## **Poster Paper List**

Poster Presentation 1 (Session A+E) 10:30~12:00, October 19 (Thursday) (E-13 Lobby) Session A + E

**Poster No.** Paper No. Title A-P-001 1-1-004 Research on Foldable Photochromic Eyeglass Frames Prediction and Analysis of Corner Cutting by Intelligent A-P-002 1-1-006 Wire Electrical Discharge Machining Alignment System Combining Vision and Collaborative A-P-003 1-1-009 Mechanism Heat dissipation analysis and research on off-grid solar A-P-004 1-2-001 container houses Dual-Mode Stress and Strain Testing Platform for A-P-005 1-3-004 Tension and Bending Development of an intellingent Arm Rehabilitation A-P-006 1-3-006 Equipment A new developed micro PECM machine to achieve A-P-007 1-3-012 vertical axis nanopositioning control capability Enhancing Monocrystalline Silicon Photovoltaic Module Quality Control with a Hybrid Deep Learning A-P-008 1-4-002 and Automated Optical Inspection System Research on Control Strategy for Active Front Wheel A-P-009 1-4-003 Steering Assistance in Vehicles The Design and Evaluation of PEM Fuel Cell for 1-4-005 A-P-010 Mosquito Trap Optimizing Sputtering and Laser Annealing Parameters Enhance the Optoelectronic Performance A-P-011 1-5-002 of to ITO/Ag/ITO Multilayer Electrodes Preparation of La(OH)3/RGO nanocomposites and its A-P-012 1-5-003 antibacterial application Preparation of CeO2/RGO/PEO nanofibers by A-P-013 1-5-004 electrospinning and their antibacterial activity Influences of Nano-Dispersoids on Properties of W-1-5-005 A-P-014 Containing Refractory High Entropy Alloys Exploration of the Structure, Optical Transmittance, Electrical Properties, and Wear Resistance of Titanium A-P-015 1-5-006 Nitride Thin Films by sputtering Synthesis and Characterization of Gold Nanoparticles A-P-016 1-5-007 for Strain Measurement in Biomedical Applications

		Nanostructural Tin Sulfide Coating Grown on Carbon
A-P-017	1-5-009	Cloth by Electrochemical Deposition at Different Bath Temperatures
A-P-018	1-5-011	The impact of laser annealing on IZO thin films
A-P-019	1-5-012	SYNTHESISANDCHARACTERIZATIONOFCARBONIZEDNANOMATERIALSBASEDONMETAL-ORGANIC FRAMEWORKMIL-100(Co,Fe)
A-P-020	1-5-014	Study on Microstructures Formed by Hydrothermal Method at Different Reaction Times
A-P-021	5-9-001	Experimental and theoretical analysis of the actuation voltages of aqueous solutions on the single plate device
A-P-022	5-9-002	Parameter investigation on the minimum actuation voltage of electrowetting-on-dielectric on the coplanar microfluidic device
A-P-023	6-1-001	Applying Negative Ions and Air Curtain to Reduce Suspended Particles Caused by Dental Grinding Handpieces
A-P-024	6-1-002	Evaluation and comparison of the effectiveness of preliminary design ideas - taking a dust reduction device added-on a dental grinding handpiece as an example
A-P-025		Investigation of Micro Polishing on Complex Finishing Surfaces
A-P-026		A Motor Health Detector for Electric Vehicles
A-P-027		The development of an automatic investigation system based on machine vision and robotic arm
A-P-028		Biomechanical Analysis of Screw Configurations for Percutaneous Screw Fixation of Calcaneal Fractures
A-P-029		Highly sensitive AC magnetic characterization system for magnetic nanoparticles
E-P-001	5-3-002	A pilot study on sense of purpose and learning involvement for Mechanical Engineering students

### Poster Presentation 2 (Session B) 13:30~14:30, October 19 (Thursday) (E-13 Lobby) Session B

Poster No.	Paper No.	Title
B-P-001		Using Machine Learning to Predict Student Semester
B1 001		Performance System
B-P-002		Use Computer Vision to Teach Children About
		Numbers
B-P-003		A New Look on Parameter Estimation by using the
		Noise-subspace Projection

B-P-004		A Study on the User Terminal Device Cybersecurity for 5G Networks
B-P-005		Outcome-Based Education Case - Using the Design of an Intelligent Traffic Signal System as an Illustration
B-P-006	2-5-004	Competitive Genetic Algorithm for Large-scale Biologicl System Identification
B-P-007	2-5-005	Genetic Operations Enhancement for Biological Data Regression
B-P-008	2-7-002	Development of an Adaptive Intelligent Traffic Light Control System Through Traffic Flow Monitoring
B-P-009	2-7-003	A Smart Parking Management System with Integrates IoT Devices and Chatbot
B-P-010	2-7-004	The Taiwan Marine Environment Monitoring Service (TwMEMS)
B-P-011	2-7-005	An Implementation of the 3D Indoor Scene Reconstruction for Point Cloud Data Using Open3D Library
B-P-012		The Improvement Effects for Infrared Temperature Sensor Measured Outdoors Using an Analog Sensor Module
B-P-013		MSM Ga <sub>2</sub> O <sub>3</sub> Deep Ultraviolet Photodetectors on Sapphire Substrates with Different Annealing Temperatures by RF Sputtering
B-P-014		A Case Study of Portable Theremin Electronic Sound Generator
B-P-015		Telephony and VoIP Interconnection Systems
B-P-016		Wi-Fi 7 5GHz/6GHz Band 2 x 1 Printed Fractal Patch Array with a Band-stop FSS
B-P-017		Development and Application of Small Theremin Electroacoustic Models in Interdisciplinary Practical Courses
B-P-018		A study of Grown BiSrCaCuO thin films on silicon substrate
B-P-019		The Piezoelectric, Dielectric, and Vibration Properties for the Lead-Free Piezoelectrics/Polymer Composite Sheets
B-P-020		The preliminary study on a system using AIOT technology to cultivate algae in household wastewater
B-P-021		PTAT Circuit Design for Reference Temperature in Thermopile Sensors
B-P-022	2-2-004	Precision Distance Measurement Embedded Technology and Implementation for Microwave Energy Transmission Systems
B-P-024	2-3-001	Annealing Tempertaure Effect on the micro-structure of SrBi <sub>4</sub> Ti <sub>4</sub> O <sub>15</sub> thin film RRAM devices by sol-gel method
B-P-025	2-3-002	Annealing Effect on Electrical Properties of SiC Thin films RRAM Devices Prepared by RF Magnetron Sputtering Method

B-P-026	2-3-003	Biomass wastes derived hierarchical porous carbons used for high-performance supercapacitors
B-P-027	2-4-001	Smart Water Meter Monitoring Systems

#### Poster Presentation 3 (Session C) 14:30~16:00, October 19 (Thursday) (E-13 Lobby) Session C

**Poster No.** Paper No. Title Preparation and Characterisation of SiC Thin Film C-P-001 Deposited Using RF Sputtering Fabrication of Low-Nickel Tin Films via E-beam C-P-002 Evaporation The Study of Cs<sub>0.33</sub>WO<sub>3</sub> Film Characteristics at C-P-003 Different Annealing Temperatures Study of Carbon-Based Materials for Solar Steam C-P-004 Generation Vision Simulation of Human Eye with Various Amounts C-P-005 of Accommodation Simulation Study of a 250-GHz Medium-power C-P-006 Gyrotron Traveling-wave Optimization of Optical Design for an Infrared C-P-007 Thermometer Based on Light Ray Grouping Methodology Simulation and Experiment Study for a 2.45-GHz 5-2-001 C-P-008 Microwave Heating Cavity System PIC Simulation Study for a 35-GHz gyrotron Traveling-C-P-009 5-5-002 Wave Amplifier Experiment Photodetectors Fabricated on Si Substrates with C-P-010 3-6-004 Enhanced Ultra-violet Photoresponse C-P-011 A Study of Optical Response of BiSrCaCuO Thin Films 3-6-002 Birefringent Polymer Sensor for UV Glue Curing C-P-012 3-6-006 Monitoring Anti-Resonance Fiber Fabry-Perot Interferometer Based C-P-013 3-6-005 on Reflecting Guidance Liquid Core Fiber A Liquid-Core Fiber Mach-Zehnder Interferometer with C-P-014 3-6-003 Dual-opening Channel by a Side-Polished Hollow Core Fiber Light Pressure Measurement based on a Dynamic C-P-015 3-6-001 Micro-Air Bubble in a Hollow Core Fiber Compact Wavelength Demultiplexers Based on a 3-6-008 C-P-016 Rectangular Nanoring Resonator Temperature Characteristics of Indium Tin Oxide Thin C-P-017 3-5-007 Film Gas Sensors Prepared by RF Sputtering Microwave Hydrothermal Synthesis Preparation of MnFe<sub>2</sub>O<sub>4</sub>/rGO Nanocomposite and its Application in C-P-018 3-5-003 supercapacitor Electrodes

		Implementation of Integrated Photocapacitors for
C-P-019	3-5-006	Energy-Conversion/Storage and Optical-Sensing
C-F-019	3-3-000	Applications
		**
C D 000	2.5.002	Heating Properties and Metallic Properties of
C-P-020	3-5-002	Aluminum-Chromium Composite Metal Micro Heaters
		under Extension and Bending
C-P-021	3-1-001	Transmission Mechanism Overview of Wireless Power Transfer
	0 1 001	Systems
C-P-022	3-1-002	AI-based Regression Curve Training for Maximum Power Point
		Estimation and Tracking in Solar Power Generation Systems Construction of a Solar Power Generation System for Maximum
C-P-023	3-1-003	Power Estimation and Tracking Using Python Optimization
01 025	5 1 005	Algorithms
C D 024	2 1 004	Research and Development on Maximizing the Mileage of Electric
C-P-024	3-1-004	Vehicles Supplemented by Operating Energy Feedback
C-P-025	3-1-005	Research on Current Sharing Control of Multi-phase interleaved
C-F-023	3-1-003	LLC Converters
C-P-026	3-1-006	Design a Series-Parallel LLC Converter Considering Current
0-1-020	5-1-000	Sharing Characteristics
C-P-027		A Compact Coil Coupler for a Wireless Power Transfer High-
		Power Long-Distance Transmission Application
C-P-028		Transformer Capacity Analysis of Mass Rapid Transit Main Substations
		Substations Simulated a Novel Structure of ZVS and ZCS Buck Converter with
C-P-029		Coupled Inductor
C-P-030	3-2-001	Wi-Fi-based indoor positioning of automatic pitching machine
		Application of Highly Stable Infrared Sensing Device in Electric
C-P-031	3-2-002	Vehicle System
		Application of an All-Digital Compensation Control Method for
C-P-032	3-2-003	Enhanced Wireless Power Transmission and Power Conversion
C-P-033	2.2.006	Application of Intelligent Process Automation Control Technology
C-P-033	3-2-006	in Warehouse Management for Manufacturing Plants
C-P-034	3-2-008	Combining the INSTANT-NGP Algorithm with Autonomous
0-1-034	5-2-008	Drones
C D 025		Development of a Smart Decision-Making Platform for Interactive
C-P-035		Power Transmission Regulation Systems in Electric-Assist Bicycle
	+	Sharing Systems   Silicon Carbide Photodetectors Fabricated on Si Substrates for
C-P-036		High-Temperature Applications
	1	Study on Doping Ag into Fe2O3 Thin Films Using a
C-P-037		Radiofrequency Co-Sputtering System for Application in Resistive
		Switching Random Access Memory
C-P-038	3-3-001	Tai Chi System: Motion Assessment and Feedback with Cameras
U-r-038	3-3-001	and Smart Glasses
C-P-039	3-3-002	Design of Physical Fitness Games at Home Using Posture
01000	5 5 002	Detecting Technology
C-P-040	3-3-004	Proposed Physiological Pathway Assessor of Vascular Disease
		Phenotype: A Preliminary Prototype Study on Handgrip Strength
C-P-041		EMG of Masticatory Muscle at Different Posture
C-P-042		Evaluation of electrocardiogram disease classification model based
		on CSP combined with Transform
C-P-043	-	Convolutional Transformer for Brain-Computer Interface
C-P-044		Design of a Serious Game for Cognitive Function Assessment
	+	Evaluation Using Verbal CommunicationA Pilot Study on Investigating the Feasibility of Muscle
C-P-045		Performance Using Electromyography and Body Composition
L		1 renormance Using Electromyography and Body Composition

		Analysis
C-P-046	3-4-001	Reduced Graphene Oxide/Nickel Composites as a Buffer Layer on PEDOT:PSS Hole Transport Layer for Perovskite Solar Cells
C-P-047	3-4-002	A Study on Doping Different Ratios of Bathocuproine in the PCBM Electron Transport Layer of Perovskite Solar Cells
C-P-048	3-4-003	Research on the Application of Iron Oxide and Graphene Composite Materials in the Counter Electrode of Dye-Sensitized Solar Cells
C-P-049	3-4-004	Investigation of Zinc Complex/Graphene Oxide Nanocomposite Materials for Counter Electrodes in Dye-Sensitized Solar Cells
C-P-050	3-4-005	A Study on the Incorporation of Tin Dioxide Nanoparticles into the Titanium Dioxide Working Electrode of Dye-Sensitized Solar Cells
C-P-051	3-4-007	Efficient all-vanadium redox flow battery based on graphite felt electrodes with a nanoporous surface
C-P-052	3-4-008	Effect of Rayon-based Carbon Felt Electrode Compression on Properties of Vanadium Redox Flow Batteries
C-P-053		Morphology-tunable synthesis of MnO2/NF Composite Electrode and its Electrochemical Performance for Supercapacitors
C-P-054	3-4-010	Carbon felt modified with SnO2 coating by successive ionic layer adsorption and reaction method as electrodes for vanadium redox flow batteries

## Poster Presentation 4 (Session D)

# 16:30~18:00, October 19 (Thursday) (E-13 Lobby)

Session D

Poster No.	Paper No.	Title
D-P-002	4-1-004	EPS Biofilm for Corrosion Resistance in Steel Plates
D-1-002	4-1-004	Research on the preparation of acrylic monomers and
D-P-003	4-1-005	polymers using cycloaddition reaction of carbon
	11000	dioxide and glycidyl methacrylate
		Synthesized of Metal-Organic Frameworks (MOFs)-
D-P-004	4-2-001	MIL-100(Fe) and Applied on Alkanes Separation
		Process
D-P-005	4-2-002	Structural characterization and antibacterial properties
D-F-003	4-2-002	of CuFe <sub>2</sub> O <sub>4</sub> -rGO nanocomposites
		Revealing the Mechanism of Transition Metal Oxides
D-P-006	4-2-003	as Peroxidase Mimetics: Implications for Nanozyme
		Design and Catalase-Like Functionality
		Preparation and antibacterial activity of nickel-iron
D-P-007	4-2-004	oxide/graphene nanocomposites against Escherichia
		Synthesis and Application of a Pebax/Ionic Liquid/Graphene Oxide Composite Membrane Coating
D-P-008	4-2-005	on PSF Hollow Fiber for Enhanced CO <sub>2</sub> /CH <sub>4</sub>
		Separation
		Synthesis and Optical Properties of Eu <sup>2+</sup> -doped
D-P-009	4-2-007	Silicocarnotite Nanoparticles by Pulsed Laser Ablation
21000		in Water
		Synthesis and Photoelectrochemical Properties of
D-P-010	4-2-008	Rocksalt-type TiOx Thin Film by Pulsed Laser
		Deposition
D-P-011	4-2-010	Study on the growth of SiC nanowire networks on

		amorphous silicon dioxide substrate by carbothermal
		reduction from agricultural waste rice straws
		Synthesis and Luminescence Properties of
D-P-012	4-2-011	Ca <sub>5</sub> (PO <sub>4</sub> )SiO <sub>2</sub> :Gd <sup>3+</sup> Phosphors by Solid State Sintering
		Enhancing Surface Morphology using Methoxylated
D-P-013	4-2-013	Functionalized Triarylamine-Based Hole-Transporting
2 1 010		Polymers for Stable Perovskite Solar Cells
D-P-015	4-3-002	A Numerical Study on Resin Infusion in VARTM
	4.2.002	Ultra-High Molecular Weight Polyethylene
D-P-016	4-3-003	(UHMWPE) Swelling Effect and Investigation
D-P-017	4-3-004	An Innovative Catalyst Preparation of Layered Double
D-F-01/	4-3-004	Hydroxide Compounds with Bactericidal Applications
D-P-018	4-3-005	The Study on New Type Polybenzimidazole Co-
D-1-018	4-3-003	polymer Membranes
D-P-019	4-3-006	Evaluation of biodegradable polyvinyl alcohol
D-1-017		hydrogels as soft contact lens materials
D-P-020	4-3-007	HDPE/PET material side by side composite fiber
D-1-020	H-3-007	technology and development
D-P-021	4-3-008	Synthesis of Polyaniline/Cellulose Paper and
D-1-021	H-3-008	Application for a Humidity Sensor
		Synthesis of Sulfobetaine Siloxane Oligomers via Sol-
D-P-022	4-3-009	Gel Method and Formation of Transparent Films with
D 1 022	+ 5 007	Anti-biofouling, Antibacterial, and High Hardness
		Properties through Moisture Curing
		Composite Nanostructures of Fluorescent Carbon
D-P-023	4-3-010	Quantum Dots on Thermoshrink Film for High
		Sensitivity Sensing and Signal Enhancement
D-P-024		Preparation of Low-Carbon-Footprint Monomer from
		CO <sub>2</sub> and Acrylate
		Dimensionality Reduction and Clustering Analysis of
D-P-025		Infrared Spectra Using Uniform Manifold
		Approximation and Projection (UMAP)
D-P-026		Low-temperature solid oxide fuel cells
		with LNCA-SDC composite electrolyte
D-P-027		Preparation and properties of graphite nanosheet/
		recyclable resin composite
D-P-028		Research on the Application of Conductive Fabrics in
		Humidity Sensing   The Constituents from the Peels of Fruit of Citrus
D-P-029		
		kotokan Hayata
		The ethanol extract of rice bran suppresses the mast
D-P-030		cells-mediated hypersensitivity type I reaction
		through the inhibition of PLC $\gamma$ /IP3R/PKC $\mu$
		signaling pathway
D-P-031		Studies on Tissue Culture of Aeonium aureum
	4 4 6 6 1	Development of Recombinant Enzyme Purification and
D-P-032	4-4-001	Recovery System Utilizing Chitin as the
	4 6 6 6 1	Immobilization Matrix
D-P-033	4-6-001	Antibacterial Capability of SA/CA-Ag Biomimetic

		Skin Membrane Patch	
D-P-034	4-6-002	Development of a High Throughput Microfluidic	
D-1-034	<b>H</b> -0-002	Separator for Eliminating Large Microparticles	
		An Integrated Perm-Selective Membranes Utilizing	
D-P-035	4-6-004	Electrochemical and Optical Detection for Rapid	
		Nucleic Acid Diagnosis	
D-P-036		Study on the development of biodegradable film	
	4-7-001	consist of carrageenan and gelatin incorporating with	
		the extracts from Premna microphylla Turcz leaf	
D-P-037	4-2-012	Synthesis and Characteristion of Sodium Doped	
	4-2-012	Fe1.1Mn1.9O4 Nanoparticulars	
D-P-038	4 2 011	Analysis of characteristics of anodized film prepared	
	4-3-011	on 6061 aluminum alloy using alkaline solution	