

Day 3: 04 December 2024, Wednesday						
Time	Lotus 4A&4B	Melati Jr 4111	Orchid Jr 4211	Orchid Jr 4212	Orchid Jr 4311	Orchid Jr 4312
0800 - 1200	Registration					
	W-1-1 Power and Energy 5	W-2-1 Communication Networks 2	W-3-1 Information 8	W-4-1 Electronics 7	W-5-1 Special Session on Optical Wireless Communications	W-6-1 Special Session on AI in Clinical Technologies: Present and Future 3
0900 - 0915	W-1-1.1 : 1571041849 Optimal Configuration of Offshore Vertical-Axis Wind Turbine Farms	W-2-1.1 : 1571041651 Enhancing the Security of Encrypted Communication Systems Through Redundancy Design	W-3-1.1 : 1571041894 Development of an RAG-Based LLM Chatbot for Enhancing Technical Support Service	W-4-1.1 : 1571054596 Expanding I/O Pins of Microcontroller by Cascading Shift Registers	W-5-1.1 : 1571057227 Joint Model and Data-Driven Coherent Transceiver Design in Laser Phase Noise - Dr Wang Qian	W-6-1.1 : 1571042001 Vision-Based Model for Continuous Monitoring and Evaluation of Multiple Digital Screen Exposure
0915 - 0930	W-1-1.2 : 1571042861 Advancements in Efficient and Sustainable Wireless Charging for Electric Vehicles	W-2-1.2 : 1571050805 Joint Angle and Rang Estimation With Low-Cost RIS-Assisted FDA Direction Finding System	W-3-1.2 : 1571041676 Window-Based Quaternion Principal Component Analysis of Eye Gaze Dynamics for Depression Severity Prediction	W-4-1.2 : 1571033667 Temperature Dependence of Photogenerated Carriers in GaN Layer of AlGaIn/GaN HEMT	W-5-1.2 : 1571057136 Nonlinear Impairments Mitigation in Visible Light Communication Systems - Dr Li Xiang	W-6-1.2 : 1571041707 Remote Blood Pressure Measurement Through Facial PPG Signals
0930 - 0945	W-1-1.3 : 1571033203 Power-Sharing Mechanism for a Modular Robot Using Power Packet	W-2-1.3 : 1571033902 Teaching the Internet With AR and Toy Bricks	W-3-1.3 : 1571050550 Preliminary Study of LLM-Based Wordlist Generation for Validating	W-4-1.3 : 1571034474 Adaptive Step Length Estimation and GNSS Integration to Improve	W-5-1.3 : 1571057069 Transceiver Impairments Estimation by Number Theoretic	W-6-1.3 : 1571043942 TriSpectralLSTM for COPD Detection via Lung Sound Analysis
0945 - 1000	W-1-1.4 : 1571044206 Enhanced Battery Degradation-Aware Scheduling for Distribution	W-2-1.4 : 1571041949 Cooperative Localisation System Using Ultra-Wide Band and GPS	W-3-1.4 : 1571033254 Wi-Fi Based Human Activity Recognition Using BiLSTM With Kernel	W-4-1.4 : 1571034476 NLOS Satellites Detection Method Applying Relative Positioning	W-5-1.4 : Retroreflective Optical ISAC Using OFDM and Corner Cube Reflector	W-6-1.4 : 1571025214 WENN-4: Weighted Ensemble for Enhanced Diabetic Retinopathy
1000 - 1015	W-1-1.5 : 1571050089 Optimal Sizing of Hybrid PEMFC/Lithium-Ion Battery Power Systems Using Rule-Based Cycle Charging Algorithm for Telecommunication	W-2-1.5 : 1571038223 Optical Twist Sensor Based on Femtosecond Laser Inscribed In-Fiber Micro-Structure	W-3-1.5 : 1571040784 Human Activity Recognition Based on the GRU With Augmented Wi-Fi CSI Signals	W-4-1.5 : 1571041875 High Speed Low Power Dynamic CMOS Comparator for SAR ADCs	W-5-1.5 : Recent Progress on Visible Light Communications -Dr Shen Chao	W-6-1.5 : 1571041960 Speaker Recognition Using Deep Learning Techniques
1015 - 1030	W-1-1.6 : 1571049627 Research on AI Energy Management of Ultra-Speed Magnetic Levitation Flywheel Energy Storage	W-2-1.6 : 1571049843 Enhancing Music Source Separation Using U-Net and Generative Adversarial Network	W-3-1.6 : 1571039801 Machine Learning Algorithm for Handwritten Numerical Character Identification Using FPGA Based Custom IP Core	W-4-1.6 : 1571034611 Design and Implementation of a oneM2M-Based Remote Monitoring System for Water Supply in Water Distribution Networks	W-5-1.6 : 1571035687 Simulation and Experimental Validation of Optical Camera Communication	W-6-1.6 : 1571034123 Speech Emotion Recognition With DNN and Combination of CNN-LSTM
1030 - 1100	Tea Break (Orchid Main Ballroom, Level 4)					
	W-1-2 Power and Energy 6	W-2-2 AI in Signal Processng 2	W-3-2 Information 9	W-4-2- Emerging Topics 8	W-5-2 Special Session on Energy-efficient Circuits, Systems and Algorithms for AI-embedded Mobile and Edge Devices	W-6-2 Special Session on Bridging the Gap: Engineering Education Enhanced through Artificial Intelligence
1100 - 1115	W-1-2.1 : 1571034615 Towards Achieving Singapore's Carbon Emission Reduction Goals by Means of Electricity Imports	W-2-2.1 : 1571041288 IMU-Based Model for Precise Toothbrush Stroke and Orientation Tracking	W-3-2.1 : 1571038348 High Speed Small Item Production Line Tracking Using Computer Vision and Cloud Computing	W-4-2.1 : 1571034337 Advancements in Image Enhancement for Improved Knee Ultrasound Segmentation Towards Measurement of Lateral Patellar Tendon	W-5-2.1 : 1571049389 Compact and Lightweight Cable Attitude Measurement Device for Aerial Transportation Applications	W-6-2.1 : 1571046833 Enhancing Accuracy and Stability in Standing Wave Acoustic Levitation Systems
1115 - 1130	W-1-2.2 : 1571049911 Data Interpolation for Mitigating False Data Injection Attacks in Smart Grids	W-2-2.2 : 1571034722 Significance of Corpus Quality for Direct Speech-To-Text Translation Systems	W-3-2.2 : 1571041603 Development of a Web-Based Outcomes-Based Education (OBE) Management System With Drill Down Analysis for Tracking	W-4-2.2 : 1571033621 Image Comparative Index (ICI): A Pixel-Wise Image Similarity Metric for Computational Super-Resolution (SR) Microscopy	W-5-2.2 : 1571043326 Investigation of the Effects of Variable Accuracy Approximate Units in Deep Neural Network Accelerators	W-6-2.2 : 1571039807 An Adaptive Neuro-Fuzzy Framework for Monitoring Student Outcomes With Individualized Dashboard in Outcome-Based
1130 - 1145	W-1-2.3 : 1571034294 Adaptive PV Systems: Using Genetic Algorithm and Random Forest Classifier to Mitigate the Effects of Partial Shading on Solar	W-2-2.3 : 1571034566 Targeted Influence Maximization Using Centrality and Diminishing Weight	W-3-2.3 : 1571041681 Image Encryption Using Chaotic Map	W-4-2.3 : 1571026943 Validating Pseudo-Label Dataset for Japanese Hate Speech Detection	W-5-2.3 : 1571057962 Continual Learning Enabled Smart Industrial Edge Computing Platforms	W-6-2.3 : 1571041613 Criteria-Based Recommender Platform for Achieving Optimal Time-To-Graduation Using Backward Chaining Algorithm
1145 - 1200	W-1-2.4 : 1571043833: Detecting and Localizing Electricity Pilferage Using Deep Neural Networks in a Low Voltage Distribution Network With Both Smart and Traditional Meters	W-2-2.4 : 1571050421 Extraction of Heart Rate From Photoplethysmography Signals on Multiple Sites for Wearable Heart Monitoring Systems	W-3-2.4 : 1571041983 Evaluating Classifier Performance in Mapping Paddy Rice Fields Using Multi-Temporal SAR Data on Google Earth Engine	W-4-2.4 : 1571049147 Intelligent Management System for Industrial Sugar Hoppers in Food Manufacturing Using IoT	W-5-2.4 : 1571042023 CCTV on Steroids: The Design and Implementation of BanAI, a Robbery Prediction System for Edge Devices	W-6-2.4 : 1571049065 Addressing Sustainability Challenges in AI Integration: Data Privacy, Accessibility, and Ethical Considerations
1200 -1215	W-1-2.5 : 1571034478 Optimization of the Operating Point of Multi-Reactive Power Compensation Equipment Considering Facility Characteristics	W-2-2.5 : 1571044975 Heart and Respiratory Rate Extraction From a Single Audio-Based Monitoring System Using Wavelet and Hilbert Transforms	W-3-2.5 : 1571042973 Sign Language Gesture Recognition Using YOLOv9 for Medical Attention of Hard of Hearing Population	W-4-2.5 : 1571042011 Development of Microplastics Detector and Quantifier Utilizing Deep Learning Based Algorithm	W-5-2.5 : 1571062977 A ResNet-Based DVFS Regulator for Heterogeneous Multi-Core Mobile Processors	W-6-2.5 : 1571057365 A Comprehensive Study on AI Applications for Promoting Equity in Engineering Education
1215 - 1230	W-1-2.6 : 1571039402 ELECTRIFAI: An AI-Driven Solution for Enhancing Electricity Distribution Efficiency and Preventing Unauthorized Power Tapping in	W-2-2.6 : 1571041758 EEG Changes During Carbonated-Beverages Swallowing	W-3-2.6 : 1571042062 AttV19Net: Attention Based VGG 19 Network for Hand Gesture Recognition With a Prototype	W-4-2.6 : 1571041787 A Novel Two-Phase Social Network-Based Consensus Mechanism: Opinion Dynamics for Large-Scale Group Decision-Making		W-6-2.6 : 1571057861 Psychological Aspects of AI Enhanced Learning Experiences
1230 - 1400	Lunch, Exhibition & Interactive Forum (Orchid Main Ballroom, Level 4)					
	W-1-3 Power and Energy 7	W-2-3 Renewable Energy and Enegy Storage	W-3-3 Information 10	W-4-3 Emerging Topics 9	W-5-3 Special Session on Advancements in Beam Steering Antenna Systems for Next-Generation 5G/6G and Satellite Communications	W-6-3 Machine Learning in Condition Monitoring
1400 - 1415	W-1-3.1 : 1571042006 A Study on New PWM Signal Generation and Control Methods Application in Power Electronics Control	W-2-3.1 : 1571046386 Cuckoo Search Based MPPT With Quadra Tied Solar PV Array for Maximising Power Extraction Under Partial Shadows	W-3-3.1 : 1571041985 LiCT-Net: Lightweight Convolutional Transformer Network for Multiclass Breast Cancer Classification	W-4-3.1 : 1571042077 Numerical Analysis of the Thermal Properties of Beeswax Based Phase Change Materials for Thermal Energy Storage Applications in	W-5-3.1 : 1571034434 Millimeter-Wave Wide Angle Beam Scanning Composite Right/Left-Handed Leaky-Wave Antenna	W-6-3.1 : 1571041055 A Novel Machine Learning Approach to Optimize Energy Forecasting in Industry
1415 - 1430	W-1-3.2 : 1571048887 Fuzzy Logic Based Model Predictive Current Control for Improved Power Quality in Microgrid Clusters	W-2-3.2 : 1571050817 The Development of a Lithium-Ion Battery Analyzer for Data Driven Analysis of Battery Performance	W-3-3.2 : 1571041908 Quartered Chirp Spectral Envelope for Whispered Vs Normal Speech Classification	W-4-3.2 : 1571050840 AI-Driven Prediction of Indian Criminal Case Outcomes	W-5-3.2 : 1571049261 Enhanced Beam Steering Coverage of Grid Array Antenna Using Dielectric Radome (Invited Talk)	W-6-3.2 : 1571041430 Failure Mode Classification of Wind Turbine Gearbox Utilizing Machine Learning Algorithms
1430 - 1445	W-1-3.3 : 1571044700 RF-To-DC Conversion Circuit With Configurable Impedance Matching Circuit for RF Energy Harvesting in 65nm CMOS Technology	W-2-3.3 : 1571032786 Chanced-Constrained Rolling-Horizon Optimization for the Green Hydrogen Microgrid System Operation	W-3-3.3 : 1571050629 Human-Centered Intention Refinement for LLM-Based Domain-Data Analysis Using Iterative Prompt Generation	W-4-3.3 : 1571049802 Integrating RAG With Face Recognition for Personalized Guest Services in Hotels	W-5-3.3 : 1571049255 A Shared Aperture Hybrid DR Antenna for Dual-Band mmWave 5G Applications	W-6-3.3 : 1571057858 Machine Condition Diagnosis Using Deep Learning and Gabor-Transformed Motor Current Signatures
1445 - 1500	W-1-3.4 : 1571050478 Design of a Multi-Input Boost Converter for Hybrid Power Delivery	W-2-3.4 : 1571056758 Smart Solar Forecasting: Machine Learning Approaches for Predicting Solar Power	W-3-3.4 : 1571038021 Mobile Detection of Macronutrient Deficiencies in Lettuce Plants Using Convolutional Neural Network	W-4-3.4 : 1571033746 Computer Vision Based Safety Inspection in Public Housing	W-5-3.4 : 1571035693 Broadband Single-Feed Metasurface-Based Circularly Polarized Antennas	W-6-3.4 : 1571033748 Machine Learning Approach for the Estimation of Optical Properties for a D-Shaped Photonic Crystal Fiber
1500 - 1515	W-1-3.5 : 1571042688 Current-Prediction Based Transient Control of a Dual-Active-Bridge Converter With Frequency Modulation	W-2-3.5 : 1571035215 Life Cycle Cost Analysis for Solar Energy Harvesting and Storage Options	W-3-3.5 : 1571056709 Optimizing Wheat Ear Head Detection and Yield Estimation Through UAV Based Imagery	W-4-3.5 : 1571050868 An Interactive Web App Playbook With an AI Assistant for Improving Organizational Communication	W-5-3.5 : 1571033907 Optimum Design of Conformal Bandpass Frequency Selective Surface for X-Band RADAR Communications	W-6-3.5 : 1571041314 Machine Learning Approaches for Sensor Fault Mitigation
1515 - 1530	W-1-3.6 : 1571050451 Optimal Harmonic Estimation in Renewable Integrated Power System Using Grasshopper Optimisation Algorithm and Recursive Least Square Approach	W-2-3.6 : 1571050333 Comparative Analysis of Capacitor-Based Active Cell Balancing Topologies for Lithium-Ion Battery Packs		W-4-3.6 : 1571050853 Assessment Mapping Strategies for Competency-Based Computing Education	W-5-3.6 : 1571049753 Design of Inset Feed Microstrip Patch Antenna for Wi-Fi Band Application	W-6-3.6 : 1571050512 Machine Learning in Laboratory Diagnosis
1530 - 1600	Tea Break (Orchid Main Ballroom, Level 4)					
				W-5-3 Emerging Topics 12	W-5-4 Emerging Topics 10	W-6-4 Emerging topics 11
1600 - 1615				W-5-3.1 : 1571034522 Investigation of Bending Performance of Flexible Optoelectronic Synapse Based on ZnO	W-5-4.1 : 1571048956 Translation of Air-Written Baybayin Using Optical Flow in Complex Background	W-6-4.1 : 1571054100 Scalable RFID-Based Automated Attendance Recording and Reporting System
1615 - 1630				W-5-3.2 : 1571041832 N2N2N: A Clean Data Independent Speech Enhancement Approach With Modified cGAN	W-5-4.2 : 1571041860 A Machine Learning-Based Integrated Energy and Water Management System for a Greenhouse	W-6-4.2 : 1571041913 SigAuthUrdu: Signature Verification for Urdu Language
1630 - 1645				W-5-3.3 : 1571050728 Classical to Quantum Neural Network Transfer Learning Approach for Speech Emotion Recognition	W-5-4.3 : 1571050805 Joint Angle and Rang Estimation With Low-Cost RIS-Assisted FDA Direction Finding System	W-6-4.3 : 1571034685 Sliding Window Gradient Sign Attack
1645 - 1700				W-5-3.4 : 1571034325 Scientific and Technological Problems of Modeling Jointly Functioning Artificial and Bioenergy Agro-Ecological Systems	W-5-4.4 : 1571049820 Optimizing Network-Level Forensics With Optuna-Generated CNN Model	W-6-4.4 : 1571048974 Smart Eyewear: African Lovebirds Classification Using Convolutional Neural Networks
1700 - 1715					W-5-4.5 : 1571038374 Swarm Intelligence Feature Selection and Possibilistic Fuzzy c-Means Approach for Enhancement of Classifier Performance in Detection of	W-6-4.5 : 1571041927 Symbiotic Insights Prediction on a Multi-Cooperative Modular Mobile Robot Using Machine Learning
1715 - 1730						W-6-4.6 : 1571056269 RLTQC: Reinforcement Based Tabular Q-Learning for Cowry Game

Session	Interactive Forum Presentation - III
Date/Time	Wednesday, the 4th December 2024 / 12.30-2.00pm
Venue	Orchard Main Ball Room Level 4
Poster ID	Paper ID/Title
W-P.01	1571041803: D-Forged-Net: Discrimination Among Original, Forged, and AI-Generated Handwritings
W-P.02	1571050825: Ransopedia: Your Trusty Guide to Ransomware Trends
W-P.03	1571033761: Teaching AI and Data Analytics to Electrical Engineering Students
W-P.04	1571046781: A Multi-Criteria Analysis of Renewable Sustainable Energy Solutions for Decarbonizing Singapore's Residential Flats and House
W-P.05	1571048792: Collaborative Learning Environments Facilitated by AI Technologies
W-P.06	1571047592: Dimensionality Reduction and Classification Methods for High-Accuracy EMG Signal Interpretation in Prosthetics
W-P.07	1571059739: Enhancing Diagnostic Accuracy the Role of AI in Advanced Radiological Imaging
W-P.08	1571047597: Enhancing Learning: Gamification and Immersive Experiences With AI
W-P.09	1571056827: Innovative Control Strategies for Enhancing Self-Balancing Robots in Dynamic Environments
W-P.10	1571057131: Innovative Sustainable Solutions for Continuous Power Supply in Wearable Technology Through Energy Harvesting
W-P.11	1571056250: Optimizing Deep Learning on Sustainable Embedded Systems: A Study of Handwritten Digit Recognition With CNN and OpenCV
W-P.12	1571046836: Preparing Future Engineers: Strategies for Integrating AI Platforms in Higher Education
W-P.13	1571048601: Enhancing Lower Primary Students Engagement Through Object Detection in Cartoon Images
W-P.14	1571048550: Image Question-Distractors Generation as a Conversational Model
W-P.15	1571050487: Iterative SICNet for Non-Orthogonal Multiple Access
W-P.16	1571043409: Performance Enhancement of Antenna Using Automated, Multi-Size Pixelated Design
W-P.17	1571050392: Safety-Aware Path Planning Using Metaheuristics
W-P.18	1571034055: Stability and Cybersecurity in Inverter Systems With Virtual Inertia and Damping
W-P.19	1571060612: AI-Enabled Augmented Reality in the Medical Industry: Revolutionize User Experience
W-P.20	1571042004: Systems Thinking in the Writing of Logbooks
W-P.21	1571033845: To Land or Not to Land? Digital Twin Approach for Safe Landing of Multirotors on Complex Terrain
W-P.22	1571034363: A Pencil Beam Electron-Optical System for Teahertz Vacuum Electronic Devices
W-P.23	1571033985: Development of a 3kWh Battery-Supercapacitor Hybrid Energy Storage System
W-P.24	1571056247: Sustainable Wireless Charging Solutions: Design and Testing of a Portable Solar-Powered Charging Device
W-P.25	1571037449: Layered Model Stacking: Enhancing DDoS Detection Through Advanced Ensemble Machine Learning Techniques
W-P.26	1571044011: Solar Greenhouse Illumination Using Smart Artificial Lighting System
W-P.27	1571048978: SpeeDF - A Speech De-Identification Framework
W-P.28	1571056759: Teleoperation System Design for a Mobile Robot Using BeagleBone Black Board
W-P.29	1571049612: Prediction of Radio Wave Propagation on Complex Terrains Using Deep Learning Models
W-P.30	1571062825: Quantum Inspired Genetic Algorithm and Optimization of Queuing Delay
W-P.31	1571042716: Advantages and Challenges of FMCW Radar Imaging With Shifting Sub-Bands
W-P.32	1571043662: Exploring the Potential of Power Lines for Sensing Human Activities