

Time	Melati Main Ballroom, Level 4.
0700 - 1900	<b>Registration</b>
0815 start	<b>Opening Ceremony</b>
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 S K Sahoo, TPC Co-Chair
	<b>Keynotes</b>
0850-0925	<b>Speaker 1: Tom Coughling</b> 2024 IEEE President & CEO
0925 - 1000	<b>Speaker 2: Dr Bryan Low</b> Data-Centric AI in the Age of LLMs Director of AI Research, AI Singapore,  Deputy Director, NUS AI Institute
1000 - 1025	<b>Tea Break (Orchid Main Ballroom, Level 4)</b>
1025 - 1100	<b>Speaker 3: Dr Jonathan Pan</b> Collaborating Together for a Safer and Secure Future Chief, Disruptive Technologies Office,  Director, xCybersecurity, Enterprise Group, Home Team Science and Technology Agency (HTX), Singapore

Time	Melati Jr 4011	Melati Jr 4111	Orchid Jr 4211	Orchid Jr 4212	Orchid Jr 4311	Orchid Jr 4312
	<b>M-1-1 RF Circuits and Antennas</b>	<b>M-2-1 Electronics 1</b>	<b>M-3-1 Information 1</b>	<b>M-4-1 Emerging Topics 1</b>	<b>M-5-1 AI in Medical Applications</b>	<b>M-6-1 Special Session - Artificial Intelligence for Electric Drivetrain Design, Optimization and Control</b>
1100 - 1115	M-1-1.1 : 1571049362 V-Band Power Amplifier MMIC Cell Implemented in GaAs	M-2-1.1 : 1571058133 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 : 1571050764 Online Coverage Path Planning in LIDAR Perception Constrained Environments	M-5-1.4 : 1571044472 A New Framework for Accurate Emotions Recognition of Human Speeches	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 : 1571033872 Robust Fetal Head Circumference Calculation on Ultrasound Images Using Just-In-Time Completed Ellipse Fitting	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 : 1571050260 Mental Health Evaluation Through Text Analysis	M-6-1.6 : 1571044210 A Novel Architecture for Predictive Maintenance and Realtime Monitoring of Electric Vehicle

**Lunch, Exhibition & Interactive Forum (Orchid Main Ballroom, Level 4)**

Time	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 AlGaIn/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 Attractive 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 μA Quiescent All-MOS Subthreshold Design Technique of Voltage Reference for Biomedical and IoT Device Applications	M-3-2.2 : 1571049737 VULDelect: 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 : 1571033484 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 : 1571032485 Audio Fingerprinting Using Clustering
1445 - 1500	M-1-2.4 : 1571042650 Optimization of Virtual Cooperative Spectrum Sensing in UAV-Aided Cognitive Radio Networks	M-2-2.4 : 1571055894 WSe2: ZnO Nanocomposite Based UV Photodetector With PMMA (HTL) and PCBMI (ETL)	M-3-2.4 : 1571034639 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 : 1571050801 Analysis of Features for Dysarthria Severity Classification From Speech
1500 - 1515	M-1-2.5 : 1571031164 High Performance Flow Table for 5G Core Networks Based on FPGA	M-2-2.5 : 1571041886 A 2μA 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 : 1571046020 Multi-Label Emotion Share Regression From Speech Using Pre-Trained Self-Supervised Learning Models
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 TFFT	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	M-6-2.6 : 1571033996 Accented Text-To-Speech Synthesis With a Conditional Variational Autoencoder

**Tea Break (Orchid Main Ballroom, level 4)**

Time	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 : 1571050414 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 DisfluencySpeech - 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-Constrains 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 : 1571057955 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 : 1571034552 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 Broad 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 : 1571050168 Three-Terminal GaN-Based p-n Diode: From Device to Integrated Photonic Applications	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	

Session	Interactive Forum Presentation - I
Date/Time	Monday, the 2nd December 2024 / 12.30-2.00pm
Venue	Orchard Main Ball Room 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	1571032414: A Source-Drain Engineering Di-Electrically Modulated Double Gate TFET Based Label-Free Biosensor
M-P.07	1571033723: A Study of Generating Exhaustive Cycles in Wireless Mesh Networks for Disaster Notification
M-P.08	1571041670: A Wireless Monitoring System to Quantify Indoor-Outdoor Air Pollution in a Building
M-P.09	1571041923: Adaptive Traffic Light Controller With Reinforcement Learning for Reducing Traffic Congestion
M-P.10	1571062964: Adaptive Traffic Signal Cycle Control for Green City Traffic Management
M-P.11	1571049144: An Electronic Agricultural Soil Quality Assessment Device
M-P.12	1571037892: Automated Control System for Rauwolfia Serpentina Growth Optimization
M-P.13	1571033451: Automation System of Organic Hydroponics With Vermicompost as Nutrients Source Using Forward Chaining Method
M-P.14	1571044335: CARE-PCR: A Portable OpenPCR Thermocycler
M-P.15	1571050818: Characterization of Dynamic RON on GaN HEMTs
M-P.16	1571034194: Community-Collaborative Solar Dryer Prototype: Development, Deployment, and Testing for Sustainable Food Preservation
M-P.17	1571049573: Compact Reformed Input and State Filter and Its Application to Decryption Circuit Design
M-P.18	1571033944: Control System Design for Simultaneous Stabilization of Multiple Internet-Connected Inverted Pendulums Considering Communication Delay
M-P.19	1571059257: Design and Simulation of Micro Strip Patch Hexagonal Koch Antenna With Defected Ground Structure for Ku and K Band Applications
M-P.20	1571055905: Detection and Tracking of Nile Tilapia Using DeepLabCut With ResNet50 and MobileNetV2
M-P.21	1571034633: Detection of Violators of Garbage Disposal Schedule With Monitoring System
M-P.22	1571034707: Development of a Vision-Based Smart Security System for Vehicle Entry Monitoring in a Subdivision
M-P.23	1571041768: Development of Game Based Virtual Environment for Post Stroke Rehabilitation Patients
M-P.24	1571034184: Discovering the Most Sustainable and Efficient WPT Method for EV Charging
M-P.25	1571057598: EchoEyes: Shopping Items Identification Assistant for People With Vision Impairment
M-P.26	1571034644: ECoSense: IoT-Driven Power Monitoring and Centralized Control System for Energy Conservation
M-P.27	1571041844: Effect of Check Meter Quantity on Theft Detection in Distribution Networks With Rooftop PV and Net Metering
M-P.28	1571035713: Efficient FPGA Architecture for DPDK Flow Rules Processing
M-P.29	1571034168: Battery SOH Estimation Using LSTM With Genetic Algorithm-Based Hyperparameter Optimization
M-P.30	1571057461: Flatness Based Robust Control of Planar Snake Robot for Linearly Parameterizable Uncertainties
M-P.31	1571049774: Immersive Reality in Industrial Training: A Case Study With Welding Robots
M-P.32	1571034238: Model Predictive Control-Based Adaptive Traffic Signaling Scheme for Philippine Urban Traffic
M-P.33	1571049156: Pedestrian Tracking Using YOLOv8 With Lucas-Kanade Optical Flow for Traffic Light Control Application
M-P.34	1571041924: Performance Evaluation of a 3D Printed Rainwater Energy Harvester for Household Application
M-P.35	1571034340: Person Re-Identification System by Selecting Appropriate Trained Model
M-P.36	1571034547: Real-Time Air Conditioning Unit Monitoring System With Analytics for Predictive Maintenance
M-P.37	1571041280: Mitigating NLOS Error in Urban and Suburban Environment Using Enhanced CSA-PSO Algorithm"
M-P.38	1571038951: Towards Regression Model Selection Framework for Stock Price Forecasting
M-P.39	1571050647 : Rotten Fruits and Vegetables Detection: A Deep Learning and Transfer Learning Based Approach