

Session A : Advanced Manufacturing Science and Technology

Poster Session

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
A-P-01	<u>Xin-Dian Lin</u> , Chia-Chin Chang, Lung-Hao Hu	The Measurement of Li-Ion Diffusion of LiFePO ₄ under Different Temperature Southern Taiwan University of Science and Technology
A-P-02	<u>I-Chih Wu</u> , Min-Haw Wang, Ling-Sheng Jang, Yi-Chu Hsu	Novel methods for defect localization of WLCSP after board level reliability tests National Cheng Kung University
A-P-03	<u>Po-Chia Huang</u> , Jow-Lay Huang, Sheng-Chang Wang, Muhammad Omar Shaikh	SNS and SNS2 Nanocrystals as Effective Electrocatalysts for the Hydrogen Evolution Reaction National Cheng Kung University
A-P-04	<u>Chia-Yuan Chou</u> , Sin-Wei Wu, Keh-moh Lin	Fabrication and characterization of ITO/AgNW/ITO and ZnO/AgNW/ZnO hybrid transparent electrodes Southern Taiwan University of Science and Technology
A-P-05	<u>Yung-Chuan Kang</u> , Sin-Bo Wang, Keh-moh Lin	Design and implementation of optical inspection system for curved lens Southern Taiwan University of Science and Technology
A-P-06	<u>F. Kino</u> , H. Oda, S. Tanaka, K. Hokamoto	Synthesis of Titanium Carbide in Liquid Paraffin through Metal Wire Explosion Kumamoto University
A-P-07	<u>T. Yamashita</u> , S. Otsuka, D. Inao, S. Tanaka, K. Hokamoto	Underwater Explosive Welding of Thin Stainless Steel on Copper Plate Kumamoto University

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
A-P-08	<u>Chia-Ling Wu</u> , Po-Chia Huang, Sanjaya Brahma, Jow-Lay Huang, Sheng-Chang Wang	One-Step Hot-Injection Method to Synthesize MoS ₂ @MoO ₂ Composite Electrocatalysts for Hydrogen Evolution Reaction National Cheng Kung University
A-P-09	<u>H. Ikeda</u> , Y. Kunita, K. Shimomiya, M. Oshita, K. Hokamoto	Fabrication of Unidirectional Porous Metal through Explosive Compaction Using Modified Cylindrical Geometry Kumamoto University
A-P-10	<u>Yuh-Tay, Sheen</u>	An on-Line Auto-Diagnosis System for Bearing Defect Southern Taiwan University of Science and Technology
A-P-11	<u>Hsinn-Jyh Tzeng</u> , Po-Chin Huang	A Study in The Discussion of The effect of In-Mold Decoration Process for Shear Stress through Mold Flow Analysis Southern Taiwan University of Science and Technology
A-P-12	<u>Hsin-Hung Cheng</u> , Ya-Jung Wu, and Chiao-Sheng Lin	Development and Application of Optical Nano/Micro- Scale Sensors with Strong Enhancements on the Aflatoxin in Food Taipei College of Maritime Technology
A-P-13	<u>Hsinn-Jyh Tzeng</u> , Jen-Chou Hsiung, Cheng-Lung Lee	The Study of Using Mold Flow Analysis to Investigate The Effect of Temperature for In-Mold Decoration Process Southern Taiwan University of Science and Technology
A-P-14	<u>Y.-W. Huang</u> , and Y.-C. Lee	Soft Mask Based on Embedded Color Resists with Application on Patterned Sapphire Substrate National Cheng Kung University
A-P-15	<u>H.Z. Chen</u> , T.Y. Tai, and Y.H. Wang	Stationary Bike with Continuously Variable Transmission of Resistance Southern Taiwan University of Science and Technology

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
A-P-16	<u>S.H. Feng</u> , T.Y. Tai, and G.Y. Chen	The Influence of Recast Layer on Tool Steel Under Different Step During EDM Process Southern Taiwan University of Science and Technology
A-P-17	<u>Tzu-Yao Tai</u> , Shun-Wei Huang, Guan-Yu Chen	The Influence of EDM Electrode Wear of Different Working Step During EDM Process Southern Taiwan University of Science and Technology
A-P-18	<u>Shou-Tao Peng</u> , Sheng-Sing Chen, Zih-Kai Lin	An Application of Visual Servoing Control to The Contour Trace of An Object Image Southern Taiwan University of Science and Technology
A-P-19	<u>Jui-Hung Liu</u> , Jien-Chen Chen	Typhoon Wind Analysis to The Wind Turbines in Taiwan Southern Taiwan University of Science and Technology
A-P-20	<u>Pei-Chung Chen</u> , Chau-Chin Chang	Application of Fuzzy Neural Network Technique to A Two-Link Manipulator Control Southern Taiwan University of Science and Technology
A-P-21	<u>Yu-Chu M. Li</u> , Chao-Ming Huang, Kai-Jan Lin, Hong-Siang Du, Chun-Yu Yang	Application of Supercapacitor to Assist Electric Tricycle Southern Taiwan University of Science and Technology
A-P-22	<u>Sheng-Ping Luo</u> , Jun-Ting Guo, Nai-Shang Liou	Investigatin The Mechanical Properties of Asia Pear by Indentation Test Southern Taiwan University of Science and Technology
A-P-23	<u>Da-Wei Yang</u> , Jia-Ling Syu, Nai-Shang Liou	Investigating The Deformation of Load Cell of a Texture Profile Analyzer by Using Finite Element Method Southern Taiwan University of Science and Technology

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
A-P-24	<u>Yi-Jhang Yang</u> , Bing-Shen Dung, Nai-Shang Liou	Development of a Drop Test Facility for the Study of Fruit Flesh Under Impact Load Southern Taiwan University of Science and Technology
A-P-25	<u>Chia-Hsiang Su</u> , Cheng-Wei Wu, Min-Hon He	Application of reverse engineering technology to shorten the product development cycle Southern Taiwan University of Science and Technology
A-P-26	<u>Chih-Liang Chu</u> , Hung-Chi Chen, Ming-Han Sie	5-Dof Nano-Positioning Stage With Error Compensation System Southern Taiwan University of Science and Technology
A-P-27	<u>Z.-H. He</u> , Y.-H. Chen, C.-C. Kao	Automatic RFID Transportation System Southern Taiwan University of Science and Technology
A-P-28	<u>C. Hsu</u> , S. Tsai, U. Peng, W. Wu	Enhanced Mechanical Properties of Flexible Ito Film Using Surface Recess Architecture Southern Taiwan University of Science and Technology
A-P-29	<u>Taiki Ishimoto</u> , Shuichi Torii	Study on High-Efficiency Electric Boiler by a Direct Sending of Electricity Kumamoto University
A-P-30	<u>Masatoshi Matsumura</u> , Shuichi Torii	Study on Thermal Characteristics of Graphene Oxide Nanofluid Kumamoto University
A-P-31	<u>Shoko Urakami</u> , Shuichi Torii	Studies on Char Combustion Transmission Characteristics by Air Negative Ions Atmosphere Kumamoto University
A-P-32	<u>Chun-Cheng Chen</u> , Ching-Hua Wei, Wu-Chung Sue	A Study of Acidic Etching with Pretreatment of Mechanical Lapping and Sandblast Applied on The Texturization of Multicrystalline Silicon Southern Taiwan University of Science and

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
A-P-33	<u>Takaomi Utatsu</u> , Mizue Munekata, Hiroyuki Yoshikawa, Yasuhiro Okumura	Characteristics of Boundary Layer Flow Over a High Speed Rotating Disk Under Orbital Motion Kumamoto University
A-P-34	<u>Takamasa Kinoshita</u> , Hiroyuki Yoshikawa, Mizue Munekata	Numerical simulation of flowing liquid film over rotating disk Kumamoto University
A-P-35	<u>Ryota Shimasaki</u> , Satoshi Kataoka, Wataru Tobo, Mizue Munekata, Hiroyuki	Effects on aerodynamic characteristics of a hovering micro quad-rotor near the transverse side walls Kumamoto University
A-P-36	<u>Fei-Hung Tsai</u>	Study and Analysis of ITO Films under Different Ar Flow by RF Magnetron Sputtering Southern Taiwan University of Science and Technology
A-P-37	<u>Shing-Jen Wu</u> and Wei-Yong Chen	HFBN-BASED MULTI-STREAM GROWTH-SIGNAL-TRANSDUCTION PREDICTION Department of Electrical Engineering, Da-Yeh University

Session C : Electrical Technology

Poster Session

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-001	Wei-Shun Huang, Yi-Chun Li, Siang-Fong Jhang, Wen-Cheng Tzou, Sheng-Hsiung Chang and Hon	Study of Gallium Oxide and Titanium Dioxide Thin Film Bragg Mirror Structure Southern Taiwan University of Science and Technology
C-P-002	Meng-Shan Wu, Wei-Kang Chang and Cheng-Ling Lee	Ultracompact Microcavity Fiber Fabry-Pérot Interferometer for Sensing Temperature National United University
C-P-003	Wei-Shun Huang, Yi-Chun Li, Siang-Fong Jhang, Wen-Cheng Tzou, Sheng-Hsiung Chang and Hon Kuan	Study of Optical Characterization Under Different Annealing Temperature by RF Magnetron Sputter System Grow Gallium Oxide Thin Film Southern Taiwan University of Science and Technology
C-P-004	Siang-Ru Huang, Mei-Li Chen and Sheng-Chang Wang	Synthesis and Characteristics of Layered Tin Sulfide Nanostructure Southern Taiwan University of Science and Technology
C-P-005	Mei-Li Chen, Rong-Kuan Wu, Yu-Jun Zheng, Sheng-Chang Wang and Fuh-Cheng Jong	Optical and Structural Characterization of Tin Dioxide Nanoparticles Southern Taiwan University of Science and Technology
C-P-006	Mei-Li Chen, Tung-Ying Tsai, Yu-Jun Zheng, Sheng-Chang Wang and Fuh-Cheng Jong	Synthesis and Characterization of Platinum Doped Tin Dioxide Nanoparticles Southern Taiwan University of Science and Technology
C-P-007	Kuen-Hsien Wu, Yu-Cheng Zhang and Jung-Hsuan Liu	Deposition of Carbon Layers on Oxidized Nanoporous Silicon Thin Films for Development of High-Temperature Ultra-Violet Photodetectors Southern Taiwan University of Science and Technology

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-008	Kuen-Hsien Wu, Yu-Cheng Zhang and Chong-Wei Li	Preparation of Titanium-Oxide Coating Layers on Oxidized Nanoporous Silicon by Atomic Layer Deposition for Optical-Sensing Applications Southern Taiwan University of Science and Technology
C-P-009	Ruey-Ching Twu, Yi-Fan Chu and Bo-Lin Lin	Measurements of Light-Induced Phase Variations on The Different Propagation Directions in Photorefractive Crystals Southern Taiwan University of Science and Technology
C-P-010	Ruey-Ching Twu, Hsiao-Ying Tu and Kai-Hsuan Li	Optical Intensity Modulation and Frequency Analysis for Refractive Index Variation Measurements Southern Taiwan University of Science and Technology
C-P-011	Yu-Wei Chang, Yuan-Jie Yang and Cheng-Ling Lee	Highly Sensitive Polymer Based Microcavity Fiber Fabry-Perot Interferometers National United University
C-P-012	Wen-Yi Lin, Jun-Han Lin and Teng-Wei Fu	Dynamic Micro-Air-Bubble Drifted in A Liquid Core Fiber Affected by The Gradient Temperature National United University
C-P-013	Tsuo-Chuan Yang, Hsyi-En Cheng, Zu-Po Yang , and Ing-Song Yu	Effect of Deposition Temperature and Post Deposition Anneal on The Properties of Atomic-Layer Deposited Titanium Dioxide Films National Chiao Tung University
C-P-014	Ming-Lun Lee	Ti/Al/Ti/Au Ohmic Contacts to Algan/Gan Heterostructure with Si Ion Implantation Southern Taiwan University of Science and Technology
C-P-015	Yu-Ru Lai, Cheng-Yang Hu, Kai-Siang Cai and Chih-Cheng Kao	Influence of Led Plant Light on Aquaponics System Southern Taiwan University of Science and Technology
C-P-016	Sheng-Hsiung Chang, Ta-Hsiung Cho, Hon Kuan, Yu-Sheng Chen and Shi-Qin Huang	An Innovative Application of HUD with Laser Autofocus System Southern Taiwan University of Science and Technology

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-017	Zong-Han He, Yi-Hao Chen and Chih-Cheng Kao	Automatic RFID Transportation System Southern Taiwan University of Science and Technology
C-P-018	Tomohiro Yamaguchi, Takuya Kobayashi, Keisuke Tanuma, Hiroki Nagai, Takeyoshi Onuma, Mitsunobu Sato and Tohru Honda	Study on Mist CVD Growth of In₂O₃ Kogakuin University, Japan
C-P-019	Wen-Tuan Wu, Ming-Ming Liu and Ching-Ming Hsu	Effect of Hole Transporting Material Thickness on Perovskite Solar Cell Southern Taiwan University of Science and Technology
C-P-020	Yi-Feng Lu, Chong-Wen Su, Jyun-Yi Wu and Ruei-Tang Chen	Development and Application of Dye-Sensitized Solar Cell for Face Recognition Southern Taiwan University of Science and Technology
C-P-021	Yi-You Hou and Sz-Yu Chiou	Automatic Object Tracking In Video Sequences Based On Computer Vision Method Southern Taiwan University of Science and Technology
C-P-022	Ching-Lung Chu and Deng-Feng Hsu	Ac Electronic Lod Emultor With Energy Recycling Southern Taiwan University of Science and Technology
C-P-023	Yi-Chun Li, Wei-Shun Huang, Bo-Jun Liu, Wen-Cheng Tzou and Hon Kuan	Using A Dip Coating Method Developed N-Type Zinc Oxide Nanorods Structure At Low Temperatures To Gallium Nitride Light Emitting Diode Southern Taiwan University of Science and Technology
C-P-024	I-Chih Wu, Min-Haw Wang, Ling-Sheng Jang and Yi-Chu Hsu	Novel Methods For Defect Localization Of WLCSP After Board Level Reliability Tests National Cheng Kung University

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-025	Yi-Kai Chiu, Pei-Jarn Chen and Niu Hung-Chuan	Implementation Of A Wireless Clinical Syringe System Southern Taiwan University of Science and Technology
C-P-026	Te-Chun Hung and Tsong-Shing Lee	Enhancement Of Boost Converter With Flexible Compensator Design Mechanism Using Power Management Ic Southern Taiwan University of Science and Technology
C-P-027	Wang Luke K., Yang Hsu-Ping and Wang Jun-Zhong	A Robust Windsurfing Recognition For Sequence Tracking Applications National Kaohsiung University of Applied Sciences Kaohsiung
C-P-028	Kuan-Wei Lin, Chun- Kai Wang, Yu-Zung Chiou, Jie-Si Jheng, Sheng-Po Chang and Shoou-Jinn Chang	The Investigation Of Frequency Response On Gan- Based Blue Leds With Different Chip Sizes Southern Taiwan University of Science and Technology
C-P-029	Yih Ran Sheu, Shih Wei Lin and Po Chun Tu	Combination Of Three-Joint Clamping Jaw And Force Sensing To Intelligent Object Picking Southern Taiwan University of Science and Technology
C-P-030	Yu-Ting Huang, Jing-Yau Tang, Pao- Cheng Huang, Min-Haw Wang, Yi-Chu Hsu and	Effects Of Environmental Electromagnetic Field On B16f10 Cancer Cells National Cheng Kung University
C-P-031	Jing-Yau Tang, Ting- Lin Ke, Min-Haw Wang, Yi-Chu Hsu and Ling-Sheng Jang	Enhancement Of Germination Rate Of Plant Seeds Pretreated Using Extremely Low Frequency Magnetic Field National Cheng Kung University

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-032	Ming-Tsun Tsai, Ching-Lung Chu, Syuan-Neng Jhao and Char Yong Siow	Integrated Ac Power Source With Linear Power Amplifier And Pwm Inverter Southern Taiwan University of Science and Technology
C-P-033	Chia-Hao Tsai, Chun- Ta Lee, Chia-Chih Huang, Yueh-Chien Lee, Ming-Kwen Tsai and Chia-Ti Wu	A Novel Variable Splitting Ratio Power Divider With An Unequal-Width Ring Resonator On Plasmonic Waveguides Tungnan University
C-P-034	Kaijan Lin	Design Of High Resolution Roundness Detection System Southern Taiwan University of Science and Technology
C-P-035	Rong-San Lin and Dong-Han Wu	Computational Complexity Reduction Of Order Using A Voice Activity Detection Algorithm Southern Taiwan University of Science and Technology
C-P-036	Cheng-Ting Hsu, Tsun-Jen Cheng, Yih- Der Lee and Yung-Ruei Chang	A Microgrid Demonstration Site In Taiwan Southern Taiwan University of Science and Technology
C-P-037	Kaijan Lin	Design And Fabrication Of Intelligent Thermostat Southern Taiwan University of Science and Technology
C-P-038	Hornq Jenq-Ruey and Xia Chuan -yong	Cloud Electricity Monitoring System Southern Taiwan University of Science and Technology

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-039	Nirmak Kumar Chaturvedi, Prasanna.R, Wen-Shan Chen, Chih-Kuang Wu, and Hung-Chi Yang	Segmented Bow-Tie Based Patch Antenna For Ground Penetrating Applications Southern Taiwan University of Science and Technology
C-P-040	C. Hsu, S. Tsai, U. Peng and W. Wu	Enhanced Mechanical Properties Of Flexible Ito Film Using Surface Recess Architectures Southern Taiwan University of Science and Technology
C-P-041	Jung-Chuan Fan, Wei-Yu Tseng, Li-Ying Lee and Shih-Fong Lee	The Optical Absorption Of Sub-Bandgap In Hydrogenated Amorphous Silicon Da-Yeh University
C-P-042	Cheng-Ting Hsu, Tsun-Jen Cheng and Chao-Shun Chen	Chimei Island Microgrid Demonstration Project Southern Taiwan University of Science and Technology
C-P-043	C. Hsu, Luo Chia-Liang, U. Peng and W. Wu	Optical And Electrical Properties Of Flexible Ito Film With Recessed Surface Structures Southern Taiwan University of Science and Technology
C-P-044	Yen-Ting Chen, Jia-Hong Zeng and Chun-Ju Hou	Image-Based Movement Tracking For Elderly Living At Home Southern Taiwan University of Science and Technology
C-P-045	Sung Yi-Syuan and Wang Min-Haw	Dental X-Rays Image Matching Using OPENCV Chinese Culture University
C-P-046	Chun-Ta Lee, Chia-Hao Tsai, Chia-Chih Huang, Yueh-Chien Lee, Ming-Kwen Tsai and Chia-Ti Wu	The Transmission Characteristics Of Band-Pass Filters Based On Metal-Insulator-Metal Waveguide Composed Of A Nanodisk Cavity Resonator And A Rectangular Cavity Resonator Tungnan University

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-047	Chun-Ju Hou, Yen-Ting Chen, Yu-Fang Wu, Chung-Yi Li, Min-Wei Huang, Jia-Ying Zhou, Li-Shun Cheng and Ling-Chen Hu	Analysis Of Physiological Signals Induced By Emotional Stimuli In Depressed Patients Southern Taiwan University of Science and Technology
C-P-048	Ji-Jer Huang and Hou-Yu Chou	Study Of Implementing Non-Contact Active Electrodes For Monitoring Heart Rate Variability Southern Taiwan University of Science and Technology
C-P-049	Guan-Hong Liu, Hao-Xuan Wang, Ming-Yang Huang, Nung-Hsiang Lin, Yu-Fang Kuo, Szu-Yin Lin, Ting-Lan Lin, Shaou-Gang Miaou, Jocelyn Flores Villaverde and Shih-Lun Chen	The Automatic Detection Of Prosthesis In Panoramic X-Ray Film Chung Yuan Christian University
C-P-050	Jung-Chuan Fan, Tzu-Hao Liu, Huang-Huei Sung and Shih-Fong Lee	The Magnetoresistance Of Semiconductor In Low Dimension System Da-Yeh University
C-P-051	Jung-Chuan Fan, I-Hsien Lin, Huang-Huei Sung, Li-Ying Lee and Shih-Fong Lee	The Electron Transport And Optical Properties Of Low Dimensional Quasi-Semiconductor In Carbon Nanotubes Da-Yeh University
C-P-052	Chun-Ju Hou, Yen-Ting Chen, Kai-Min Liang, Kun-Han Juan, Min-Wei Huang and Ling-Chen Hu	Gait Pattern Analysis Using Foot Pressure Sensing Pads Southern Taiwan University of Science and Technology

October 6 (Thursday) 13:30~14:30

Venue : E-13 Lobby

ID	Authors	Title and Affiliation
C-P-053	Chun-Ju Hou, Yen-Ting Chen, Min-Wei Huang, Chung-Yi Li, Jia-Ying Zhou, Li-Shun Cheng and Ling-Chen Hu	Physiological Signals Analysis In Emotional State For The Elders With Neurocognitive Disorder Southern Taiwan University of Science and Technology
C-P-054	Chia-Feng Liu, Min-Haw Wang, Ling-Sheng Jang and Yi-Chu Hsu	A Microwave Resonator Biosensor For Cell Trapping National Cheng Kung University
C-P-055	Che-Min Mi*, Wen-Yao Chen, and Yue-Ting Tsai*	Green Energy-Based Intelligent Farm Southern Taiwan University of Science and Technology
C-P-056	Ping-Hsun Liu and Jeeng-Min Ling	Economic Analysis Of Grid-Connected Renewable Energy Generation System Southern Taiwan University of Science and Technology