.; Yakob, Haidar Kadum; Ramizy, Asmiet** Synthesized Pulsed Laser ZnO as Anti Diabetic Foot Ulcer Pathogenic Bacteria
123	**Abdulrazzaq , Mohammed; Al-Yosif, Rasha; Hamodat, Zaid** Design and Implementation of LUO Converter with MPPT Controller Based on Photovoltaic System Growth

Technical Session - 7 Time: 15:40 - 17:40 Session Chair: Faezeh Soleimani	Day-2 May 25

Paper ID	Authors / Title
38	**Ahmed, Zainab K.; Rzaij, Jamal M.** Synthesis and Characterization of Silver Nanoparticles-Coated Molybdenum Oxide Thin Films
37	**Al-Rashid, Saeed Naif Turki; Hijab, Sarah Ahmed** The effect of the particle size on the optical properties of Nano TiO2 Coatings
42	**Mohammed, Shahd Khaled; Al-Rawi, Bilal K.** Modeling the Structural and Vibrational Properties of SiP Diamondoids and Nanocrystals Via DFT
32	**AbdAlrazaq, AbdAllah Salah; Batah, Second Feras Sh. M.** Estimation to the Survival Function for Weibull Pareto Distribution by crisp and Ranking algorithm
31	**Abdullah, Mustafa Mohammed ; Alheety, Mustafa I.** Modified New Biased Estimator In Linear Regression Model Under Heteroscedastics or Correlated Errors
28	**Ahmed, Abdulrhaman A Jassim; Batah, Feras Sh. M.** On Estimating Reliability Stress – strength Model in Case the Weibull Pareto Distribution
20	**Raslan, Amina; Entesar, Ahmed** Hybridization of the Analytic Banach's Contraction Method Using the Particle Swarm Optimization Algorithm for Fractional System Solving Drinfeld-Sokolov-Wilson

19	**Mahmoud, Mohammed Sabah ; Al-Rozbayani, Abdulghafor M. ; Qasim, Omar Saber** Numerical Solution of Fuzzy Linear Systems Using Homotopy Perturbation Method
11	**Al-Thanoon, Niam Abdulmunim; Algamal, Zakariya Yahya ; Qasim, Omar Saber** Improving Meta-heuristic Algorithms for Feature Selection in Multiclass Classification

Technical Session - 8 Time: 15:40 - 17:40 **Session Chair: Mustafa Al-Asadi**	**Day-2** **May 25**

Paper ID	Authors / Title
4	**AL_Hayani, Mahmoud H.Eiada ; Alheety, Mustafa I.** Using Corrected Biased For Developing New Weighted Mixed Estimator for Linear Regression Model
53	**Njim, Emad; Mohammad , Ahmed H. ; Al-Waily, Muhannad; Jweeg, Muhsin J** Analyzing the mechanical performance of porous TPEs under various operating conditions.
54	**Njim, Emad; Mohammad , Ahmed H.; Al-Waily, Muhannad; Jweeg, Muhsin J** Design and analysis of artificial IVD by 3D printing technology using functionally graded materials
47	**Mazhir, Sabah N.; Abbas, Ehsan M.; Abdalameer, Nisreen kh.; Abbas, Huda H.** CuO Nanoparticles Prepared by Pulsed Laser Ablation: Evaluation of Their Anti-Proliferative Activity Against Colon Cancer Cells
46	**Esam, Rawaa; Issam; Ali; Akram Mohammed** Effect of Beta Radiation Exposure on The Properties of Tin Sulfide (Sn2S3) Thin Films For Solar Cell Applications
45	**Aobaid, Ali Kalaf; Dahash, Fadhil Ketab; Al Maamori, Mohammed H.** The effect of chlorophyll on the mechanical properties of natural rubber (NR) and the penetration of X-ray
44	**Assaf, Abdulkareem H.; Obaid, Ahmed S.; Salih, Emad Mohammed** Eco-friendly synthesis of platinum nanoparticles using cold plasma method: the effect of concentration and time exposure
43	**Tawfeeq, Hasan Ali; Rzaij, Jamal M.** Effect of Thickness on the Structural and Optical Properties of Cadmium Oxide Thin Films Deposited by Thermal Vacuum Evaporation Technique
41	**Ahmed, Majeed Shihab; Ramizy, Asmiet; Al Mashhadany, Yousif** Analysis of Real Measurement for EMG Signal Based on Surface Traditional Sensors
49	**Arif, Ghassan E.; Yaseen, Suha K. ; Khalel, Nihad Sh.** A New Mathematical Models or Estimation the Radon Concentrations in Medical Herbs by Using Numerical Methods