

Student Paper Awards (Oral)

S1. Nanophotonic Materials and Devices

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0101-O002	100324-001	Surag Athippillil Suresh	Meta-microlens-array based confocal fluorescence microscopy
2024-WED-S0101-O004	100095-001	Yu-Chuan Chang	Directionally Asymmetric Janus Metasurface Hologram
2024-WED-S0102-O003	100699-001	Chia-Hung Wu	Unveiling the Identity of Single Photon Emitters in hBN with Nano-FTIR
2024-WED-S0102-O004	100795-001	Thanh-Thu Le-Vu	Enhancing Photon Avalanche Upconversion Luminescence Performance in Tm_{3+} Ions Doped $NaYF_4$ Upconversion Nanoparticles
2024-THU-S0103-O002	100642-001	Hsin-hui Huang	CoCrFeNiMo _{0.5} High Entropy Alloy Under Shock Compression
2024-THU-S0104-O002	100063-001	Yu Chen Ho	High-Performance Near-Infrared Surface Emitting Lasers Utilizing Plasmonic Surface Lattice Resonance
2024-THU-S0104-O003	100072-001	Yu-Han Huang	Wafer-scale and Layer Number Controllable Molybdenum Disulfide Films for Light Sensing Devices
2024-THU-S0105-O002	100386-001	Gow-Zin Yiu	Physical Unclonable Function Constructed with a Silicon Photonic Actively-tuned Waveguide Array

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S1. Nanophotonic Materials and Devices

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0101-O005	100484-001	Chih-Yao Hsu	High-Q Metasurface with 2D Topology Optimization for Color Selection
2024-WED-S0101-O008	100201-001	Yu-Tzu Liu	Topology Optimization Enables Freeform Matrix Fourier Optics
2024-WED-S0101-O009	100679-001	K M Arun Kumar	Synergistic SERS Enhancement of α -Fe ₂ O ₃ Snowflakes and Ag Nanospheres for Ultra-Sensitive Antibiotic Detection
2024-WED-S0102-O005	100434-001	Kuan-Heng Chen	High-Efficiency Aluminum Nitride Metalens in the Deep Ultraviolet
2024-WED-S0102-O006	100235-001	Wen Hsin Chang	Metastructured snowflakes for all-day radiative cooling
2024-WED-S0102-O010	100821-001	Cheng-Feng Pan	Designer Scalable Color Router for High-Efficiency Image Sensor
2024-THU-S0103-O007	100624-001	Hung-I Hsiao	Reducing the Schottky Barrier and photocurrent improvement in monolayers WS ₂ via PET Transfer
2024-THU-S0103-O008	100721-001	Tzu Yu Peng	Gate-Tunable Plexciton Emission in Monolayer MoS ₂ Coupled with Nitride-Based Plasmonic Heterostructures

Student Paper Awards (Poster)

S1. Nanophotonic Materials and Devices

Paper No.	Manuscript ID	Presenter	Title
2024-WED-P0101-P011	100577-001	Hsi-Wen Huang	Slotted Photonic Crystal Nanolaser with 20 nm Slot Width Assembled via Transfer Printing
2024-WED-P0101-P014	100738-001	Ze-Chien Liu	Whispering Gallery Mode Lasing from Single Suspended Dye-Doped Polymer fiber
2024-WED-P0101-P017	100558-001	Zih Fan Chen	Simulation of the HOE-based AR Display System by Deep Learning-based Convolutional Neural Network
2024-WED-P0101-P026	100384-001	Po-Jen Yu	Comparison of Thermo-optic Effect of 3D Printable Composites with Conductive and Semi-conductive Particles in Terahertz Spectrum
2024-WED-P0101-P028	100679-004	Yun-Yun Tsai	Synthesis of g-C ₃ N ₄ /TiO _{2-x} /Ag Heterostructure Using Photoreduction on Ferroelectric Templates for High-Sensitivity Antibiotic SERS Detection
2024-WED-P0101-P030	100330-001	Yi-Fang Ting	Solvent-Mediated Crystallization and Energy Transfer Dynamics in Quasi-2D Perovskite Thin Films for Enhanced Random Lasing
2024-WED-P0101-P034	100944-001	Chieh-Chun Chang	Arrays of Split-Ring Resonator embedded in a Free-Standing Gold Membrane for Surface-Enhanced Infrared Absorption Biosensing Platform
2024-WED-P0101-P042	100418-001	Jia-Hua Lee	Ultrathin Immersion Huygens' Meta-Devices in the Visible

Student Paper Awards (Oral)

S2. Optical Waveguides and Communications

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0201-0002	100610-001	Yung-Jie Chen	Air-to-Water Rolling Shutter Based Optical Camera Communication Using CUDA Deep-Neural-Network Long-Short-Term-Memory (CuDNNLSTM)
2024-WED-S0201-0004	100303-002	Chun Han Chen	Quantum Noise with Volterra Equalizer-Aided OFDM system to Address Privacy Issues in THz communication
2024-WED-S0202-0004	100586-001	Rih-You Chen	100GHz and 100Gb/s Silicon Photonics Micro-ring Modulator using high nonlinearly effect
2024-THU-S0204-0001	100365-001	Thuy Trinh	MEMS-Actuated Movable Optical Probes to Pre-calibrate Phase Errors in a Programmable Photonic Integrated Circuits

Student Paper Awards (Poster)

S2. Optical Waveguides and Communications

Paper No.	Manuscript ID	Presenter	Title
2024-WED-P0201-P007	100024-001	Yu-Yao Bai	5G NR Fiber-Wireless Convergent Systems through Injection Locking Multiple Optical Carriers into DMLs
2024-WED-P0201-P014	100870-001	Meng-Hsuan Tsai	Reducing interface reflection in silicon photonics fiber optic gyroscopes
2024-WED-P0201-P015	100098-001	Yi-An Chen	Uniform and Nonuniform Grating Coupler Designs Based on Silicon-on-Insulator
2024-WED-P0201-P019	100643-001	Yu-Ren Li	Coherent OFC generation using optically injected semiconductor lasers with optoelectronic feedback

Student Paper Awards (Oral)

S3. Quantum Photonics and Laser Technology

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0301-O001	100674-001	Po-Han Chen	Field test of long-distance frequency-comb entanglement distribution via optical fiber
2024-WED-S0301-O002	100731-001	Hsu-Ting Tang	Frequency-spacing-tunable OFC generation using cascaded injection of semiconductor lasers
2024-WED-S0301-O004	100061-001	Ta Kuan Liu	Topological Edge States and Quantized Landau Levels Created by Continuous Strain in Photonic Crystal
2024-WED-S0302-O003	100773-001	Te-Hua Liu	Uncooled High-Power 1.31- μm DFB Laser for High-Efficiency Co-Packaged Optics Applications
2024-FRI-S0306-O001	100227-001	Yen-Yu Wang	Room-Temperature, Tunable Lasing from Quasi-2D Perovskites Integrated with Plasmonic Lattices



PTIC 2024

Optics & Photonics Taiwan International Conference
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Student Paper Awards (Poster)

S3. Quantum Photonics and Laser Technology

Paper No.	Manuscript ID	Presenter	Title
2024-WED-P0301-P002	100603-001	Po-Han Wang	Characterization of thermal degraded optical cat states by non-Gaussianity
2024-WED-P0301-P006	100402-001	Ting-Yu Wu	Measurements of Relative Intensity Noise in VCSELs and Its Correlation with Intrinsic Response Characteristics
2024-WED-P0301-P009	100601-001	Hua Li Chen	Entanglement from two squeezed states

Student Paper Awards (Oral)

S4. Information Photonics

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0401-O004	100538-001	Chau Nguyen Hong Minh	Properties of nematic liquid crystal-based geometric phase grating and lenses devices
2024-WED-S0402-O001	100609-001	Chien-Hua Peng	High-speed, long-range SS-OCT imaging based on HCG-VCSEL and real-time calibration framework
2024-WED-S0402-O002	100748-001	Yu Che Lu	Continuously Variable Time Series Signal in Holographic Data Storage System
2024-WED-S0402-O003	100782-001	Chi Sun	Ghost Image Elimination and Crosstalk Analyses in a Volume Holographic Optical Elements-based Augmented Reality Glasses

Student Paper Awards (Poster)

S4. Information Photonics

Paper No.	Manuscript ID	Presenter	Title
2024-THU-P0402-P001	100283-001	Chen-Hsiang Huang	Sectional Reconstruction of Optical Scanning Holographic Microscope by Using Random-Phase Encoding
2024-THU-P0402-P016	100764-002	Ya-Hsuan Lee	Development of Non-Iterative Computer Holography Algorithms for Head-Mounted AR Displays
2024-THU-P0402-P018	100816-001	Shou-Feng Chang	Terahertz Reflective Ptychography Using Divergent Illumination with a Beam Splitter



PTIC 2024

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Student Paper Awards (Oral)

S5. Optical Design and Engineering

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0501-O001	100183-001	Han-Yu Liang	A Hybrid Optical-Digital Neural Network for Terahertz Computational Imaging
2024-WED-S0501-O002	100502-001	Cheng-Yu Lee	Active Optical Dispersion Compensation for Temporal Focusing Microscopy
2024-WED-S0501-O003	100621-001	Kavya Nair Jayakumaran	Decuple Boost in Outcoupling Efficiency of Amber-light Emitting Perovskite Quantum Dots
2024-WED-S0501-O005	100488-001	Yi-Xuan Liu	Continuously electro-tunable Linear Polarization Rotator
2024-WED-S0502-O001	100747-001	Yin-Cheng Huang	Optimal Light Sources for VHOE-based Mixed Reality System
2024-WED-S0502-O002	100630-005	Ya-Hsuan Lin	Low-Temperature Processing of Shortwave Infrared Narrow-Bandpass Filters
2024-WED-S0502-O004	100925-002	Yu-Siang Hu	Fabrication of Ambient Temperature Fiber-Optic Sensor Based on Lossy Mode Resonance

Student Paper Awards (Poster)

S5. Optical Design and Engineering

Paper No.	Manuscript ID	Presenter	Title
2024-THU-P0502-P003	100703-001	Wei-Cheng Cheng	Light Scattering and Orientation Fluctuation in Liquid Crystal Lens
2024-THU-P0502-P006	100249-001	Wei-Hao Liao	The 40-degree full-view freeform projection lens design is applied to AR glasses displays
2024-THU-P0502-P007	100333-001	Hsuan-Yu Hsia	Snapshot Hyperspectral Imaging System Based on Fiber Array
2024-THU-P0502-P011	100388-001	Po-Kai Liang	Foucault Knife-Edge Test for Surface Inspection of Uncoated Aspheric Mirrors
2024-THU-P0502-P015	100122-001	Fu-Jung Hu	Optimizing the Aspect Ratio of Dihedral Corner Reflector Array Columns to Reduce Ghosting
2024-THU-P0502-P018	100735-001	Yu-Wei Haung	Utilizing the Aperture Effect to Improve the Specific Spatial Frequency Response of Optical Imaging
2024-THU-P0502-P023	100504-001	Chen Chin Chen	Three Step Deformable Mirror Identification for Zernike Mode Generation
2024-THU-P0502-P025	100659-001	Chih-Cheng Lai	Tunable focusing in large-aperture liquid crystal lenses with multi-zone and 3D electrode structures



PTIC 2024

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Student Paper Awards (Oral)

S6. Biophotonics and Biomedical Imaging

Paper No.	Manuscript ID	Presenter	Title
2024-THU-S0603-O001	100273-001	Ya-Hui Lin	Revealing intact neuronal circuitry in centimeter-sized formalin-fixed paraffin-embedded brain
2024-THU-S0604-O001	100408-001	Chung-En Huang	Miniaturized two-photon fiber endoscopy for mice deep-brain functional imaging
2024-THU-S0604-O004	100144-001	Cheng Yu	Radial-balanced Phase Transfer Function in Quantitative Differential Phase Contrast Microscopy
2024-THU-S0605-O003	100224-001	Yin-Shen Cheng	Real-time monitoring of laser thermal therapy with dynamic optical coherence tomography

Student Paper Awards (Poster)

S6. Biophotonics and Biomedical Imaging

Paper No.	Manuscript ID	Presenter	Title
2024-WED-P0601-P003	100625-001	Hao-Hsun Chung	High-speed OCT imaging of the retinal architectures using the HCG laser light source
2024-WED-P0601-P005	100901-001	Jou-Chen Lin	Development of an SPR Sensing Chip for Early Exosome Detection in Lung Cancer Diagnosis
2024-WED-P0601-P007	100163-001	Ming-Xuan Wang	Artifact Removal and Image Enhancement of Fiber bundle based Microendoscopy
2024-WED-P0601-P009	100254-002	Ping-Shun Hsieh	Metasurface-based light-sheet fluorescence microscope

Student Paper Awards (Oral)

S7. Display and Solid State Lighting

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0701-O001	100902-001	Chun-Wei Huang	Studies of Micro Light-Emitting Diodes with Controlled Emission Patterns
2024-WED-S0701-O002	100869-003	Han-Sheng Fu	Electronic Transport Properties of β -Ga ₂ O ₃ : DFT Calculations and Monte Carlo Simulations
2024-WED-S0702-O001	100312-001	Min-Han Lu	Versatile Thermoresponsive Polymer-Stabilized Cholesteric Liquid Crystal Smart Windows without Surface Orientation Treatment
2024-WED-S0702-O003	100159-001	Kuan-Wei Chen	Non-doped Fluorescent OLEDs with Pyrene Derivative as the Emitting Layer

Student Paper Awards (Poster)

S7. Display and Solid State Lighting

Paper No.	Manuscript ID	Presenter	Title
2024-THU-P0702-P003	100707-001	Chang-Nien Mao	Investigation of a polarizer-free liquid crystal phase modulation via nanometer size encapsulation of nematic liquid crystals
2024-THU-P0702-P011	100670-001	Shao-An Chen	High Efficiency Blue Triplet–triplet Fusion OLED Based on Pyrene Derivative with Different Dopant Concentrations
2024-THU-P0702-P013	100261-001	Ting Chun Lee	Mixing Nanoparticles in Color Conversion Layers for Enhancing Conversion Efficiency
2024-THU-P0702-P019	100327-001	Chi-Ruei Huang	Electrical Characteristics Enhancement of a-IWZO TFTs for High-Resolution Display Applications
2024-THU-P0702-P021	100253-001	Pei-Yun Huang	Enhancing P-type SnO Thin Film Transistor Electrical Characteristics by High-k Metal Gate Structure for High-resolution Display Technology
2024-THU-P0702-P025	100598-001	Xin-Ya Lai	Highly Reliable a-Si Gate Driver on Array with Dual Low Voltage Pre-Bootstrapping Structure for Automotive Display Application



PTIC 2024

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Student Paper Awards (Oral)

S8. Energy Photonics and Sustainable Technology

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0801-O001	100879-001	Nutcha Khambunkoed	Phenethyl Ammonium Iodide as an Effective Additive for Lead-free Perovskite Solar Cells
2024-WED-S0801-O002	100926-001	Ching-Wen Hwang	Optically Engineered Ceramic Nanofiber Aerogels for Versatile Passive Radiative Cooling Applications
2024-WED-S0802-O004	100575-001	Yun-Jie Jhang	Physics-driven Deep Learning in Laser-induced Thin Film Color Prediction

Student Paper Awards (Poster)

S8. Energy Photonics and Sustainable Technology

Paper No.	Manuscript ID	Presenter	Title
2024-THU-P0802-P010	100083-001	Jia-De Wei	Application of Vertically Oriented Graphene Nanoflakes Doped $\text{Cs}_{0.05}\text{FA}_{0.8}\text{MA}_{0.15}\text{Pb}(\text{I}_{0.85}\text{Br}_{0.15})_3$ in Perovskite Solar Cells
2024-THU-P0802-P013	100356-001	Yen-Hua Lin	Plasmon-Enhanced Photocatalytic Hydrogen Evolution in WS_2 -Based Hybrid Systems
2024-THU-P0802-P025	100637-001	Yu-Hsiang Tsai	Photoelectrochemical Water-Splitting Using Sputtered Cu_2O -based Electrodes for Hydrogen Production

Student Paper Awards (Oral)

S9. Optical Sensing

Paper No.	Manuscript ID	Presenter	Title
2024-WED-S0901-0004	100491-001	Ting-Kuan Lin	Air-backed Mandrel Fiber Optic Hydrophone design using Φ -OTDR system for Underwater Acoustic Sensing
2024-WED-S0902-0001	100574-002	Sheng-Hsiang Kao	Effects of Sputtering Temperature on β -Ga ₂ O ₃ -Based Deep UV Detector Prepared by RF Magnetron Sputtering
2024-WED-S0902-0003	100723-001	Ting-Wei Chang	Digital Color Local Surface Plasmon Resonance Detection of Interleukin-6 from Human Plasma Sample
2024-WED-S0902-0004	100758-001	Yang-En Zou	Analyses and Measurement of Hybrid Optical Fiber Communication and Fiber Vibration Sensing System
2024-THU-S0903-0002	100873-001	Gajendra Suthar	Photomultiplication type Two-in-One Non-fullerene Narrowband/Broadband Organic photodetectors
2024-THU-S0903-0003	100906-001	Radhika Bansal	GeSn Waveguide Photodetectors for Cryogenic Silicon Photonics operating in 2 μ m band

Student Paper Awards (Poster)

S9. Optical Sensing

Paper No.	Manuscript ID	Presenter	Title
2024-WED-P0901-P002	100027-001	Min-Kai Tsai	Open-cavity Fiber FPI Sensor Based on SMF-HCF Structure with Double-bevel Pencil-shaped Fiber
2024-WED-P0901-P011	100503-001	Chi-Hau Chen	Deep Learning Accelerated Optical Aberration Analysis with Shack-Hartmann Wavefront Sensor
2024-WED-P0901-P012	100622-001	Chien-Ju Lai	Preparation and Characterization of CdS Nanostructured Thin Film for UV-Blue Photodetector Application
2024-WED-P0901-P014	100668-002	Chun-Yen Wen	Optical Sensing of Single Aerosol Motion in an Optical Trap
2024-WED-P0901-P015	100716-001	Chen-Yu Chang	Performance Improvement for Distributed Fiber Sensing System by using Fixed Trigger Level Methodology
2024-WED-P0901-P017	100774-001	Min-Yang Hung	Swept-Source Resampling in Silicon-based Optical Coherence Tomography through Low Chromatic Dispersion