

Day 1: 2 December 2024, Monday						
Time	Melati Main Ballroom, Level 4					
0700 - 1700	Registration					
0815 start	Opening Ceremony					
0815 - 0825	Opening remarks by R10 Director Prof Lance Fung					
0825 - 0835	Welcome Remarks TENCON 2024 updates by Arokiaswami Alphones					
0835 - 0850	Technical Program updates by Michael Ong, TPC Chair					
	Keynotes					
0850-0925	Speaker 1: Tom Coughlin Prioritizing Societal and Ethical Concerns for Responsible AI <i>2024 IEEE President & CEO</i>					
0925 - 1000	Speaker 2: Dr Bryan Low Data-Centric AI in the Age of LLMs <i>Director of AI Research, AI Singapore,</i> <i>Deputy Director, NUS AI Institute</i>					
1000 - 1025	Tea Break (Orchid Main Ballroom, Level 4)					
1025 - 1100	Speaker 3: Dr Jonathan Pan Collaborating Together for a Safer and Secure Future <i>Chief, Disruptive Technologies Office,</i> <i>Director, xCybersecurity, Enterprise Group,</i> <i>Home Team Science and Technology Agency (HTX), Singapore</i>					
Time	Melati Jr 4011	Melati Jr 4111	Orchid Jr 4211	Orchid Jr 4212	Orchid Jr 4311	Orchid Jr 4312
	M-1-1 RF Circuits and Antennas	M-2-1 Electronics 1	M-3-1 Information 1	M-4-1 Emerging Topics 1	M-5-1 AI in Medical Applications	M-6-1 Special Session - Artificial Intelligence for Electric Drivetrain Design, Optimization and Control
1100 - 1115	M-1-1.1 : 1571049362 V-Band Power Amplifier MMIC Cell Implemented in GaS	M-2-1.1 : 1571048133 High-Efficiency RF-To-DC Rectifier for Low Power Levels Using Coplanar Waveguide Technology	M-3-1.1 : 1571041951 Shape-Centric Augmentation With Strong Pre-Training for Training From Rendered Images	M-4-1.1 : 1571033964 Development of an Arm With Safety Harness Function to Hold and Release Lifeline for Multi-Rotor Drones	M-5-1.1 : 1571058000 Performance Evaluation of Wearable Nasal Sensor for Respiratory Assessments Using A NOVEL EDRS-LSTM Deep Learning Model	M-6-1.1 : 1571038458 Gear Ratio and Induced Speed Range of Magnetic Gearbox With Speed and Load Conditions
1115 - 1130	M-1-1.2 : 1571034059 Metasurface Inspired Antenna for Wireless Charging of Medical Devices	M-2-1.2 : 1571042055 Configurable FOCV-Based MPPT for Indoor Light and TEG Energy Harvesting Systems	M-3-1.2 : 1571042013 Predicting On-Road Carbon Emissions Using Traffic Camera Images	M-4-1.2 : 1571032876 ProfileOTMM: Automated Glycan Motif Analysis Through Pattern Recognition of Tree Structures	M-5-1.2 : 1571057839 Highresolution Net for Estimation of Fetal Growth Parameters From First Trimester Ultrasound Images	M-6-1.2 : 1571032312 NIRS Acquisition Device for Monitoring Cognitive Load
1130 - 1145	M-1-1.3 : 1571041930 Compact Circularly Polarized Microstrip Antenna With Harmonic Suppression for Enhanced Ambient RF Energy Harvesting	M-2-1.3 : 1571036466 A Non-Overlapping Synthetic Clock Generator for DC-DC Boost Converter in 65 nm CMOS Technology	M-3-1.3 : 1571041417 GAN-Based Tone Curve Learning Approach to HDR Image Reconstruction Method Using Single LDR Image	M-4-1.3 : 1571041730 A Scalable Decentralized Reinforcement Learning Framework for UAV Target Localization Using Recurrent PPO	M-5-1.3 : 1571034321 Automated Detection of Missing Tooth Regions in CBCT Slices for Dental Implant Planning Using CNN With Transfer Learning	M-6-1.3 : 1571038331 The Effect of Latency on the Performance of Remote Driving With Video Streaming
1145 - 1200	M-1-1.4 : 1571028083 A Sub Tera-Hz Antenna for 5G Applications	M-2-1.4 : 1571059089 91.2% Efficiency Low Power Non-Inverting Buck-Boost Converter	M-3-1.4 : 1571032408 Practical Mobile Based Services for Identification of Chicken Diseases From Fecal Images	M-4-1.4 : 1571050784 Online Coverage Path Planning in LIDAR Perception Constrained Environments	M-5-1.4 : 1571033872 Robust Fetal Head Circumference Calculation on Ultrasound Images Using Just-In-Time Compiled Ellipse Fitting	M-6-1.4 : 1571038704 Optimized Parameter Design of Binocular Structured Light System for Precision Reflective Surface CPU in Industrial Assembly Processes
1200 - 1215	M-1-1.5 : 1571044684 A Dual Band Sawtooth Corrugated Vivaldi Antenna Design for Communication Signal Enhancement and Emergency Applications	M-2-1.5 : 1571043231 Dual-Path CCM Boost Converter Optimization for Indoor Light Energy Harvesting in Biomedical Devices	M-3-1.5 : 1571049576 Image Encryption and Decryption Based on Reformed System Transformation	M-4-1.5 : 1571041796 An Enhanced Network Density Based Centrality for Influential Node Detection in Complex Networks	M-5-1.5 : 1571050260 Mental Health Evaluation Through Text Analysis	M-6-1.5 : 1571050190 Design and Analysis of Variable Airgap Permanent Magnet Motor for Electric Drivetrain
1215 - 1230	M-1-1.6 : 1571049396 Design of Planar Inverted-F Antenna (PIFA) for 4G Cellular Base Station With Spectrum Sensing	M-2-1.6 : 1571048174 High PSR Low Power Negative-R-Assisted LDO	M-3-1.6 : 1571038315 Robust Facial Emotion Recognition System via De-Pooling Feature Enhancement and Weighted Exponential Moving Average	M-4-1.6 : 1571050633 Unitary Operator Based Quantum Secure Access Structure for Medical Image Sharing	M-5-1.6 : 1571037035 TFET Based Biosensor Using Dielectric Modulation Technique	M-6-1.6 : 1571044210 A Novel Architecture for Predictive Maintenance and Realtime Monitoring of Electric Vehicle
1230 - 1400	Lunch, Exhibition & Interactive Forum 1 (Orchid Main Ballroom, Level 4)					
	M-1-2 Communications 1	M-2-2 Electronics 2	M-3-2 Information 2	M-4-2 Emerging Topics 2	M-5-2 Special Session on Ethical and Technical Challenges of Deepfakes and Disinformation	M-6-2 Special Session on AI in Acoustic and Speech 1
1400 - 1415	M-1-2.1 : 1571034350 Active Element Arrangement and Prediction Model for Channel Estimation in IRS-Assisted Systems	M-2-2.1 : 1571033666 Characteristics of Crystal Defects in AlGaN/GaN HEMTs at Low Temperature	M-3-2.1 : 1571041817 Multi-Template Siamese Networks With Clique Contrastive Learning for Palm Print Authentication	M-4-2.1 : 1571033966 Estimating the Inclination Angle of Steel Structures Using ToF Camera for Atmospheric Infrastructure Inspection Drones	M-5-2.1 : 1571032837 Advancing Continual Learning for Robust Deepfake Audio Classification	M-6-2.1 : 1571034301 SNIPER Training: Single-Shot Sparse Training for Text-To-Speech
1415 - 1430	M-1-2.2 : 1571063121 Performance Analysis of THz and VLC Systems Under the Impact of Weather and Human Blockages	M-2-2.2 : 1571051700 A 1 μ A Quiescent All-MOS Subthreshold Design Technique of Voltage Reference for Biomedical and IoT Device Applications	M-3-2.2 : 1571049737 YULDetect: A Lightweight Ensemble Based Framework for Automated Software System Vulnerability Detection	M-4-2.2 : 1571049474 Effectiveness of Consumer-Grade EEG Devices in Brainwaves Signal Processing: A Review	M-5-2.2 : 1571034484 Can Deepfakes Mimic Human Emotions? A Perspective on Synthesis Videos	M-6-2.2 : 1571040116 Enhanced Instrument Identification Using CNNs: A Comparative Study With Random Forest Models
1430 - 1445	M-1-2.3 : 1571048990 Timing Synchronization and Data Detection for MIMO OTFS/OTSM Systems Under Spatial Correlation	M-2-2.3 : 1571030981 A Novel Offset Compensation Technique for a High Speed Flash ADC	M-3-2.3 : 1571042046 SecURL: Design and Implementation of a Machine Learning-Based Web Extension for Malicious URL Detection	M-4-2.3 : 1571034512 Knowledge-Based Extraction for Inverse Design of Optical Thin-Films	M-5-2.3 : 1571041785 Leveraging Transfer Learning for Region-Specific Deepfake Detection	M-6-2.3 : 1571050801 Analysis of Features for Dysarthria Severity Classification From Speech
1445 - 1500	M-1-2.4 : 1571042650 Optimization of Virtual Cooperative Spectrum Sensing in UAV-Aided Cognitive Radio Networks	M-2-2.4 : 1571058894 WSe2: ZnO Nanocomposite Based UV Photodetector With PMMA (HTL) and PCBM (ETL)	M-3-2.4 : 1571043639 Refined Trademark Sticker Detection Method Using Minimum Pooling Features	M-4-2.4 : 1571049158 Particle Filter-Based State and Parameter Estimation for Delta Wing UAV	M-5-2.4 : 1571033922 Comparative Analysis of Machine Learning and Deep Learning Models for Deepfake Detection: Insights From the Celeb-DF Dataset	M-6-2.4 : 1571046020 Multi-Label Emotion Share Regression From Speech Using Pre-Trained Self-Supervised Learning Models
1500 - 1515	M-1-2.5 : 1571031164 High Performance Flow Table for 5G Core Networks Based on FPGA	M-2-2.5 : 1571041886 A 2 μ A Quiescent Current Output-Capacitorless LDO With Adaptive Power Transistors for Low Power Management in Energy Harvesting	M-3-2.5 : 1571041988 Improved Text Summarization With RL-Enabled PEGASUS and Siamese Network Evaluation	M-4-2.5 : 1571032464 Object Recognition and Tracking Using Multiple LIDARs	M-5-2.5 : 1571035679 Enhancing Deepfake Detection With Ensemble Learning: A Study on Celeb DF Dataset	M-6-2.5 : 1571033996 Accented Text-To-Speech Synthesis With a Conditional Variational Autoencoder
1515 - 1530	M-1-2.6 : 1571042642 Erroneous Reporting in a Multiple Antenna-Based Cognitive Radio Network Using Soft Fusion Scheme	M-2-2.6 : 1571035409 Impact of Dielectric Materials in an Asymmetrical Shaped Band to Band TFET	M-3-2.6 : 1571050844 Empirical Analysis of Complex-Valued Neural Nets on Real-Valued Tabular Data	M-4-2.6 : 1571032273 Windshield Wiper Control Compensating Chatter Oscillation Characteristic Based on the Phase Difference Between Left and Right Arms	M-5-2.6 : 1571034050 Using Local Phase Quantization to Identify Fake Faces in Online Social Networks	
1530 - 1600	Tea Break (Orchid Main Ballroom, Level 4)					
	M-1-3 Communications 2	M-2-3 Electronics 3	M-3-3 Information 3	M-4-3 Emerging Topics 3	M-5-3 Special Session on Advanced Nanotech for Chiplets towards AI century	M-6-3 Special Session on AI in Acoustic and Speech 2
1600 - 1615	M-1-3.1 : 1571067839 High-Resolution and Low Clutter Radar Point Cloud Generation Method	M-2-3.1 : 1571028720 VLSI Implementation of Recursive CNNs With Multi-Scale Integration for Image Classification Improvement	M-3-3.1 : 1571031491 Minimum Category Confusion for Semi-Supervised Industrial Quality Inspection	M-4-3.1 : 1571034243 SAMIC: Segment Anything Model for Integrated Circuit Image Analysis	M-5-3.1 : 1571049028 Research on Integration of Photonic and Electronic Chips Based on Glass Interposer	M-6-3.1 : 1571049985 Gender Difference in Hearing Health in the United States: A Spatiotemporal Analysis
1615 - 1630	M-1-3.2 : 1571042051 Study on Variable Tee and Bridge Tee Attenuators to Enhance IQ Mixer Sideband Suppression in Synthetic Aperture Radar Applications	M-2-3.2 : 1571033153 Hardware Accelerator for Deep Neural Networks on Edge Devices Based on RISC-V Open Standard Instruction Set Architecture	M-3-3.2 : 1571029083 Speech Signal Analysis Using Fractal Geometry for Phoneme Boundary Detection	M-4-3.2 : 1571034195 ScamDetector: Leveraging Fine-Tuned Language Models for Improved Fraudulent Call Detection	M-5-3.2 : 1571049733 A 25Gbps Single-Ended to Differential Low-Noise Transimpedance Amplifier in 45nm SOI for High-Speed Optical Transceivers	M-6-3.2 : 1571034671 Linear Phase FIR Filter Design for Digital Hearing Aids Using a Neural Network-Based Optimization
1630 - 1645	M-1-3.3 : 1571060414 Performance Evaluation of Cooperative Task Assignment and Path Planning Algorithms in UAV Networks	M-2-3.3 : 1571050053 A Low-Latency and High-Accuracy Dual-Mode Neuron Design for Accelerating Neurological Diseases Simulation and Analysis	M-3-3.3 : 1571040775 Forest Canopy Cover Mapping in High-Resolution Multisource Satellite Imagery Using Attention Recurrent Residual U-Net	M-4-3.3 : 1571042812 Q-Learning and Double Q-Learning With Sliding Mode Control to Stabilize a Ball-And-Beam System	M-5-3.3 : 1571048546 Radio-Frequency GaN-On-Si HEMT Technology for Future Communication Applications	M-6-3.3 : 1571034636 Disfluency/Speech - Single-Speaker Conversational Speech Dataset With Paralinguage
1645 - 1700	M-1-3.4 : 1571033764 A Study of Disaster Notification Wireless Mesh Network Applying Plumtree	M-2-3.4 : 1571048634 Optimizing Convolutional Image Processing on RISC-V Using Branch Prediction on FPGA	M-3-3.4 : 1571057600 Diabetest: Mobile Application for T2DM Detection Among Filipino Young Adults Using Facial Texture	M-4-3.4 : 1571049125 LVIG-SAM: LIDAR-Vision-Inertial Odometry With Ground-Constraints via Smoothing and Mapping	M-5-3.4 : 1571049740 β -Ga2O3-On-SiC RF MOSFETs	M-6-3.4 : 1571033918 Accent Conversion in Text-To-Speech Using Multi-Level VAE and Adversarial Training
1700 - 1715	M-1-3.5 : 1571039941 Ray Propagation Channel Modeling Using Geographic Information Systems for Wireless Sensor Network Deployment	M-2-3.5 : 1571049750 Hardware Implementation of Multi-LFSR Pseudo Random Number Generator	M-3-3.5 : 1571057595 Public Vehicle Passenger Counting System Using Infrared Imaging With Data Analytics	M-4-3.5 : 1571039426 Learning Media Advancement Using Virtual Reality Technology for Heavy Equipment Safety in Indonesian Vocational Schools	M-5-3.5 : CMOS Compatible Visible Band Grating and Ultraviolet Avalanche Photodiode on Silicon Photonics Platform	M-6-3.5 : 1571033008 Adaptive Variational Mode Decomposition Based Parkinson Disease Detection With Entropy-Based Features
1715 - 1730	M-1-3.6 : 1571034562 Investigation of Environment Dependence in Wi-Fi CSI-Based Crowd Counting Systems	M-2-3.6 : 1571034137 Design and Implementation of Low-Current Sensing Precision Circuit for Functional Serial Bus Transmission Multi-Site IC Testing	M-3-3.6 : 1571034603 Similarity Based Characterization and Identification of Breast Ultrasound Lesions in Space-Frequency Subband	M-4-3.6 : 1571042073 Integrating Virtual Reality and AI Avatars for Sustainable Urban Development: Transforming Kanyakumari	M-5-3.6 : 1571050818 Characterization of Dynamic RON on GaN HEMTs	M-6-3.6 : 1571032424 Automatic Detection of Parkinson's Disease Using Continuous Wavelet Transform-Based Time-Frequency Domain Analysis of Speech Signals
					M-5-3.7 : 1571050208 Physics-Based GaN HEMT Device Modeling for MIMC	M-6-3.7 1571034123 Speech Emotion Recognition With DNN and Combination of CNN-LSTM
1730	End of Day 1					

Session	Interactive Forum Presentation - I
Date/Time	Monday, the 2nd December 2024 / 12.30-2.00pm
Venue	Orchid Main Ballroom Level 4
Poster ID	Paper ID/Title
M-P.01	1571057275: Centralizing Data Warehouse Platform for Mining Management Using AWS Computing Instance
M-P.02	1571058115: Social Relationship Development in the Metaverse: The Roles of Embodiment, Immersion, and the Moderating Effect of Copresence
M-P.03	1571051448: Smart Visitors Monitoring and Alert System Based on IoT
M-P.04	1571069500: Smart Docent System for Visually Impaired People With Mobile-Based Artificial Intelligence of Things
M-P.05	1571050452: A 13-Bit Resolution High Performance Time Domain Comparator Using Intermediate Buffer Based VCO
M-P.06	
M-P.07	1571041670: A Wireless Monitoring System to Quantify Indoor-Outdoor Air Pollution in a Building
M-P.08	1571041923: Adaptive Traffic Light Controller With Reinforcement Learning for Reducing Traffic Congestion
M-P.09	1571062964: Adaptive Traffic Signal Cycle Control for Green City Traffic Management
M-P.10	1571049144: An Electronic Agricultural Soil Quality Assessment Device
M-P.11	1571037892: Automated Control System for Rauvolfia Serpentina Growth Optimization
M-P.12	1571033451: Automation System of Organic Hydroponics With Vermicompost as Nutrients Source Using Forward Chaining Method
M-P.13	1571044335: CARE-PCR: A Portable OpenPCR Thermocycler
M-P.14	1571050168: Three-Terminal GaN-Based p-n Diode: From Device to Integrated Photonic Applications
M-P.15	1571034194: Community-Collaborative Solar Dryer Prototype: Development, Deployment, and Testing for Sustainable Food Preservation
M-P.16	1571049573: Compact Reformed Input and State Filter and Its Application to Decryption Circuit Design
M-P.17	1571033944: Control System Design for Simultaneous Stabilization of Multiple Internet-Connected Inverted Pendulums Considering Communication Delay
M-P.18	1571059257: Design and Simulation of Micro Strip Patch Hexagonal Koch Antenna With Defected Ground Structure for Ku and K Band Applications
M-P.19	1571055905: Detection and Tracking of Nile Tilapia Using DeepLabCut With ResNet50 and MobileNetV2
M-P.20	1571034633: Detection of Violators of Garbage Disposal Schedule With Monitoring System
M-P.21	1571034707: Development of a Vision-Based Smart Security System for Vehicle Entry Monitoring in a Subdivision
M-P.22	1571041768: Development of Game Based Virtual Environment for Post Stroke Rehabilitation Patients
M-P.23	1571034184: Discovering the Most Sustainable and Efficient WPT Method for EV Charging
M-P.24	1571057598: EchoEyes: Shopping Items Identification Assistant for People With Vision Impairment
M-P.25	1571034644: ECoSense: IoT-Driven Power Monitoring and Centralized Control System for Energy Conservation
M-P.26	1571041844: Effect of Check Meter Quantity on Theft Detection in Distribution Networks With Rooftop PV and Net Metering
M-P.27	1571034168: Battery SOH Estimation Using LSTM With Genetic Algorithm-Based Hyperparameter Optimization
M-P.28	1571057461: Flatness Based Robust Control of Planar Snake Robot for Linearly Parameterizable Uncertainties
M-P.29	1571049774: Immersive Reality in Industrial Training: A Case Study With Welding Robots
M-P.30	1571034238: Model Predictive Control-Based Adaptive Traffic Signaling Scheme for Philippine Urban Traffic
M-P.31	1571049156: Pedestrian Tracking Using YOLOv8 With Lucas-Kanade Optical Flow for Traffic Light Control Application
M-P.32	1571041924: Performance Evaluation of a 3D Printed Rainwater Energy Harvester for Household Application
M-P.33	1571034340: Person Re-Identification System by Selecting Appropriate Trained Model
M-P.34	1571034547: Real-Time Air Conditioning Unit Monitoring System With Analytics for Predictive Maintenance
M-P.35	1571041280: Mitigating NLOS Error in Urban and Suburban Environment Using Enhanced CSA-PSO Algorithm"
M-P.36	1571038951: Towards Regression Model Selection Framework for Stock Price Forecasting
M-P.37	1571050647 : Rotten Fruits and Vegetables Detection: A Deep Learning and Transfer Learning Based Approach
M-P.38	1571032485: Audio Fingerprinting using Clustering