SUPERIOR UNIVERSITY

8th International Conference on Engineering and Emerging Technologies
(ICEET 2022)

27-28 October 2022
Kuala Lumpur / Malaysia
http://www.iceet.net

CONFERENCE PROGRAM BOOKLET

IEEE Conference Record No: 56468

Warning: All timings in the program are as per Malaysia Time (GMT+8)
Convert your local presentation time from
https://www.timeanddate.com

27 October 2022

	ROOM A (Physical)	ROOM B (Physical)	ROOM C (Virtual)	
08.15-08.55	Registration/Arrival of Participants			
08.55-09.00	Arrival of Multimedia University/Superior University Delegates			
09.00-09.05	Doa Recitation			
09.05-09.10	National Song			
09.10-09.15	Welcome Talk on behalf of Organizing Committee Welcoming Remarks by Conference Chairs			
09.15-09.30	Opening Remarks Rector, Superior University VVIP, Multimedia University			
09.30-09.35	Montage Video: MMU - IEEE Malaysia ComsocVTS			
09.35-09.45	Photography Session			
09.45-11.00	Parallel Session 1A: Artificial Intelligence	Parallel Session 1B: Biomedical Engineering & Systems - Mixed Topics	Parallel Session 1C: Modern Communication Technology	
11.00-11.15	Tea Break			
11.15-11.45	Plenary Session 1: Keynote Speaker			
11.45-13.15	Parallel Session 2A: Neural Networks, Deep Learning and Intelligent Systems	Parallel Session 2B: Smart Grids & Energy Management/ Alternate Energy Systems - Mixed Topics	Parallel Session 2C: Smart Grids & Energy Management	
13.15-13.45	Lunch Break			
13.45-14.15	Plenary Session 2: Keynote Speaker			
14.15-15.45	Parallel Session 3A: Modern Communication Technology- Antenna & Wave Propagation	Parallel Session 3B: Information and Network Security - Education & Technologies (E·learning)	Parallel Session 3C: Smart Grids & Energy Management	
15.45-16.00	Tea Break			
16.00-17.15	Parallel Session 4A: Robotics and Automation - Mixed Topics (2+3)	Parallel Session 4B: Signal and Image Processing Techniques - Robotics and Automation	Parallel Session 4C: Systems Education & Technologies (E·learning)	
17.30	Departure for PATRONAS KLCC VISIT			
20:30-21:30	Conference Dinner Dinner Venue/Location: Bar.B.Q Tonight Kuala Lumpur - The Weld | Menara Weld Address: Level 1-10, The Weld Mall, Jalan Raja Chulan, 50200 Kuala Lumpur, Federal Territory of Kuala Lumpur, Malaysia			

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	ROOM A (Virtual)	ROOM B (Virtual)	ROOM C (Virtual)	
09.00-09.30	**Plenary Session 3: Keynote Speakers**			
09.30-11.15	**Parallel Session 5A:** Antenna & Wave Propagation – Mixed Topics	**Parallel Session 5B:** Information and Network Security	**Parallel Session 5C:** Biomedical Engineering & Systems – Mixed Topics	
11.15-11.30	Tea Break			
11.30-13.00	**Parallel Session 6A:** Alternate Energy	**Parallel Session 6B:** Artificial Intelligence	**Parallel Session 6C:** Software Engineering - Mixed Topics	
13.00-13.30	Lunch Break			
13.30-15.15	**Parallel Session 7A:** Neural Networks, Deep Learning and Intelligent Systems	**Parallel Session 7B:** Robotics and Automation	**Parallel Session 7C:** Signal and Image Processing Techniques	
15.15-15.30	Tea Break			
15.30-16.30	**Parallel Session 8A:** Neural Networks, Deep Learning and Intelligent Systems	**Parallel Session 8B:** Mixed Topics	**Parallel Session 8C:** Mixed Topics	
16.30-17.00	**Closing Session:** Best Paper Announcement Closing Remarks by Conference Chairs			

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PLENARY SESSION 00

Session 00: Opening Session	
Room A	
09:00-09:45	**Doa Recitation** **National Song** **Welcoming Remarks by:** *Prof. Dr. Mardeni Bin Roslee, General Chair* **Welcoming Remarks by:** *Dr. Adnan Yusuf, Executive Chair* **Opening Remarks:** *Dr. Sumera Rehman, Rector, Superior University* **Opening Remarks:** *Prof. Ir. Dr. Hezerul Abdul Karim, Dean, FE, MMU* **Montage Video:** *MMU - IEEE Malaysia ComsocVTS* **Photography Session**

PARALLEL SESSIONS 1

Parallel Session 1A: Artificial Intelligence		
Room A		
09.45-11.00	Sandra Grace	**102** Song and Artist Attributes Analysis For Spotify
	Ilyas Ahmad Huqqani; Lea Tien Tay*; Junita Mohamad-Saleh	**108** Modeling of Landslide Susceptibility Mapping Using State-Of-Art Machine Learning Models
	Nur Najahatul Huda Saris*; Nazirah Mohd Razali; Nurul Ashikin Daud	**325** Simple Machine Learning Approach for Liquid Concentration Estimation Employing Fiber Optic Tip Sensor
	Zara Nasar*; Shahmin Sharafat; Muhammad Azhar; Syed Waqar Jaffry	**140** Civil Data Mining using Machine Learning
	Xolani P YOKWANA*; Thapelo Mosetlhe; Adedayo Ademola Yusuff	**322** Faults in Microgrids with Windturbines and Photovoltaic system: A Review
	Xolani P YOKWANA*; Thapelo Mosetlhe; Adedayo Ademola Yusuff	**324** Experimentally Fault detection scheme on shading and cracks in PV modules

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 1B: Biomedical Engineering & Systems - Mixed Topics
Room B

09.45-11.00	Urvashi Dr Shukla*; Shreeya Garg	**272** LightFFNet: MDD Prediction on EEG Quantitative Biomarkers
	Geetanjali sharma; Amit Mahesh Joshi*	**273** A Fractal based Machine Learning Method for Automatic Detection of Epileptic Seizures using EEG
	Ikram Asghar*; Rahmat Ullah; Mark Griffiths; Rhys Thomas; Geraint Frowen	**12** Exploring the Impact of an Augmented Reality Application for Bespoke Musical Instruments
	Shihchung Chiang	**95** Bounded Issues on a Class of Integral Equations with Weakly Singular Kernels
	Yoko Seki	**96** A Preliminary Study on Handwriting Classification Using Motor Information

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 1C: Modern Communication Technology Room C		
09.45-11.00	Siti Ummi Masruroh*; Yusran Syuja Farghani; Aries Kusdaryono; Andrew Fiade; Rizka Amalia Putri; Luigi Ajeng Pratiwi	**51** Comparative Analysis of Testing Black Hole Attack and Rushing Attack on VANET (Vehicular Ad-Hoc Network) with AOMDV Routing Protocol
	Mohammad Tayseer Alsharat	**67** Dynamic Waste Collection Model for Smart Bins In Smart Cities
	Hyeong Seon Yoo*; William Emmanuel S. Yu	**85** Building a QoS Testing Framework for Simulating Real-World Network Topologies in a Software-defined Networking Environment
	Alexey Shuklin; Danila S Parygin*; Alexander Gurtyakov; Oksana Savina; Nikolay Rashevskiy	**133** Synthetic News as a Tool for Evaluating Urban Area Development Policies
	Mashael M. Alsulami	**243** Exploring User's Perception of Explainability of Blocked Content in Online Social Network Services
	Jehangir Arshad, Adnan Yousaf, Ateeq ur Rehman*, Chaudhry Ahmed Ijaz, Sania Habib, Huzaifa Abid, Rao M asif	**333** Implementation of an Intelligent Parking System
BREAKFAST / LUNCH / DINNER/TEA BREAK		

PLENARY SESSION 1

Plenary Session 1: Keynote Speaker		
Room A		
11.15-11.45	**Prof. Madya. Ts. Dr. Mardeni Bin Roslee**	*Title:* 5G Dynamic Spectrum Management Based V2V Communication

PARALLEL SESSIONS 2

Parallel Session 2A: Neural Networks, Deep Learning and Intelligent Systems		
Room A		
11.45-13.15	Yohei Hazama*; Hitoshi Iima	**72** Evolutionary Multi-task Optimization Introducing Task Assignment Based on a Search Degree
	Dr. Razib Hayat Khan	**116** Improved Fake News Detection Method based on Deep Learning and Comparative Analysis with other Machine Learning approaches
	Junjun Zhang*; Zhengyan Cui; Hyun Jun Park; Giseop Noh	**246** BHGAN: A Hierarchical Graph Network Based on Feature Enhancement
	Neerav Sharma*; Rahul Dev Garg	**269** Real-Time Computer Vision for Transportation Safety using Deep Learning and IoT
	ABDOULAYE DIALLO*; Lionel AFFOGNON; Cherif DIALLO; Eugène C. EZIN	**282** Deep Learning Based Binary and Multi-class Classification Comparison for Anomaly Detection
	Mirza Fuad Adnan*; Nadim Ahmed; Imrez Ishraque; Md. Sifath Al Amin; Md. Sumit Hasan	**308** Traffic Congestion Prediction using Deep Convolutional Neural Networks: A Color-Coding Approach
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Parallel Session 2B: Smart Grids & Energy Management/ Alternate Energy Systems - Mixed Topics		
Room B		
11.45-13.15	King Harold A. Recto*; Miguel Escoto; Noel Hernandez	**126** Quality Improvements in the Electrical Design of Typical DC-DC Electronic Power Converter for High-Voltage Applications
	Mazyed A. Al-Tak*; Mohd Fadzil Ain; Omar Sh Alyozbaky; Prof. Mohamad Kamarol Mohd Jamil USM	**232** Impact of Shunt Reactor Overvoltages Switching in High Voltage System
	RASMANE BANDE*; Mohammed OUASSAID	**284** A Price/Power Weighting Based Linearization Approach With a Battery Management System for an Appliance-scheduling Model
	Mha Albqmi ; Nathalia Basegio-Castellani ; Amani Belaiba; Gassan Hodaifa*	**199** Mixing degree effect in the photodegradation of olive mill wastewater
	Tariq Jamil*	**231** Design of an Android-based remotely-accessible system to detect ripeness of dates in palm trees
	Gassan Hodaifa*; Amani Belaiba; Ana Malvis; Mha Albqmi	**239** Influence of industrial olive mill wastewater pretreatment on the Scenedesmus obliquus growth
	Jihyung Kim*; Jonghyeon Ka; yelin Lee; Younghak Lee; Sangyeon Park; Wooksung Kim	**250** Mixed Reality-based Outdoor Training System to Improve Football Player Performance
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Parallel Session 2C: Smart Grids & Energy Management		
Room C		
11.45-13.15	Khaleeq Tajamal; Muhammad Usman	**9** A Review on the Hybrid Solar-Wind-Pumped Hydroelectric Energy Storage Systems
	Farhan Shams	**43** Thermal Imaging of Utility Power Lines: A Review
	Sunday Adeleke Salimon*; Gafari Abiola Adepoju; Isaiah Gbadegesin Adebayo; Ismail Adeyemi Adeyemo; Abiodun Aderemi Baruwa; Ayooluwa Peter Adeagbo	**110** Cost-based Optimal Allocation of Shunt Capacitors in Radial Distribution Networks considering Load Types
	Timbang Pangaribuan	**125** The Impact of Voltage Changes Due to Synchronization of Solar Power Plant 618.8 KWp At HKBP Nommensen University
	Paula Zenni Lodetti*; Beatriz B Cardoso; Luis Gustavo O. B. Ulhoa; Luciano Benvenuti Roncalio; Lucas de Paula A. Pinheiro; Orlando da Silva Santos; Marcos Aurelio Izumida Martins; Diogo V Joao	**136** Blockchain-based Model for Trading Smart Contracts for Shared Energy Generation in Brazil
	Mai Hoang Nguyen	**202** Application of Fuzzy Sliding Mode Control Supercapacitor – Battery System in PV Solar connect to Grid

BREAKFAST / LUNCH / DINNER/TEA BREAK

PLENARY SESSION 2

Plenary Session 2: Keynote Speaker		
Room A		
13.45-14.15	**Prof. Dr Mohamad Kamal A Rahim**	*Title: Antenna with Electromagnetic Band Gap Structure (EBG) for Future Wireless Application*

PARALLEL SESSIONS 3

Parallel Session 3A: Modern Communication Technology- Antenna & Wave Propagation -MT		
Room A		
	Omar Hiari*; Raed Mesleh; Neveen Aljanini	**145** On the Reliability of Space Modulation Techniques
	Raed Mesleh*; Omar Hiari; Mohammad Abu Daya	**147** Massive MIMO With Few Number of Transmit Antennas: Space Shift Keying–Steiner Triple System
	FADLI FAD SIRAIT*	**263** The Effective Zone Routing Protocol Design Using Deep Recurrent Neural Network for The Next Generation Wireless Network
	Vikram Maurya; Ravi Kumar Maddila*	**281** Design and performance analysis of visible light communication system with noise mitigation
14.15-15.45	Posathip Sathaporn; Woranidtha Krungseanmuang; Vasutorn Chaowalittawin; Thanavit Anuwongpinit; Boonchana Purahong; Isoon Kanjanasurat; Attasit Lasakul ; Chawalit Benjangkaprasert*	**289** SVoice Over IP Integration Platform Performance Using EC2 AWS Cloud Service
	Osama Majeed Butt*	**228** Design of an incinerator working on solar PV powered electrolyzer for municipal solid waste management
	JINWOO KONG*	**265** Experimental study of radio-free communication in the constrained space of vessel using metal surface wave communication
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Parallel Session 3B: Information and Network Security - Education & Technologies (E·learning)

Room B

14.15-15.45	NUR HIDAYAH MD NOH*; Mohd Talmizie Amron; MOHAMAD AMIRUDDIN MOHAMAD	**77** System Characteristics in Predicting E-Learning Acceptance: An Extended Technology Acceptance Model (TAM) Study
	Issa A.R Djinko; Thabet Kacem*; Anteneh Girma	**121** Blockchain-based Approach to thwart Replay Attacks targeting Remote Keyless Entry Systems
	samira said ibrahem	**122** Improved Automated Essay Grading System Via Natural Language Processing and Deep Learning
	Tania Morales*; Chabely Figueredo ; Ana Guédez ; Geri Bucheli	**200** Convergence between technology and education for sustainable development in Latin America.
	Vadivel Ramasamy; mayukha selvaraj*	**227** Port Scanning Mitigation Strategies for Penetration Testing: Blue Team Perspective
	Mohd Kamir Yusof	**216** Design and Implement of REST API for Data Integration

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 3C: Smart Grids & Energy Management
Room C

14.15-15.45	Ibrahim Mwammenywa*; Dmitry Petrov; Philipp Holle; Ulrich Hilleringmann	**225** LoRa Transceiver for Load Monitoring and Control System in Microgrids
	Asma Idris Fatani*; Ahlam AlAhdal	**229** Inspections and detection system for hotspotsin photovoltaic farms using UAV
	Michael A. Boateng*; Daniel Afriyie; Joel Akorli; Kojo Acquah; Ambrose Dery	**107** Design and Simulation of a Versatile Three-Phase Automatic Change-over Switch
	Tayyeba Bashir, Tan Zhongfu, Burhan Sadiq, Nasif R Jaffri, Muhammad W Rana*; Hassan Mahmood	**100** Impact of green human resource practices on work performance: The mediating role of organizational commitment and employee loyalty and moderating role of green life style
	Muhammad W Rana*; Sufang Zhang, Abbass Butt	**106** Prioritizing CPEC Energy Projects using AHP and TOPSIS Technique
	Saif Ur Rehman*	**344** Efficient Electric Vehicle Charger Based on Wide Band-gap Materials for V2G and G2V.

BREAKFAST / LUNCH / DINNER/TEA BREAK

PARALLEL SESSIONS 4

Parallel Session 4A: Robotics and Automation - Mixed Topics		
Room A		
16.00-17.15	Rahmat Ullah*; Ikram Asghar; Mark Griffiths; Gareth Evans; Rory Dennis	**45** An Autonomous Vehicle prototype for Off-Road Applications based on Deep Convolutional Neural Network
	Tudor Alexandru Filip; Ina Turcan; Vlad-Andrei A Scarlatache; ALIN DRAGOMIR; Marius Andrei Olariu*; Marius Andrei Olariu	**327** Electric Field Numerical Modeling and Simulation of V-Shaped Interdigitated Microelectrodes
	Mohammad Zare*; Michael Pflanz; Michael Schirrmann	**331** Introducing a smart monitoring system (PHLIP) for integrated pest management in commercial orchards
	Andreas Mallas*; Maria Samanta; Michalis Xenos	**217** Evaluating a Game-based and a Web-based User Interface Using Skin Conductivity Signals and Gamers and Non-Gamers Preferences
	Hyungseok Yun; Gilseung Ahn; Sun Hur	**84** Shapelet Selection for Efficient Time Series Classification by Dynamic Time Warping
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Parallel Session 4B: Signal and Image Processing Techniques - Robotics and Automation - MT		
Room B		
16.00-17.15	Ali Alowayr*	**244** Investigating the Use of Mobile Learning in Saudi Higher Education: The Perspective of Undergraduate Students
	Ankush Agarwal*; Shikha Verma	**132** Analysis of urban area extracted from NDBI and classification approach by using satellite data
	Deepak Rai*; Shyam Rajput	**177** Estimation of Darkness factor from Low-light Images based on Adaptive Neuro-fuzzy Inferencing Technique
	Kavitha R*	**258** Texture Features in Prediction of Bread Edibility
	Abdurrahman Yilmaz*; Osman Ervan; HAKAN TEMELTAS; Ibrahim Akduman	**283** An Autonomous Robotic System for Ground Surface and Subsurface Imaging

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 4C: Systems Education & Technologies (E·learning)		
Room C		
16.00-17.15	Ngoc Thien Male Le	**47** Digitalizing The Speed Control Circuit Of Three-Phase Induction Motor Based On Pulse-Width Modulation Using Proteus Software
	Wen xiaoxia	**330** Post-Covid Teaching of Physics Experiments Through Flipped Classroom & Blended Teaching Practice at College
	YuenFook Chan*; Nurharani Selamat; Suthagar Narasuman; Priyadarshini N Narayanan	**188** The Mediating Effect of Academic Behaviour towards Mobile Phone Use and Intention for Mobile Learning among University Students
	Pornjit Pratumsuwan*	**291** Simulation-based Learning in Fluid Power Engineering through Line Chat Application
	chukwuka victor Obionwu*; Christian Harnisch; Kalu kalu; David Broneske; Gunter Saake	**351** An intervention strategy for mitigating the prevalence of syntax errors during task exercise engagements
BREAKFAST / LUNCH / DINNER/TEA BREAK		

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PLENARY SESSION 3

Plenary Session 3: Keynote Speaker		
Room A		
09.00-09.30	**Prof. Marcello Chiaberge/ Mauro Martini**	*Title:* Position-Agnostic Autonomous Navigation in Vineyards with Deep Reinforcement Learning

PARALLEL SESSIONS 5

Parallel Session 5A: Antenna & Wave Propagation – Mixed Topics		
Room A		
09.30-11.15	Muhammad Asfar Saeed*; Augustine Nwajana	280 A novel beamforming antenna array for 5G and beyond applications
	Muhammad Fahad Munir*; Abdul Basit, Wasim Khan, Athar Waseem, Ahmed Saleem, Abdurrehman Alsalehi	16 Frequency Quadrature Amplitude Modulation based Scheme for Dual Function Radar and Communication Systems
	Tatsuya Mimura; Yohei Nakada	3 Enhancements of Pass Play Quantification Method with Geometric Features of Formations
	Tomonori Kouya	74 Optimization of mixed-precision iterative refinement using parallelized direct methods
	dicky H syahchari*; Hardijanto Saroso	80 A Global Trend of the Smart Home Research: A Bibliometric Analysis
	Chang Fei Yee	91 Complementary Technique of Flight Time Compensation for 6.4 Gbps DDR5 Transmission Link on Dense PCB
	Trupti Kamlesh Harhare*; Milind S. Shah	124 Analysis of Acoustic Correlates of Marathi Prosodic Features for Human-Machine Interaction
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Parallel Session 5B: Information and Network Security **Room B**		
09.30-11.15	Dheeraj Kumar	**161** Novel Scheme for Mutual Authentication to Isolate Sinkhole Attack in Wireless Sensor Networks
	Jeyaselvi M; Jayakumar C; Sathya M; JAFAR ALI IBRAHIM SYED MASOOD*; Kalyan Chakravarthy N.S	**167** Cyber security based Multikey Management System in Cloud Environment
	Kaibin Xie	**186** Analysis on Stability of IoT Ecosystem Based on Three-Party Evolutionary Game
	Jirawan Niemsakul; Kasin Ransikarbum*; Duangpun Singkarin	**204** Hospital-Location Classification and Analysis in the Healthcare Cold Chain using K-means Algorithm
	Hudan Studiawan*; Tohari Ahmad; Bagus J. Santoso; Baskoro A. Pratomo	**222** Forensic Timeline Analysis of iOS Devices
	Sufyan Almajali*; Thaer Hamad	**293** A Cost-Effective Multilayer Authentication Framework for Large-Scale IoT Deployments
	Amalsha Amaratunga; Tharindu Weerasinghe	**304** A Novel Mechanism to Detect Cooperate Data Leakages via Digital Watermarking
	Kaibin Xie	**323** A Stackelberg Game for Balancing Profits in IoT Ecosystem

| Parallel Session 5C: Biomedical Engineering & Systems – Mixed Topics |
| Room C |

09.30-11.15	Zehor Belkhatir*; Aditi Iyer; James Mathews; Maryam Dr. Pouryahya; Saad Nadeem; Joseph Deasy; Aditya Apte; Allen Tannenbaum	**182** Robust Texture Analysis via Optimal Mass Transport: Application to Medical Images Classification
	Majid Moghaddam	**306** Design and Implementation of Wearable Artificial Kidney Telemonitoring System
	Faten Imad Ali*; Tariq Emad Ali; Ali Hamad	**264** Telemedicine Framework in COVID-19 Pandemic
	Rizwan Qureshi*	**312** A Deep Learning Framework for the Classification of ECG Signals
	Syed Mohammad Abbas Zaidi*; Prashant Ahluwalia	**172** Energy Efficient Clustering to Improve Lifetime of Wireless Sensor Networks
	Guochao Wan*; Ahmad Yahya Dawod; somsak chanaim	**173** Dynamic Evolution of Technical Achievement in China's Provinces
	Promise Ricardo Agbedanu*; Faiza Umar Bawah; Vivian Akoto-Adjepong; Nicodemus Songose Awarayi; Isaac Kofi Nti; Samuel Boateng; Peter Nimbe; OWUSU NYARKO-BOATENG	**194** BLOCOVID: A blockchain-based COVID-19 digital vaccination certificate verification system

Tea Break

PARALLEL SESSIONS 6

Parallel Session 6A: Alternate Energy – Mixed Topics Room A		
11.30-13.00	Re-Ann Cristine O Calimpusan	**109** Design and Development of IoT-based SMART Monitoring System for Hydro-Powered Generator
	Abdullah Al Mamun*; Iftadul Islam Sakib; Khan Farhan Ibne Faruque,; Mohammad Rejwan Uddin; Khosru M. Salim	**311** A Grid-Tie Microinverter Design Based on Dual-Switch Flyback Topology for Solar PV Application
	SONON M. Kevin*; Patrice Koffi CHETANGNY	**326** Optimization of photovoltaic plant capacity with battery storage for injection into main network: Case of Illoulofin solar plant in Benin
	Waheed Aftab Khan, Hafiz Fuad Usman*, Ali Raza, Khuram Abbas, Adnan Yousaf, Manzoor Ellahi	**268** A Scheme for Transfer of Load between HVDC and HVAC Link
	Saeed Ahmad, Mustafa Shakir, Bilal Ahmad, Zain Aslam, Muhammad Qaiser, Sohaib Aslam*	**187** Development of an IoT based DAQ system for PV monitoring and management
	Zimbini Z Faniso-Mnyaka*; Vusi Skosana; Muhammad Nana; Edwin Magidimisha	**296** Image Quality Assessment Methods for Near-Infrared Wildfire Imagery
	Kedir Besher; Ian OKidhain; Lucas Wick; Mohammed Ali	**153** Congestion Control of Healthcare Packet Routing in 5G Edge Computing Networks

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 6B: Artificial Intelligence		
Room B		
11.30-13.00	Meshal Almoshaogeh*	**1** Application of Random Forest Model for Traffic Accidents Severity Prediction in Qassim Province of Saudi Arabia
	Yasmany Fernández Fernández*; Sira M. Allende-Alonso; Ridelio Miranda-Pérez; Gemayqzel Bouza-Allende; Elia N. Cabrera-Alvarez	**14** A Predictive Model for R0 (SARS-COV2)
	Vaishnavi S	**41** PRODUCT RECOMMENDATION USING SENTIMENTAL ANALYSIS
	Ayşenur Kalmaz*; Osman Akın	**302** Estimation of Mobile Phone Prices with Machine Learning
	Hassane TAHIR	**313** A Context Approach to improve Data Anonymization Process
	Lorena C Ilagan	**5** Comparative Analysis of KNN, Random Forrest, Decision Tree and SVM in Application to Millimeter Wave Chemical Detection
	Christopher Thembinkosi CT Mcineka*; Nelendran N Pillay	**259** Machine Learning Classifiers Based on HoG Features Extracted from Locomotive Neutral Section Images

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 6C: Software Engineering - Mixed Topics
Room C

11.30-13.00	Steve haga; Wei-ming Ma*; William Chao	**58** Inconsistency Checking of UML Sequence Diagrams and State Machines Using the Structure-Behavior Coalescence Method
	Tsumbedzo Mukange*; Josef Langerman	**278** The Alignment between DevOps and Business Outcomes
	Hong-Thai Nguyen*; Yu-Ming Tsao; Hsiang-Chen Wang	**245** Detection of weak micro-scratches by semantic segmentation
	Prithvirajan D*; Mathirajan M	**247** A Recommended System with a Solution Architect in Minimizing the Lead Time of Last Mile LPG Distribution in India
	dicky H syahchari*; Anggraeni Woro Hapsari	**260** Utilizing Monte Carlo Simulation to Determine Value at Risk in the Wireless Telecommunications Industry
	Virna Onofri*; Thales A. C. Maia	**270** Fault Analysis of a Ladle Furnace Transformer caused by Switching Transient and Ferroresonance

BREAKFAST / LUNCH / DINNER/TEA BREAK

PARALLEL SESSIONS 7

Parallel Session 7A: Neural Networks, Deep Learning and Intelligent Systems Room A		
13.30-15.15	Tanjila Farah*; Kazi Soumik Islam ; Sumit Kumar das	**44** Myeloma, Melanoma, Lung, Breast, Colon and Brain Cancer Detection Using Deep Learning in Web Based Application
	Diponkor Bala*; Mohammed Mynuddin; Mohammad Iqbal Hossain; Mohammad Anwarul Islam; Mohammad Alamgir Hossain; Md. Ibrahim Abdullah	**87** A Robust Plant Leaf Disease Recognition System Using Convolutional Neural Networks
	Diponkor Bala*; Mohammad Anwarul Islam; Mohammad Iqbal Hossain; Mohammed Mynuddin; Mohammad Alamgir Hossain; Md. Shamim Hossain	**89** Automated Brain Tumor Classification System using Convolutional Neural Networks from MRI Images
	Pranav Ramesh; Angel Arul Jothi J	**97** Predicting Covid-19 cases for 12 countries using Long Short-Term Memory
	Toai Kim Tran	**159** Constructing a Cryptocurrency-Price Prediction Model Using Deep Learning
	Ngoc Thien Male Le	**169** Leveraging Deep Learning Model for Emergency Situations Detection On Urban Road Using Images From CCTV Cameras
	Mohammad Samin-Al-Wasee*; Promee Shankar Kundu; Israt Mahzabeen; Tasnim Tamim; Dr. Golam Rabiul Alam	**221** Time-Series Forecasting of Ethereum Price Using Long Short-Term Memory (LSTM) Networks

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 7B: Robotics and Automation
Room B

13.30-15.15	Dinh Van Do	**68** Design dual-fuzzy adaptive controller for industrial robotic manipulators
	Nikolaos Kouvakas; Fotis N Koumboulis*; Dimitrios Fragkoulis; Enti Zoto	**123** Supervisory control for surge prevention in a gas compressor station with actuator faults
	Virbora Ny*; Srun Channareth	**144** Implementation of Matrix Drone Show Using Automatic Path Generator with DJI Tello Drones
	Mpedi Mokonyama; Masike Malatji*; Wilton Mlitwa	**211** Addressing operational challenges of small and medium enterprises of the logistics industry – Potential for autonomous vehicles
	Khwanchanok Pimpetch*; Khwanchanok Pimpetch; ♂Jongkol Srithorn	**251** Waste reduction in production for plasma cutting process by applying the MES system
	Sathit Rungsawang*; ♂Jongkol Srithorn	**255** Improvement of the latex adhesive production control system based on the concept of Lean Automation
	Zehra Karagöz Küçük*; Nazmi Ekren; Mustafa Şahin	**135** Review of Power Transmission Line Inspection Robots Moving on Ground Wire
	Fawad Salam Khan, Sikandar Khan, Athar Waseem*, Muhammad Numan Ali Khan, Sajid Ali, Arshad Jamal, Imam Abdulrahman Bin Faisal, Hamid Khan, Rizwan Ahmed	**137** Federated learning-based UAVs for the diagnosis of Plant Diseases

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 7C: Signal and Image Processing Techniques Room C		
13.30-15.15	Ritesh Ajoodha	**22** Music Classification Using Fourier Transform and Support Vector Machines
	Ritesh Ajoodha	**23** A Content-Based Collaborative Filtering Movie Recommendation System using Keywords Extractions
	Koki Takenaka; Kenji Ozawa	**99** Multiple Noise Suppression Based on Simultaneous Learning and Independent Estimation of Amplitude and Phase of Noise
	Nauman Ahmed; Sikandar Khan*; SAJID ALI; Rizwan Ahmed; Rahisham Abd. Rahman; Mamon M. Horoub; Malik Zain Ishaq; Arshad Jamal ; Sadaqat Ali	**134** A comparative study among swarming intelligence algorithms and subspace based algorithms for high resolution direction of arrival estimation
	Ananya Bhattacharjee; R Murugan*; Dr. Tripti Goel; Dr. Shankar K.	**252** A powerful Transfer learning technique for multiclass classification of lung cancer CT images
	Amith Jooravan*; Serendra Reddy; Nelendran N Pillay	**256** Comparative Study of Binary Classifiers for Reducing False Negative Detection of Melanoma in Skin Lesions
	Arvind Mukundan*; Hsiang-Chen Wang; Yu Ming Tsao	**339** A Novel Multipurpose Snapshot Hyperspectral Imager used to Verify Security Hologram
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Tea Break

PARALLEL SESSIONS 8

Parallel Session 8A: Neural Networks, Deep Learning and Intelligent Systems **Room A**		
15.30-16.30	A.K.M. Salman Hosain*; Md Humaion Kabir Mehedi; Irteza Enan Kabir	**234** PCONet: A Convolutional Neural Network Architecture to Detect Polycystic Ovary Syndrome (PCOS) from Ovarian Ultrasound Images
	Yung Gi Wu*; Meng Hua Yang; Guan Lin Pan; Bao Hao Shi; Yi Zheng Chen; Jia Hao Chang; Yu Xiang Chiu	**240** Interactive Intelligent Exercise System Design for the Elderly
	Madhurananda Pahar*; Grant Theron; Thomas Niesler	**334** Automatic Tuberculosis detection in cough patterns using NLP-style cough embeddings
	Krassimira Dr. Stoyanova*	**65** A combination of Broyden-Fletcher-Goldfarb-Shanno (BFGS) and bisection method for solving portfolio optimization problems
	RAYMUNDO JUAREZ*; VADIM AZHMYAKOV; MANUEL ALEJANDRO CORRALES; CARMEN BORREGO	**301** Robust Stabilization for a Class of Descriptor Systems under Input Delays: The Attractive Invariant Ellipsoid Approach
BREAKFAST / LUNCH / DINNER/TEA BREAK		

Parallel Session 8B: Mixed Topics
Room B

15.30-16.30	Abdul Ali Khan*; Punithavathi Thirunavakkarasu	**290** Characterization of plain and ZnO coated D-shaped plastic optical fiber sensor of different diameters
	Tharindu Weerasinghe	**303** Importance of effective delegation in a startup or small-scale IT organizations
	Abdullah Al Mamun*; Khan Farhan Ibne Faruque,; Iftadul Islam Sakib; Mohammad Rejwan Uddin; Khosru M. Salim	**307** Closed-Loop Full-Bridge HF Converter Based Electric Three-Wheelers Battery Charger with CC-CV Charging Technique for Extended Battery Life
	Muhammad W Rana*; Sufang Zhang, Iqra Hamid	**105** An Empirical Study of Model and APPs Design of the Adoption Ease of Mobile Payments
	Tasnim Alam Fahim; Asif Khan Shakir; Md. Maruf Hassan; Md. Rajib Mia; Nuruzzaman Faruqui*	**24** An Exploratory Analysis of Automatic Drug Addiction Prediction & Discovery of Feature Correlation

BREAKFAST / LUNCH / DINNER/TEA BREAK

Parallel Session 8C: Mixed Topics		
Room B		
15.30-16.30	saranyaraj D	**28** Image De-noising and Edge Segmentation using Bilateral Filtering and Gabor-cut for Edge Representation of a Breast Tumor
	Wappi Francis Djumo ; Shaolin Lee Govender; Sanele Raphael Matha; Timothy T Adeliyi*	**64** Adoption of Augmented Reality To Enhance Durban University of Technology's Learning Management System
	Masaaki Fujii*	**214** Fast Transmit-Phase Optimization and Tracking to Moving Target in Distributed-Antenna Wireless Energy Transfer
	Deborah O Oluwadele*; Yashik Singh; Timothy T Adeliyi	**224** A Hybridized Framework for Designing and Evaluating E-Learning Students' Performance in Medical Education
	Ehimwenma S OMOREGBEE*; Mandoye Ndoye; Jesmin Farzana khan	**314** Shift Invariant Support Vector Machine for Image Classification in Automatic Target Recognition Systems
BREAKFAST / LUNCH / DINNER/TEA BREAK		

CLOSING SESSION

Session 00: Closing Session – Closing Remarks by Conference Chairs	
Room A	
16:30-17:00	**Best Paper Announcement** **Closing Remarks by Conference Chairs:** *Prof. Dr. Mardeni Bin Roslee, MMU, Malaysia* *Dr. Adnan Yousaf, Superior University Lahore, Pakistan*

Thank you very much for your contributions.