

**Session A1**

Date	Time	<p style="text-align: center;"><b>Room A</b>  <b>B. Mechatronics and Robotics Engineering, SSA. Advances in Marine Equipment, Facility, and Device</b>  <i>Prof. Hyeung-Sik Choi, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	09:00~09:15	<p><b>B7001</b>  <b>Isocline Performance analysis of Rocker-Finger Gripper's Ground Link</b>  <i>Yun-Ju Chuang, Tsing-Tshih Tsung, Ho Chang, Yin-Tung Sun</i></p>
	09:15~09:30	<p><b>B7004</b>  <b>Investigation of a Spring Flexible Gripper</b>  <i>Chun-Lun Shen, Yun-Ju Chuang, Lee-Long Han, Tsing-Tshih Tsung, Ho Chang</i></p>
	09:30~09:45	<p><b>SSA7002</b>  <b>Design and Experiment of Navigation System for Hybrid Underwater Glider</b>  <i>Sang-ki Jeong, Hyeung-Sik Choi, Jin-Il Kang, Ji-Youn Oh, Seo-Kang Kim, Thieu Quang Minh Nhat</i></p>
	09:45~10:00	<p><b>SSA7003</b>  <b>Experimental Study of Dynamic Stability of Underwater Vehicle-Manipulator System using Zero Moment Point</b>  <i>Jin-Il Kang, Hyeung-Sik Choi, Mai The Vu, Nguyen Ngoc Duc, Dae-Hyeong Ji, and Joon-Young Kim</i></p>
	10:00~10:15	<p><b>SSA7004</b>  <b>Energy Efficient Trajectory Design for the Underwater Vehicle with Bounded Inputs Using the Global Optimal Sliding-Mode Control</b>  <i>Mai The Vu, Hyeung-Sik Choi, Sang-Ki Jeong, Dong-Wook Jung, and Hyun-Joong Son</i></p>

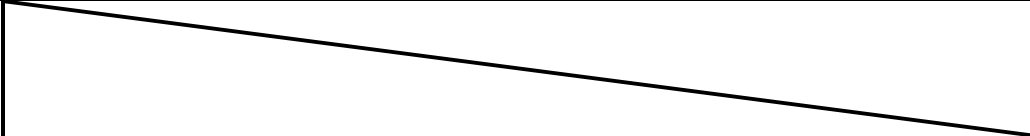
## Session B1

Date	Time	<p style="text-align: center;"><b>Room B</b></p> <p>A. Materials Engineering, O. Other Engineering and Technology related Topics, Invited Speech  <i>Prof. Tao-Hsing Chen, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	09:00~09:15	<p><b>A7004</b>  <b>Fabrication of Attapulgite-Ag<sub>2</sub>WO<sub>4</sub> Nanocomposite with Enhanced Visible-light Photocatalytic Activity</b>  <i>Yu-Xiang Hua, Xiao-Heng Liu</i></p>
	09:15~09:30	<p><b>A7005</b>  <b>The Effect of Additional Layer between Liner and PMMA on Reducing Crack of Cement Mantle Hip Joint</b>  <i>J Jamari, Han Ay Lie, Eko Saputra, Iwan Budiwan Anwar, Emile van der Heide</i></p>
	09:30~09:45	<p><b>O7006</b>  <b>Safety Analysis for Integrated Modular Avionics Based on Blueprints</b>  <i>Jiayun Chu, Xiaohong Bao, Tingdi Zhao, Fuchun ren</i></p>
	09:45~10:15	<p><b>Invited Speech</b>  <b>Topic. Carbohydrate Polymer Lubrication with Stearic Acid</b>  <i>Shih-Chen Shi, Yao-Qing Peng</i>  <b>Speaker. Prof. Shih-Chen Shi, National Cheng Kung University</b></p>

## Session C1

Date	Time	<p style="text-align: center;"><b>Room C</b></p> <p><b>G. Green Technology &amp; Civil Engineering,    WB. Biomechanics</b>  <i>Prof. Wen-Pei Sung, Session Chair</i>  <i>Prof. Dong Ha Lee, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	09:00~09:15	<p><b>G7008</b>  <b>Land Cover Classification of Landsat OLI Imagery Based on Optimum Index Factor</b>  <i>Tri Dev Acharya, In Tae Yang and Dong Ha Lee</i></p>
	09:15~09:30	<p><b>G7013</b>  <b>Strength Characteristics of Artificial Organic Soils Stabilized with Copolymer Stabilizer</b>  <i>Chia-Wen Law, Felix Ngee-Leh Ling, Boon-Khiang Ng</i></p>
	09:30~09:45	<p><b>G7014</b>  <b>Developing Neutral Equilibrium Device as Dynamic Virtual Piers for Emergency Relief Bridge</b>  <i>Ming-Hsiang Shih, Wen-Pei Sung, Yu-Cheng Wang</i></p>
	09:45~10:00	<p><b>G7017</b>  <b>Affectivity of Biological Cement's Application to Sandy Soil for Geotechnical Engineering</b>  <i>Wen-Yi Hung, Maytri Handayani, Chia-Sheng Hsu, Ssu-Ching Chen, Emma Yuliani</i></p>
	10:00~10:15	<p><b>WB7009</b>  <b>Open Source Software for Post-Match Spatio-Temporal Performance Analysis of Soccer Players</b>  <i>Tyler Cross, Aneesh Chand</i></p>

## Session D1

Date	Time	<p style="text-align: center;"><b>Room D</b></p> <p><b>O. Other Engineering and Technology related Topics, SJ. Recent Advances in Green Innovative Materials and Civil Engineering, SQ. Innovations in Architecture, Engineering and Construction</b>  <i>Prof. Kimio Oguchi, Session Chair</i>  <i>Prof. Shang-Yuan Chen, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	09:00~09:15	<p><b>O7007</b>  <b>Simulation and Motion Analysis of Deepwater Manifold Lifting</b>  <i>Chen Zhiwei, Zhao Tingdi, Jiao Jian, Mao Dongfeng</i></p>
	09:15~09:30	<p><b>O7008</b>  <b>Human Reliability Research in Numerical Control Machining Based on Optimized Holistic Decision Tree</b>  <i>Lu Chen, Run-Jiang Zhao, Jian Jiao, Yan-Bo Zhang</i></p>
	09:30~09:45	<p><b>O7011</b>  <b>Optimum Distance to Voice Navigate in Walking Support System for Visually Impaired</b>  <i>Akinari Ohfuji, Yoshihiro Taniura, Dai Hanawa, Kimio Oguchi</i></p>
	09:45~10:00	
	10:00~10:15	<p><b>SQ7001</b>  <b>Green Building Information Modeling: Integrated Design and Analysis Decision-Making Procedures for Net Zero Energy Buildings</b>  <i>Shang-Yuan Chen</i></p>

## Session E1

Date	Time	<p style="text-align: center;"><b>Room E</b></p> <b>F. Computer &amp; Information Engineering</b> <i>Dr. Chunghui Kuo, Session Chair</i> <i>Prof. Yen-Ching Chang, Session Chair</i>
<b>28<sup>th</sup> Oct.</b> <b>(Sat.)</b>	09:00~09:15	<b>F7007</b> <b>The Novel Cloud Application Technology with Virtual Platform</b> <i>Ying-Chuan Chen, Shuen-Tai Wang, Yi-Lang Tsai</i>
	09:15~09:30	<b>F7019</b> <b>Real-Time Big Data Analytics for Hard Drive Preventive Maintenance</b> <i>Chuan-Jun Su, Shi-Feng Huang</i>
	09:30~09:45	<b>F7028</b> <b>A Flexible Contrast Enhancement Method with Visual Effects and Brightness Preservation: Histogram Planting</b> <i>Yen-Ching Chang</i>
	09:45~10:00	<b>F7035</b> <b>Benchmarking Handheld GUI: Smoothness QoE</b> <i>Ying-Dar Lin, Edward T.-H. Chu, Chien-Ling Wen, Yuan-Cheng Lai</i>
	10:00~10:15	<b>F7043</b> <b>Big Data Analytics for Enrichment of Rural Area Content Tourism in Okhotsk Sub-Prefecture of Japan</b> <i>Ali Bakdur, Fumito Masui, Michal Ptaszynski</i>

Session A2

Date	Time	<p style="text-align: center;"><b>Room A</b></p> <p><b>J. Mechanical Engineering, SK. Mechanism and Machine Design</b>  <i>Prof. Hsiang-Chen Hsu, Session Chair</i>  <i>Prof. Wan-Tsun Tseng, Session Chair</i></p>
<b>28<sup>th</sup> Oct.</b> <b>(Sat.)</b>	10:30~10:45	<p><b>J7002</b>  <b>Design and Fabrication on Wearable Medical Device for Initial Osteoarthritis (OA) Detection</b>  <i>Hsiang-Chen Hsu, Jia-Jung Wang, Chin-Chuan Tsai, Yu-Jung Huang and Lih-Shan Chen</i></p>
	10:45~11:00	<p><b>J7003</b>  <b>Experimental and Finite Element Analysis on the Behavior of Locally Dented Circular Tubes under Cyclic Bending with Different Dent Depths and Diameter-to-thickness Ratios</b>  <i>Kuo-Long Lee, Shung-Ru Wu, Wen-Fung Pan</i></p>
	11:00~11:15	<p><b>J7006</b>  <b>The Double Balance Lever of Torque Standard Machine with 5 KNm Calibration Capability in CMS</b>  <i>Chiu-Hsien Chen and Sheau-shi Pan</i></p>
	11:15~11:30	<p><b>J7023</b>  <b>Multi-Faults Diagnosis for Vibratory Characterization of Rotating Machinery through Transient Signal and Wavelet Synchrosqueezing Transform</b>  <i>Bernard Xavier Tchomeni, Alfayo Alugongo</i></p>
	11:30~11:45	<p><b>J7024</b>  <b>Numerical and Experimental Diagnosis of Complex Rotor System by Time-Frequency Techniques</b>  <i>Bernard Xavier Tchomeni, Alfayo Alugongo</i></p>
	11:45~12:00	<p><b>SK7001</b>  <b>Determining the Rotor Induced Voltage of a Novel Three-phase Induction Motor with Wound Rotor</b>  <i>Wan-Tsun Tseng, Bin-Fong Gau, Jun-Hao Sung, You-Long Xie</i></p>

Session B2

Date	Time	<p style="text-align: center;"><b>Room B</b></p> <p>L. Environmental, Food, Health Science &amp; Technology, TB. Environmental Engineering  <i>Prof. Ikuo Yamamoto, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	10:30~10:45	<p><b>L7007</b>  <b>Swimming Motion: Butterfly Analysis Based on a Mobile Device</b>  <i>Eric C. Shiao, Yi-Fan Chang, Tung-Wu Lu</i></p>
	10:45~11:00	<p><b>L7008</b>  <b>Wrist Rehabilitation Robotic System and Its Effectiveness for Hemiplegic Patients</b>  <i>Ikuo Yamamoto, Miki Matsui, Toshio Higashi, Naoki Iso, Murray Lawn, Kenji Hachisuka, Akiko Hachisuka</i></p>
	11:00~11:15	<p><b>L7009</b>  <b>Organic Food Consumption Across Taiwan Strait: Self Congruity, Attitude, and Purchase Intention under the Moderating Role of Inertia</b>  <i>Tsai-Fa Yen</i></p>
	11:15~11:30	
	11:30~11:45	
	11:45~12:00	<p><b>TB7008</b>  <b>Advance Innovative Approach for Analysis of Interrelationship Among Water Quality Variables and Vegetation Indices in Energy Limited and Water Limited Regions</b>  <i>Muhammad Mazhar Iqbal, Muhammad Shoaib, Jung Lyul Lee</i></p>

## Session C2

Date	Time	<p style="text-align: center;"><b>Room C</b></p> <p><b>N. Intelligent Computing, TA. Civil &amp; Structure Engineering</b>  <i>Prof. Koichiro Ishikawa, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	10:30~10:45	<p><b>N7005</b>  <b>Combining Multiple Predictors for Electricity Demand Forecast</b>  <i>Peng-Yeng Yin, Ching-Hui Chao</i></p>
	10:45~11:00	<p><b>TA7003</b>  <b>Earthquake Response Control of Double Layer Truss Walls by means of Innovative Fuse Connections</b>  <i>Koichiro Ishikawa</i></p>
	11:00~11:15	<p><b>TA7005</b>  <b>Integrating Simulation and Artificial Bee Colony for Planning Mass Evacuation Routes of Public Buildings</b>  <i>Hsin-Yun Lee, Hao-Hsi Tseng, Meng-Cong Zheng, Pei-Ying Li</i></p>
	11:15~11:30	<p><b>TA7013</b>  <b>Assessment of the Traffic-Induced Vibrations in Ozanam Building of Adamson University</b>  <i>Earl Shadd D. Araña, Rae Cecil N. Acedera, Leira Liz A. Bisain, John Elmer C. Guillermo, and Albert A. Griño, Jr.</i></p>
	11:30~11:45	<p><b>TA7016</b>  <b>Failure Contour for Cyclic Shear Behavior Evaluation on the Marine Silty Sand</b>  <i>Jin Man Kim, Su Won Son, Min Jae Ko, Pouyan Bagheri, In Gu Kang, Jong Chan Yoon, Geon Young Moon, Dong Hun Lee</i></p>
	11:45~12:00	<p><b>TA7017</b>  <b>Exploring Association Rules of Work Activities for Producing Precast Components in Taiwan Construction Industry</b>  <i>Jieh-Haur Chen, Sheng-Kuo Lin and Hsing-Wei Tai</i></p>



**Session D2**

<b>Date</b>	<b>Time</b>	<p style="text-align: center;"><b>Room D</b></p> <p><b>E. Chemical &amp; Biomedical Engineering, SW. Precision Systems and Biomedical Technology, WA. Biocomputing and Bioinformatics</b>  <i>Prof. Moon G. Lee, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	10:30~10:45	<p><b>E7003</b>  <b>Effects of Customized Exercise Rehabilitation Device on Dynamic Postural Balance in Patients with Scoliosis</b>  <i>Ji-Yong Jung, Jung-Ja Kim</i></p>
	10:45~11:00	<p><b>SW7001</b>  <b>Optimal Microneedle Design for Drug Delivery Based on Insertion Force Experiments with Variable Geometry</b>  <i>Bummo Ahn</i></p>
	11:00~11:15	<p><b>SW7002</b>  <b>Urinary Incontinence Treatment Tension Sling</b>  <i>Yeongjin Kim, Jeongyoon Yi, and Bummo Ahn</i></p>
	11:15~11:30	<p><b>SW7004</b>  <b>Development of Vibrotactile Cradle for Smart Cell-phone Representing Spatial and Directional Cues</b>  <i>Gi-Hun Yang, Yeonsub Jin, and Sungchul Kang</i></p>
	11:30~11:45	<p><b>SW7008</b>  <b>Design and Experiment of Noncontact Eddy Current Damper in Air Bearing Guided Linear Motion System</b>  <i>Eunho Sung, Yongho Jeon, Young-Man Choi, Kihyun Kim, Moon G. Lee</i></p>
	11:45~12:00	<p><b>WA7003</b>  <b>Optimal Template Mask Search for Multiple DNA Microarray Images Analysis</b>  <i>JaeHong Min, Jong-Dae Kim, Yu-Seop Kim, Chan-Young Park, Ji-Hyoung Lee and Hye-Jeong Song</i></p>

## Session E2

Date	Time	<p style="text-align: center;"><b>Room E</b></p> <p><b>C. Electrical &amp; Electronic Engineering, SE. Data Driven Modelling and Soft Computing, SF. Recent Innovations and Smart Applications in Wireless Network, SR. Information and Communications Technological Convergence and Applications</b></p> <p><i>Dr. Xiangyang Ye, Session Chair</i> <i>Prof. Huan-Liang Tsai, Session Chair</i></p>
<b>28<sup>th</sup> Oct. (Sat.)</b>	10:30~10:45	<p><b>C7022</b></p> <p><b>Experiment and CFD Simulation of Exhaust Tube in High-Voltage Circuit Breaker</b></p> <p><i>Xiangyang Ye, Francesco Pisu, Stephan Grob, Mahesh Dhotre, Javier Mantilla</i></p>
	10:45~11:00	<p><b>C7027</b></p> <p><b>Development of Arduino-Based Photovoltaic (PV) Supervision System Using MATLAB/Simulink</b></p> <p><i>Yu-Hui Lian, Chih-Han Huang, and Huan-Liang Tsai</i></p>
	11:00~11:15	<p><b>SE7005</b></p> <p><b>Proposal of a State Estimation Model of Diffusion Phenomenon Using Twitter Information</b></p> <p><i>Kohei Otake, Takashi Namatame</i></p>
	11:15~11:30	<p><b>SF7006</b></p> <p><b>A Reconfigurable Ring-Tree Topology for Bluetooth Sensor Networks</b></p> <p><i>Chih-Min Yu, Chun-Chyuan Chen and Jun-You Huang</i></p>
	11:30~11:45	<p><b>SR7001</b></p> <p><b>Risk Assessment for Global Supplier Selection Using Text Mining</b></p> <p><i>Chuan-Jun Su, Yin-An Chen</i></p>
	11:45~12:00	<p><b>SR7006</b></p> <p><b>An Interleaved-Sleeping-Listening Algorithm for Power-Saving Scheduling in Mobile Networks</b></p> <p><i>Riyanto Jayadi, Liang-Chun Chen, Yuan-Cheng Lai</i></p>

Session A3

Date	Time	<p style="text-align: center;"><b>Room A</b></p> <p><b>SS. Healthcare Information and Management, WC. Health Care Technology</b>  <i>Prof. Tin-Kan Hung, Session Chair</i></p>
<p><b>29<sup>th</sup> Oct.</b> (Sun.)</p>	<p>09:00~09:15</p>	<p><b>SS7002</b>  <b>Measurement of Respiration Rate and Depth through Difference in Temperature between Skin Surface and Nostril by Using Thermal Image</b>  <i>Hieyong Jeong, Tianyi Wang, Takafumi Ohno, and Yuko Ohno</i></p>
	<p>09:15~09:30</p>	<p><b>SS7004</b>  <b>Noninvasive Measurement for Human Hand Behavior in Grasping Task with Prehensile Pressure Sensor</b>  <i>Tianyi Wang, Hieyong Jeong, Takafumi Ohno, Soichiro Watanabe, Yuko Ohno</i></p>
	<p>09:30~09:45</p>	<p><b>SS7008</b>  <b>Characterization of Retinal Fundus Opalescent Sheen in the Retinal Nerve Fiber Layer in Relation to Other Visual Assessment Parameters in a 16-year Old Teenage Group in Taiwan</b>  <i>Li-Chien Yang, David Pei-Cheng Lin, Han-Hsin Chang, Kwong-Chung Tung</i></p>
	<p>09:45~10:00</p>	<p><b>SS7009</b>  <b>Analyzing the Medical Factors Influencing the Rate of Emergency Department Revisits of First-time Patients within 72 Hours of Hospital Discharge: An Empirical Study Using Probit and Logit Models</b>  <i>Li-Chun Huang, Hsien-Chang Li, Ya-Wen Huang, Ming-Jang Weng</i></p>
	<p>10:00~10:15</p>	<p><b>WC7007</b>  <b>Low Socioeconomic Status and Visual Health Behaviors as Factors in Childhood Myopia Development</b>  <i>Cheng-Jong Lee, Yu-Ting Hsiao, Philip M. M. Sced, Shi-Huang Lee</i></p>

Session B3

Date	Time	<p style="text-align: center;"><b>Room B</b></p> <p><b>J. Mechanical Engineering, O. Other Engineering and Technology related Topics, SZ. Recent Advances in Microtechnology ,</b>  <i>Prof. Minvydas K. Ragulskis, Session Chair</i>  <i>Prof. Dyi-Cheng Chen, Session Chair</i></p>
<b>29<sup>th</sup> Oct. (Sun.)</b>	09:00~09:15	<p><b>O7012</b>  <b>Research on Coalescence and Probabilistic Failure Physics Modeling of Coplanar Semiellipse Cracks</b>  <i>Sufen Li, Yufeng Sun, Weiwei Hu, Zhaoxia Liu</i></p>
	09:15~09:30	<p><b>O7013</b>  <b>Improving the Overall Passenger Service Quality of the International Airport: Through Developing Innovative Service to Satisfy Tourist's Potential Travel Demands</b>  <i>Kuang Li Yang, D. Y. Sha, Yung-Tsan Jou</i></p>
	09:30~09:45	<p><b>SZ7006</b>  <b>Micro-nano 3D Printing of Electronically Conductive Polymers as a New Process for Achieving Higher Electronic Conductivities</b>  <i>Katsumi Yamada, Yuri Magori, Junji Sone</i></p>
	09:45~10:00	<p><b>J7017</b>  <b>The Study of Interior Ballistic by Nonlinear Finite Element Method for the Polygonal Gun Barrel of 9mm Pistol</b>  <i>Shigan Deng, Tsung-Han Lin</i></p>
	10:00~10:15	<p><b>SM7001</b>  <b>Study of the Membrane Restrictors on the Hydrostatic Bearing</b>  <i>Dyi-Cheng Chen, Ming-Fei Chen, Chih-Hsuan Pan and Jun-Yan Pan</i></p>

### Session C3

Date	Time	<p style="text-align: center;"><b>Room C</b></p> <p>ST. Control System and Applications, SU. Intelligent System and Internet,            WF. Modelling, Simulation, Systems and Control  <i>Prof. Kuo-Lan Su, Session Chair</i>  <i>Dr. Jr. Hung Guo, Session Chair</i></p>
<b>29<sup>th</sup> Oct. (Sun.)</b>	09:00~09:15	<p><b>SU7001</b>  <b>Development of a SLAM Based Automated Guided Vehicle</b>  <i>Kuo-Lan Su, Jian-Fu Weng, Jr-Hung Guo</i></p>
	09:15~09:30	<p><b>ST7003</b>  <b>Design a Mobile Based Robot Arm with the Image System</b>  <i>Kuo-Lan Su, Ji-Hua Li, Chien-Ming Hung</i></p>
	09:30~09:45	<p><b>ST7006</b>  <b>Internet of Things Technology Applications in the Advanced Planning System</b>  <i>Jr. Hung Guo</i></p>
	09:45~10:00	<p><b>WF7001</b>  <b>Proposal of a Method for Formulating Warm-Up Exercises for Logistics Workers by Musculoskeletal simulation</b>  <i>Soichiro Watanabe, Hieyong Jeong, Daisuke Furushima, Nao Sonoda, Tianyi Wang, Yuko Ohno</i></p>
	10:00~10:15	<p><b>WF7002</b>  <b>Simulation and Visualization of Brain Herniation Caused by Subdural Hematoma Using Finite-Element Modeling</b>  <i>Ke-Chun Huang, Furen Xiao, I-Jen Chiang, Yi-Long Chen, Yi-Hsin Tsai, Jau-Min Wong, Chun-Chih Liao</i></p>

### Session D3

Date	Time	<p style="text-align: center;"><b>Room D</b></p> <b>SI. Recent Innovations and Applications in Multimedia, SX. Mathematical Modeling of Engineering and System, SSD. Intelligent Systems and Control</b> <i>Prof. Meng-Han Yang, Session Chair</i> <i>Prof. Yung-Yue Chen, Session Chair</i>
<b>29<sup>th</sup> Oct. (Sun.)</b>	09:00~09:15	<b>SI7007</b> <b>Design of a Fuzzy PD+I Controller for Path Following of mBot System</b> <i>Chin-Tan Lee, Bo-Rui Su, Win-Der Lee</i>
	09:15~09:30	<b>SSD7014</b> <b>Intelligent Control and Performance Evaluation of a Novel Precise Positioning Stage</b> <i>Guang-qing Lu, Audrius Čereška, Giedrius Augustinavičius, Rimas Maskeliunas, Minvydas Ragulskis</i>
	09:30~09:45	<b>SX7009</b> <b>Data Mining the Co-Morbid Associations Between Dementia and Various Kinds of Illnesses Using a Medicine Database</b> <i>Pei Hua Chen, Fu-Yi Yang, Meng-Han Yang</i>
	09:45~10:00	<b>SX7010</b> <b>Using Methods of Time Series Data Mining to Recognize the Influences of Environmental Factors on Epileptic Seizures</b> <i>Jhe-Nan Lin, Fu-Yi Yang, Meng-Han Yang</i>
	10:00~10:15	<b>SX7012</b> <b>A Complete Modeling for Fish Robots with Actuators</b> <i>Yung-Yue Chen</i>

**Session A4**

Date	Time	<p style="text-align: center;"><b>Room A</b></p> <p><b>SA. Recent Advances on Dynamics and Vibration Engineering</b>  <i>Prof. Buntara S. Gan, Session Chair</i>  <i>Prof. Tai-Ping Chang, Session Chair</i></p>
<b>29<sup>th</sup> Oct. (Sun.)</b>	10:30~10:45	<p><b>SA7001</b>  <b>Chaotic Motion of Fluid-Loaded Double-Walled Carbon Nanotubes</b>  <i>Tai-Ping Chang</i></p>
	10:45~11:00	<p><b>SA7002</b>  <b>Chaotic Control of Snap Systems by Control of Amplitude, Velocity and Acceleration</b>  <i>Tai-Ping Chang</i></p>
	11:00~11:15	<p><b>SA7006</b>  <b>Semi Analytical Solution of a Rigid Pavement under a Moving Load on a Kerr Foundation Model</b>  <i>Sofia W. Alisjahbana, Irene Alisjahbana, Shota Kiryu, Buntara S. Gan</i></p>
	11:15~11:30	<p><b>SA7008</b>  <b>Analysis and Reduction of Wobble Vibration for Motorcycles</b>  <i>Yaojung Shiao, Po-Feng Chiang</i></p>
	11:30~11:45	<p><b>SA7013</b>  <b>Seismic Evaluation and Collapse Prediction of RC Moment Frame Structures by Using Energy Balance Concept</b>  <i>Wen-Cheng Liao, Yu-Heng Chiang-Hsieh, Subhash C. Goel</i></p>
	11:45~12:00	<p><b>SA7017</b>  <b>Analytical Solution for Natural Frequency of Restrained Torsional Vibration of Composite Box Girders with Corrugated Steel Webs</b>  <i>Ruijuan Jiang, Lingzhi Xie, Jian An, Tianhua Xu</i></p>

Session B4

Date	Time	<p style="text-align: center;"><b>Room B</b></p> <p><b>D. Optical Engineering, M. Innovation Management, SD. Recent Development on Polymer, Polymer Composites and Polymer Application</b>  <b>SG. Recent Innovations in Sensors,</b>  <i>Prof. Huei-Zhen Gu, Session Chair</i>  <i>Prof. Jyh-Cheng Yu, Session Chair</i></p>
<b>29<sup>th</sup> Oct. (Sun.)</b>	10:30~10:45	<p><b>D7001</b>  <b>The High Precision Compact Laser Interferometer Used in Rockwell Hardness Standards System in CMS</b>  <i>Sheau-shi Pan and Chiu-Hsien Chen</i></p>
	10:45~11:00	<p><b>D7002</b>  <b>Optical design of High Illuminance Reading Panel Using Edge-lit LED Light Guide Plate</b>  <i>Jyh-Cheng Yu and Chaio-Kai Chang</i></p>
	11:00~11:15	<p><b>M7004</b>  <b>A Research on Teaching Innovative Management of Teaching Assessment-Using IT to Implement Students' On-Line Peer Review of Learning Outcomes through Rubric</b>  <i>Huei-Zhen Gu, Chien-Wei Ku</i></p>
	11:15~11:30	<p><b>M7006</b>  <b>Evaluating Key Factors Affecting Knowledge Exchange in Social Media Community</b>  <i>Li-Wen Chuang, Shu-Ping Chiu</i></p>
	11:30~11:45	<p><b>M7010</b>  <b>Opportunity Recognition for Small Businesses in Medical Tourism in Taiwan</b>  <i>Ying-Hsun Hung, Jung Ma, Jerome Chih-Lung Chou, Ching-pei Lin</i></p>
	11:45~12:00	<p><b>SG7014</b>  <b>Image Sensor Based Fast Industrial Robot Positioning System for Assembly Implementation</b>  <i>Chyi-Yeu Lin, Le Thai Son, Yu-Lun Chang, Ya-Shiun Shiue</i></p>
	12:00~12:15	<p><b>SD7001</b>  <b>Mechanical Properties of Glass Bead-modified Polymer Composite</b>  <i>Tsung-Han Hsieh, Ming-Yuan Shen, Yau-Shian Huang, Qi-Qian He, Hsuan-Chih Chen</i></p>



Session C4

Date	Time	<p style="text-align: center;"><b>Room C</b></p> <p><b>I. Control Engineering, SSD. Intelligent Systems and Control</b>  <i>Prof. Chih-Min Lin, Session Chair</i>  <i>Prof. Yung-Yao Chen, Session Chair</i></p>
<b>29<sup>th</sup> Oct. (Sun.)</b>	10:30~10:45	<p><b>I7002</b>  <b>XML-Based Modeling Method of Phased-mission Systems Subject to Probabilistic Common Cause Failures</b>  <i>Huan Wu, Ting-Di Zhao, Jian Jiao</i></p>
	10:45~11:00	<p><b>I7004</b>  <b>Constant Voltage/Current with Slowly Rising Control for High Power DC-DC Converter Based on FPGA Digital Control</b>  <i>Cheng-Shion Shieh</i></p>
	11:00~11:15	<p><b>I7007</b>  <b>Improved Anticipatory Iterative Learning Control System for Positioning Accuracy by Particle Swarm Optimization</b>  <i>Yi-Cheng Huang, Shih-Wen Hsu and Ming-You Ma</i></p>
	11:15~11:30	<p><b>SSD7002</b>  <b>Multidimensional Classifier Design using Fuzzy Brain Emotional Learning Neural Network</b>  <i>Jing Zhao, Chih-Min Lin</i></p>
	11:30~11:45	<p><b>SSD7004</b>  <b>Multiple Exposure Fusion Based on Sharpness-Controllable Fuzzy Feedback Framework</b>  <i>Yung-Yao Chen, Chih-Hsien Hsia, and Chiao-Wen Lu</i></p>
	11:45~12:00	<p><b>SSD7009</b>  <b>Research on Massive ECG Data in XGBoost</b>  <i>Hao Li, Yan Kang, Bin Pu and Chenyang Lu</i></p>

Poster I

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	09:00   09:50	1	<b>A7002</b> <b>Laser Markings on Surface and Interior of Transparent Materials Using Nanosecond Pulsed Laser</b> <i>Kang Chao, Hsing-Cheng Yu, and Donyau Chiang</i>
		2	<b>A7007</b> <b>Mechanical Properties of Metal/Ceramic Composites Predicted by Multiscale Simulation</b> <i>Cheng-Kuang Lee, Tien-Jung Huang, Chun-Mu Chen</i>
		3	<b>A7012</b> <b>Antiwear and Antiimpact Analyses of a Multilayer Thin Film Die and Application in the Extrusion Forging Forming of Phillips Screw Punches</b> <i>Tung-Sheng Yang, Yin-Yu Chang, Sheng-Yi Chang</i>
		4	
		5	<b>B7003</b> <b>Development of a Single-nozzle-based FDM Printer for Multi-material Printing</b> <i>Cheng-Tiao Hsieh</i>
		6	<b>B7005</b> <b>Design of a Robot Arm with Safety Consideration</b> <i>Jin-Siang Shaw and Sheng-Kai Lai</i>
		7	<b>C7002</b> <b>Hiding Stealth CDMA Signals in Public BPSK Channel for Communications Secrecy</b> <i>Wen-Zong Zhang, Chih-Ta Yen, Jen-Fa Huang</i>
		8	<b>C7007</b> <b>Fabrication of (111)-Silicon Nanowire Photodetector for Retinal Prostheses Using Light-Controlled Current Stimulation</b> <i>Yeok In Choi, Hyoungho Ko, and Sangmin Lee</i>
		9	<b>C7013</b> <b>Secure Integrated Circuit with Physical Attack Detection using Reconfigurable Top Metal Shield</b> <i>Yeongjin Mun, Hyungseup Kim, Youngwoon Ko, Byeoncheol Lee, Dong Kyue Kim, Byong-Deok Choi, Ji-Hoon Kim and Hyoungho Ko</i>
		10	<b>C7014</b> <b>Secure Circuit with Optical Energy Harvesting using On-chip Photodiode Against Unpowered Physical Attacks</b> <i>Hyungseup Kim, Youngwoon Ko, Yeongjin Mun, Byeoncheol Lee, Dong Kyue Kim, Byong-Deok Choi, Ji-Hoon Kim and Hyoungho Ko</i>

**Poster I (Continued)**

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	09:00   09:50	11	<b>C7020</b> <b>Touch Panel Design Using Mutual Capacitive Method with Different Patterns of Sensing and Driving Electrodes</b> <i>Jium-Ming Lin, Ching-Hsuan Yen and Mung-Wei Lin</i>
		12	<b>SB7002</b> <b>Hydroxypropyl Methylcellulose Phthalate as a Corrosion Inhibitor for High-Speed Steel in Acidic Medium</b> <i>Shih-Chen Shi, Chieh-Chang Su</i>
		13	
		14	
		15	<b>C7030</b> <b>Building of the Parameters for Battery Model with Electrochemical Impedance Spectroscopy</b> <i>Van-Tsai Liu, Zong-Da Kan, Tzu-Lun Tseng</i>
		16	<b>E7002</b> <b>The Development of Polycaprolactone (PCL) Micro-carriers with an Emulsification Module by Supersonic Spraying</b> <i>Ying-Chieh Lin, Heng-Sheng Lin, Zheng-Han Hong, Zong-Hsin Liu, Cheng-Tang Pan</i>
		17	<b>E7004</b> <b>Adhesive Optical BCI System with Multiple Pulse Oximetry Module Array</b> <i>Sang-Ho Han, Mun-Ho Ryu</i>
		18	<b>E7005</b> <b>Human Joint Angle Estimation with Multiple-Strip e-Textile Stretching Sensor</b> <i>Sang-Ho Han, Mun-Ho Ryu, Je-Nam Kim</i>
		19	<b>E7006</b> <b>Promoting the Expression of Antibody in E. coli by Antibody Database</b> <i>Shuhei Hattori, Teppei Niide, Hikaru Nakazawa, Ayumi Honda, Mitsuo Umetsu</i>
		20	<b>E7007</b> <b>Can all Bispecific Antibodies Activate T-lymphocyte</b> <i>Aruto Sugiyama, Manon Wayere, Hikaru Nakazawa, Mitsuo Umetsu and Izumi Kumagai</i>

Poster I (Continued)

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	09:00   09:50	21	<b>F7008</b> <b>Prediction of the Concentration of PM10 using a Deep Neural Network</b> <i>Byoung-Doo Oh, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>
		22	<b>F7011</b> <b>Automatic Gazetteer Generation Methods using Recurrent Neural Network and Conditional Random Fields</b> <i>Byeong-Cheol Jo, Hye-Jeong Song, Chan-Young Park, Jong-Dae Kim, Yu-Seop Kim</i>
		23	<b>F7012</b> <b>System Architecture for Integrating Large-scale WSNs and Cloud Computing</b> <i>Tae-Yoon Kim, Jung-Hyok Kwon, and Eui-Jik Kim</i>
		24	<b>F7013</b> <b>Energy Efficient Medium Access Control based on Adaptive Priority in Wireless Body Sensor Networks</b> <i>Dongwan Kim, Daehee Kim, Jung-Hyok Kwon, and Eui-Jik Kim</i>
		25	<b>F7014</b> <b>Integrated Dataset-based Outlier Detection using Cluster Centroid for Healthcare System</b> <i>Sol-Bee Lee, Jung-Hyok Kwon and Eui-Jik Kim</i>
		26	<b>F7015</b> <b>Resource Update Mechanism using Update Assistant for Wireless Sensor Networks</b> <i>Sungmo Kim, Jung-Hyok Kwon, and Eui-Jik Kim</i>
		27	<b>F7016</b> <b>Broker-based Priority Control for Emergency Events of IoT Applications</b> <i>Hwi-Ho Lee, Jung-Hyok Kwon, and Eui-Jik Kim</i>
		28	<b>F7017</b> <b>Parameter Characterization-based Sensor Management for Internet of Things</b> <i>Jung-Hyok Kwon, Minki Cha, Ho-Young Kim, and Eui-Jik Kim</i>
		29	<b>F7018</b> <b>Adaptive Data Acquisition using Unmanned Aerial Vehicle in Wireless Sensor Networks</b> <i>Jung-Hyok Kwon, Hyo Hyun Choi, and Eui-Jik Kim</i>
		30	

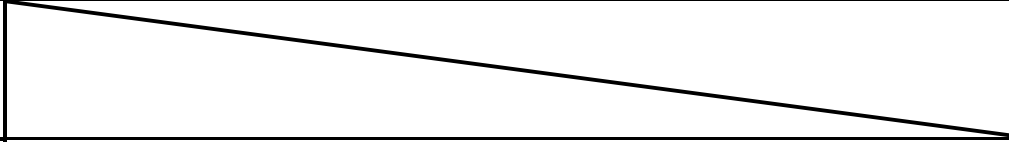
**Poster I (Continued)**

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	09:00   09:50	31	<b>F7026</b> <b>Area-Efficient Syndrome Calculation for Reed-Solomon Decoding</b> <i>YoungJoo Lee, In-Cheol Park, Bang Chul Jung and Hoyoung Yoo</i>
		32	<b>F7030</b> <b>SHVC Tile-based 360 Video Streaming for Mobile VR</b> <i>Jang-Woo Son, Won Yeol Oh, Dae Hee Min, Seon Dae Kim, Eun-Seok Ryu</i>
		33	
		34	<b>F7038</b> <b>Bringing Augmented Reality into Nursing Education: A Pilot Study</b> <i>Hsin-Hsin Lin</i>
		35	<b>F7045</b> <b>Designs of a Recommendation Scheme of the Adoption of Wear Sensing or Image Sensing Devices for Applications of Body Action and Hand Gesture Recognition of the Aged or the Disabled Person</b> <i>Ing-Jr Ding, Rui-Zhi Lin and Zong-Yi Lin</i>
		36	<b>F7046</b> <b>A Hybrid Data Mining Approach for Cardiovascular Disease Detection in Traditional Chinese Medicine</b> <i>Chun-Hui Wu, Ta-Cheng Chen, Yih-Her Yan</i>
		37	
		38	<b>G7006</b> <b>Photoelectrochemical Biofuel Cells for Electric Generation and Hydrogen Production</b> <i>Chun-Ting Liu, Bo-Ching He, Guo-Dung Chen, Ting-Ting Chen</i>
		39	<b>G7007</b> <b>Development of a Mobile Platform for Indoor Geomagnetic Positioning</b> <i>Huang He, Kun Chang, Wei Li, Dong Ha Lee, and Tri Dev Acharya</i>
		40	<b>G7010</b> <b>Determination of Reference Height for Tidal Bench Mark using GPS Buoy Observations</b> <i>Kyung Wan Yoo, In Tae Yang, Ghungcheol Kim and Dong Ha Lee</i>

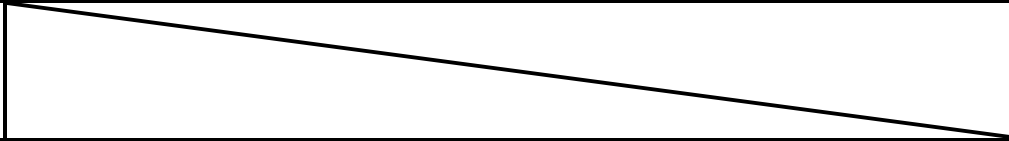
Poster II

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	10:00   10:50	1	<b>G7011</b> <b>Development of Investigation Technique for Real-time Nonpoint Pollution Source using Open Application Programming Interface</b> <i>Kwan Sik Min, Dong Ha Lee</i>
		2	<b>H7001</b> <b>A Deep Learning-based Method for Automatic Digital Recognition in Industrial Panel</b> <i>Chien-Hao Tseng, Lun-Chi Chen, Jyh-Horng Wu, Fang-Pang Lin</i>
		3	<b>J7001</b> <b>Dynamic Analysis of a Slider-Crank Mechanism with Two Sliders and Revolute Clearance Joints</b> <i>Ngoc-Thai Huynh, Shyh-Chour Huang, Thanh-Phong Dao</i>
		4	<b>J7004</b> <b>Improved Stator Teeth Shape Design of Cogging Torque Reduction for Six-Phase Permanent Magnet Brushless Electric Machine</b> <i>Li-Jhen Chen, Hsing-Cheng Yu, and Cheng-Kai Lin</i>
		5	<b>J7005</b> <b>Effect of Residual Shaft Bow on the Dynamic Analysis of a Double-stage Geared Rotor-bearing System with Translational Motion due to Shaft Deformation</b> <i>Ying-Chung Chen</i>
		6	<b>J7008</b> <b>An Integrated Numerical and Experimental Investigation on CPAP Blower</b> <i>Chien-Chung Jeng, Yen-Hsun Lin, Sheam-Chyun Lin, and Che-Wei Chang</i>
		7	<b>J7009</b> <b>Integrated Study on Aerodynamic and Acoustic Characteristics of the Vaneaxial Fan</b> <i>Sheam-Chyun Lin, Yu-Cheng Chen, Wen-Chi Yen, Fu-Yin Wang, Hung-Cheng Yen, Yung-Jen Cheng</i>
		8	<b>J7010</b> <b>Investigation of Helmholtz Resonator Applied on Forward-Curved Centrifugal Fan</b> <i>Sheam-Chyun Lin, Yu-Cheng Chen, Pin-Shiuan Wang, Fu-Yin Wang, Hung-Cheng Yen</i>
		9	<b>J7011</b> <b>Numerical and Experimental Study for a Water-Driven Fan</b> <i>Ming-Chiou Shen, Sheam-Chyun Lin, Chien-Kai Lin, Hung-Cheng Yen, Chun-Hsiang Yang</i>
		10	<b>J7016</b> <b>Numerical Study of the Burner Parameters on the Thermal Field in a Sulfur Recovery Unit Thermal Reactor</b> <i>Chun-Lang Yeh</i>

Poster II (Continued)

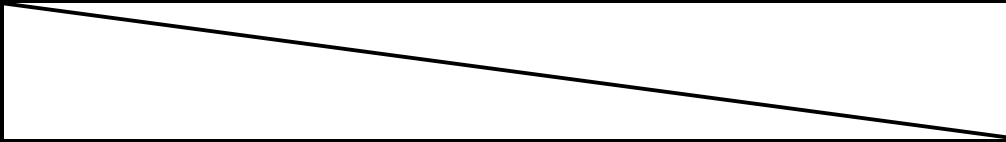
Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	10:00   10:50	11	<b>J7018</b> <b>Experimeantal Study of Adiabatic Two-Phase Flow in Double Narrow Rectangular Channels under Vibration Conditions</b> <i>Yu-Hsien Chang, Shao-Wen Chen, Min-Lun Chai, Hsiao-Jou Lin, Jin-Der Lee, Jong-Rong Wang, Chunkuan Shih</i>
		12	<b>J7020</b> <b>The Systematic Design of Cam-Linkage Polishing Devices With Double-Circle Polishing Traces Part I: The Innovative Design</b> <i>Long-Chang Hsieh, Tzu-Hsia Chen</i>
		13	<b>J7021</b> <b>The Systematic Design of Cam-Linkage Polishing Devices With Double-Circle Polishing Traces Part II: The kinematic Design and Prototype Verification</b> <i>Long-Chang Hsieh, Tzu-Hsia Chen</i>
		14	<b>J7022</b> <b>New Design of Grab Mechanism in Plastic Glove Machine</b> <i>Wei-Chun Hsu, Ming-Jin Jiang, Gui-Liang Liu</i>
		15	<b>J7026</b> <b>A Study on the Derailment of Safety of Rolling Stock due to Cyclical Crosswind</b> <i>Hoon-Hee Han, Jun-Woo Kim, Jeong-Seo Koo, Jae-Seok Shim</i>
		16	<b>K7003</b> <b>Automatic Calibration System for the Counting Efficiency of Liquid-borne Nanoparticle Counters</b> <i>Han-Fu Weng, Sheng-Hann Wang</i>
		17	<b>L7002</b> <b>Molecular Characterization, Overexpression and Comparison of Esterases from Moderately Thermophilic and Mesophilic Bacteria</b> <i>Yu-Pei Chen, Shu-Shan Liang, Ing-Er Hwang, Mei-Chih Chien, Guey-Horng Wang and Li-Ling Liaw</i>
		18	<b>L7003</b> <b>Development and Evaluation of Shoes Type Walking Assistive Device for Visually Impaired Person</b> <i>Chang-Min Yang, Ji-Yong Jung, Jung-Ja Kim</i>
		19	
		20	<b>M7002</b> <b>Study on Relationship Between Project Management and Organizational Efficacy in Nonprofit Organizations</b> <i>I-Chan Kao</i>

Poster II (Continued)

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	10:00   10:50	21	<b>N7002</b> <b>A Generalized Museum Visitor Routing Problem with the Consideration of Preference and Congestion for Multiple Groups</b> <i>Yi-Chih Hsieh</i>
		22	<b>N7003</b> <b>Modified Viterbi Scoring Algorithm For HMM-based Speech Recognition</b> <i>Jihyuck Jo, Han-Gyu Kim, In-Cheol Park, Bang Chul Jung and Hoyoung Yoo</i>
		23	<b>O7004</b> <b>Study on Adult Career Planning on Adult Education Program and Assessment of Adaptive Design Model</b> <i>I-Chan Kao</i>
		24	<b>O7005</b> <b>Study on Elderly Learners' needs and Obstacles in Network Learning by "3C products"</b> <i>I-Chan Kao</i>
		25	<b>O7010</b> <b>Advanced Technique for In-line Measurement of Critical Dimension by Transmission Small Angle X-ray Scattering</b> <i>Guo-Dung Chen, Chun-Ting Liu, Bo-Ching He</i>
		26	<b>O7015</b> <b>A Method to Detect Abnormal GPS Satellite using Ionospheric Delay Measurements</b> <i>Kwang-Ho Choi, Joon-Hoo Lim, Hyung-Keun Lee</i>
		27	<b>SA7004</b> <b>Acute Effects of Sling Exercise Recovery with Whole body Vibration Resting Muscle Function and Blood of Lactate</b> <i>Jh-Hwan Oh, Tae-Kyu Kwon</i>
		28	
		29	<b>SA7010</b> <b>Nonlinear Behavior Analysis of Double-Clamped Nano-Beam with Casimir and van der Waals Effects</b> <i>Chin-Chia Liu</i>
		30	<b>SA7014</b> <b>Antiknock Performance Evaluation of Slabs of Concrete-faced Rockfill Dams Subjected to Strong Shock Waves Caused by an Underwater Explosion: Case study of the World's Highest CFRD: the Shuibuya Dam</b> <i>Lu Lu, Ye Zhu, De-Gao Zou, Yun Dong, Chun-Yuan Zou, Jing Zhao</i>



Poster II (Continued)

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	10:00   10:50	31	<b>SA7015</b> <b>On-site Attenuation Experiments and Analysis of the Vibration Source Induced by Rail Vehicles</b> <i>Wei-Sen Li, Siao-Syun Ke, Chung-Sheng Lee</i>
		32	<b>SB7007</b> <b>Electrochemical and Mechanical Properties of TiAl Intermetallic Alloy with Different Alloy Contents</b> <i>Tao-Hsing Chen, Ting-Yang Tseng</i>
		33	<b>SB7008</b> <b>Integrated Assessment for Meteorological and Hydrological Drought of Southern Taiwan</b> <i>Hsin-Fu Yeh, Kai-Yin Lo, Jhe-Wei Lee</i>
		34	<b>SD7002</b> <b>Polymer Blend effect on Mechanical Properties of Wood-Plastic Composites under Environmental Ageing</b> <i>Chin-Hsing Chen, Chin-Lung Chiang, Wei-Jen Chen and Ming-Yuan Shen</i>
		35	<b>SD7003</b> <b>Characterization and Properties of Modified GNPs / XNBR Nanocomposites</b> <i>Chen-Feng Kuan, Chin-Lung Chiang, Su-Hsia Lin, Wei-Guo Huang, Wen-Yen,hsieh and Ming-Yuan Shen</i>
		36	<b>SD7005</b> <b>Combined Temperature and Moisture Effect on the Monotonic and Fatigue Strengths of Sandwich Beams with Glass-Polypropylene Faces and Aluminum Foam Cores</b> <i>Yi-Ming Jen, Chia-Wei Chang</i>
		37	<b>SD7009</b> <b>Design and Simulation Analysis of Lightweight HDPE Milk Bottle</b> <i>Hsing-Hui Huang, Li-Wen Chen, Wei-Hua Lu, Wei-Cheng Lin and Yung-Chuan Chen</i>
		38	<b>SR7008</b> <b>A Software Defined Sensor Network Architecture for Radio Spectrum Monitoring Systems</b> <i>Yih-Chuan Lin, Zhe-Sheng Shih</i>
		39	
		40	<b>SF7002</b> <b>Optimal Power Allocation and Allowable Interference Shaping in Cognitive Radio Networks</b> <i>Hyang-Won Lee, Woohyuk Chang, and Bang Chul Jung</i>

Poster III

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	11:00   11:50	1	<b>G7018</b> <b>Noise Barrier Installation Technique on Highway Route No. 9</b> <i>Chaddanai Jiradecha, Kritsanat Surakit, and Pruethipong Singhatiraj</i>
		2	<b>SG7003</b> <b>New Fabrication Process of Silicon-Nanowire for Inertial Sensors</b> <i>Seohyeong Jang, Hun Lee, Jong Yoon Shin, Hyung Jung Yoo, and Dong-Il “Dan” Cho</i>
		3	<b>SG7005</b> <b>A Low Noise Reconfigurable 12-to-16-bit Delta-Sigma Capacitance-to-Digital Converter with Chopper Stabilization Technique</b> <i>Byeoncheol Lee, Hyungseup Kim, Youngwoon Ko, Yeongjin Mun and Hyoungho Ko</i>
		4	<b>SG7006</b> <b>A 1.23 pJ/Conversion-Step Energy-Efficient 16-bit SAR Capacitance-to-Digital Converter in 0.18 <math>\mu</math>m CMOS Process</b> <i>Youngwoon Ko, Hyungseup Kim, Yeongjin Mun, Byeoncheol Lee, and Hyoungho Ko</i>
		5	<b>SG7007</b> <b>Analysis on Tidal Channels based on UAV Photogrammetry: Focused on the West Coast, South Korea Case Analysis</b> <i>Jae Kang Lee, Jeong Ok Kim</i>
		6	<b>SZ7003</b> <b>In-line Inspection of Surface Feature and Defect</b> <i>Ruifang Ye, Chia-Sheng Pan, Ming Chang</i>
		7	<b>SG7009</b> <b>Plastic Optical Fiber Respiration Sensor Based on In-Fiber Microholes</b> <i>Young June Park, Jong-Dug Shin, Jaehee Park</i>
		8	<b>SG7012</b> <b>Measurement of Electron Beams Induced Emission Signals Generated in Silica Optical Fibers</b> <i>Kyoung Won Jang, Sang Hun Shin, Wook Jae Yoo, Bongsoo Lee</i>
		9	<b>SR7009</b> <b>A Novel Multi-signature Scheme Based on Chaotic Maps</b> <i>Kai Chain, Wen-Chung Kuo</i>
		10	<b>F7036</b> <b>Non-contact estimation of the strength of human nasal airflow by using Far Infrared Imaging</b> <i>Dai Hanawa, Ryohei Takatori, Kimi Oguchi</i>

Poster III (Continued)

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	11:00   11:50	11	<b>SH7003</b> <b>Implementation a Smart Air Quality Monitoring and Alarm System</b> <i>Yui-Wei Wu, Hsiu-Lin Chen, Jia-Shing Sheu</i>
		12	<b>SH7004</b> <b>Processing and Isolating Text Information on Business Card</b> <i>Ting-Shu Lin, Jia-Shing Sheu</i>
		13	<b>SH7005</b> <b>An Efficient Overlap Fingerprint Feature Identification Method based on Multiple Filter Set and SVM Classifiers</b> <i>Yen-Lin Chen, Chia-Ming Liu, Chao-Wei Yu, and Yi-Pin Hsu</i>
		14	<b>SH7006</b> <b>Improved Low Resolution Finger-Vein Image in Wavelet Domain</b> <i>Chih-Hsien Hsia</i>
		15	<b>SL7004</b> <b>Structural Performance Evaluation of a Tempered Glass Guard and Handrail System</b> <i>Seonwoong Kim</i>
		16	<b>SI7004</b> <b>Development of a Data-driven ANFIS Model by using PSO-LSE Method for Nonlinear System Identification</b> <i>Ching-Yi Chen and Yi-Jen Lin</i>
		17	<b>SI7006</b> <b>Hardware Design of Codebook-based Moving Object Detecting Method for Dynamic Gesture Recognition</b> <i>Ching-Han Chen, Ching-Yi Chen, and Nai-Yuan Liu</i>
		18	<b>G7003</b> <b>Performance Evaluation of Permeability Cold Recycled Asphalt Using MMA Resin</b> <i>Jong-Won Lee, Hyo-Jin Cho, Jun-Young Bae, Young-Il Jang</i>
		19	<b>SK7002</b> <b>Recent Trend in Bicycle Inner Transmission Hubs</b> <i>Yi-Chang Wu, Meng-Yu Shieh</i>
		20	<b>SK7003</b> <b>Design of a Coaxial Magnetic Gear with an Integrated Brushless Permanent-Magnet Motors used for Electric Power Tools</b> <i>Yi-Chang Wu, Chin-Tsung Chan</i>

Poster III (Continued)

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	11:00   11:50	21	<b>SK7004</b> <b>A Modular Multi-Speed Inner Transmission for Medical Aids</b> <i>Yi-Chang Wu, Tsung-Yi Lin, Zi-Wei Kuo</i>
		22	<b>SK7005</b> <b>A New Type of Multi-degrees of Freedom Piezoelectric Motor</b> <i>Shyang-Jye Chang, Jing-Yuan Lin</i>
		23	<b>SK7006</b> <b>Structural Analyses of Wooden Pin Tumbler Locks in Ancient China</b> <i>Kuo-Hung Hsiao, Wen-Yi Xiong</i>
		24	<b>SL7005</b> <b>Seismic Performance Evaluation of Highrise Steel Buildings According to Exposures</b> <i>Seonwoong Kim</i>
		25	
		26	
		27	<b>SL7008</b> <b>The use of Wavelet Shrinkage to Reduce the Multipath Effect in a GNSS based Bridge Health Monitoring System</b> <i>Jae Kang Lee, Jeong Ok Kim</i>
		28	<b>SL7009</b> <b>A Study on the UAV Image-Based Efficiency Improvement of Bridge Maintenance and Inspection</b> <i>Jae Kang Lee, Jeong Ok Kim</i>
		29	<b>SR7002</b> <b>On the Resource Utilization of M2M Group Communication in Cellular Networks</b> <i>Eunmi Chu and Bang Chul Jung</i>
		30	<b>SR7004</b> <b>Research on the Smartphone APP with Functions of Earthquake Double-Checking and Sufferer Location Tracking</b> <i>Chuen-Ching Wang</i>

Poster III (Continued)

Date	Time	No.	4F Hallway
28 <sup>th</sup> Oct. (Sat.)	11:00   11:50	31	<b>SS7006</b> <b>Niche Genetic Algorithm for Solving the Multiplicity Problems of Genetic Feature Selections</b> <i>Chiu-Hung Chen, Wen-Hsien Ho</i>
		32	<b>SS7010</b> <b>Evolutionary Algorithm in Adaptive Neuro-Fuzzy Inference System for Modeling Growth of Foodborne Fungi</b> <i>Jinn-Tsong Tsai, Wen-Hsien Ho</i>
		33	<b>SS7011</b> <b>Gaussian Function-based Model with Improved Genetic Algorithm for Optimized P-wave Morphology in Electrocardiograms for Atrial Fibrillation Patients</b> <i>Yiu-Jen Chang, Wei-Hua Tang, Wen-Hsien Ho</i>
		34	<b>SS7012</b> <b>Behavioral Intention and Performance Expectations for Health-Related Information Acquisition and Sharing on Social Networking Sites</b> <i>Hsien-Cheng Lin, Yao-Mei Chen, Wen-Hsien Ho</i>
		35	<b>SS7013</b> <b>Patient-specific Hemodynamics from Noisy Sounds of Heart and Lung</b> <i>Yenming J. Chen</i>
		36	<b>SS7014</b> <b>Side Effect Assessment of Urinary Tract Infections for Patients Receiving Dapagliflozin</b> <i>Pei-Chun Chen, Su-han Hsu, Yenming J. Chen</i>
		37	<b>SS7015</b> <b>Bayesian Approach in Patient's Admission Condition Stratification</b> <i>Yenming J. Chen, Kuan-Shan Chen, Wei-Hsiu Liu</i>
		38	<b>SS7016</b> <b>Remote Temperature and Humidity Monitoring Device for Wheelchair Cushion</b> <i>Yu-Sheng Yang, Cheng-Tang Pan, Wen-Hsien Ho</i>
		39	<b>SSA7001</b> <b>A Simplified Analytic Method for Flow-induced Vibration Response of Hydraulic Structure Caused by Flow Fluctuation</b> <i>Ya-Chao Wu, Ye Zhu, Lu Lu, Qin-Man Fan, Yun Dong, Chun-Yuan Zuo</i>
		40	<b>SSD7005</b> <b>An Efficient Methodology based on Fuzzy Decision for Dental Shade Matching</b> <i>Chien-Hui Chuang, Hui-Wen Liu, Tzu-Yi Liao, Nung-Hsiang Lin, Ting-Lan Lin, Shaou-Gang Miaou, Szu-Yin Lin, and Shih-Lun Chen</i>

Poster IV

Date	Time	No.	4F Hallway
29 <sup>th</sup> Oct. (Sun.)	09:00   09:50	1	<b>SSD7006</b> <b>A Reconfigurable SOPC for Rapid Hardware Synthesis of Robot Controller</b> <i>Ching-Han Chen and Ching-Yi Chen</i>
		2	<b>SSD7010</b> <b>Document Image Enhancement System</b> <i>Chih-Hsien Hsia</i>
		3	<b>ST7002</b> <b>GPS Sensor Interference Suppression Using Modified Affine Projection Method</b> <i>Wei-Lung Mao, Chung-Wen Hung, Shi-De Ye, Guan-You Liu</i>
		4	<b>ST7008</b> <b>The Control System for Plate Type Catalytic Reduction Performance Analysis with Automatic Blending</b> <i>Ming-Sen Hu, Liang-Hsiu Chen</i>
		5	<b>SU7003</b> <b>Fuzzy Optimization based on Mixed-Integer Memetic Algorithm</b> <i>Yung-Chin Lin, Yung-Chien Lin</i>
		6	<b>SU7004</b> <b>The Design and Implementation of Intelligent Lighting System Based on Arduino and App Inventor</b> <i>Yung-Chien Lin, Yung-Chin Lin</i>
		7	<b>SV7002</b> <b>Effect of Clean Solution on Electrical Characteristics and Reliability for Dense and Porous Low Dielectric Constant Materials</b> <i>Yi-Lung Cheng, Chi-Jia Huang, Chih-Yen Lee, Giin-Shan Chen, and Jau-Shiung Fang</i>
		8	<b>SV7003</b> <b>Improving Electrical Characteristics of Thin-film Metal-electrode Substrates with Adhesion Layer during Folding Test</b> <i>Bor-Jiunn Wen, Pen-Cheng Wang, Tung-Yuan Lee, Pin-Hsuan Hung, Heng-Yin Chen</i>
		9	<b>SV7004</b> <b>Material Characteristic Effect of Wafer Level Underfill on the Microbump Reliability of Ultra-Thin-Chip Stacking Type 3D-IC Assembly during Thermal Cycling Tests</b> <i>Chang-Chun Lee</i>
		10	<b>SV7005</b> <b>Redistributed Geometrical Effect of Cu-Filled Stacked Vias on the Thermal-Induced Stress and Warpage of 3D-ICs Embedded Interposer</b> <i>Chang-Chun Lee, Jing-Yan He, Pei-Chen Huang</i>

Poster IV (Continued)

Date	Time	No.	4F Hallway
29 <sup>th</sup> Oct. (Sun.)	09:00   09:50	11	<b>SV7006</b> <b>The Study of Pool Boiling Heat Transfer on Anodic Aluminum Oxide Surfaces</b> <i>Wen-Shih Lin, Shih-Hsun Chen, Tsung-Chieh Cheng</i>
		12	
		13	<b>SW7003</b> <b>Design of Inspection System for Drilling Holes in Carbon Fiber Reinforced Plastics (CFRP)</b> <i>Hyo-Young Kim, Chang-Hoon Seo, Moon-Gu Lee, Su-Geun Shin, Seok-Woo Lee</i>
		14	<b>SW7006</b> <b>Development of Advertising Accessory with Light Guide for Mobile Devices</b> <i>Kihyun Kim, Hyo-Young Kim, Je-Heon Han</i>
		15	<b>SW7007</b> <b>Deformation Analysis of Flexible Substrate by Finite Element Analysis</b> <i>You-Sung Kang, Moon G. Lee, Dongwoo Kang</i>
		16	<b>SX7002</b> <b>A Dynamic Pricing Model for Balancing Bike Sharing Systems</b> <i>Peng-Sheng You</i>
		17	<b>SX7004</b> <b>Comparative Study on Electrical Characteristics of (111) and (100) Silicon Nanowire Transistors Using Quantitative Current Model</b> <i>Yeok In Choi, Sangmin Lee</i>
		18	<b>SX7008</b> <b>Meta-Evolutionary Computation Approach for Nonlinear Constrained Signal Detectors Allocation Problems</b> <i>Ta-Cheng Chen, Sheng-Chuan Wang, Chun-Hui Wu, Ke-Wei Huang</i>
		19	<b>SX7011</b> <b>Modeling and Quantitative Design of a Controller for a Bidirectional Converter with High Voltage Conversion Ratio</b> <i>Kuei-Hsiang Chao, Hong-Jhih Chen</i>
		20	<b>SX7015</b> <b>Multi-Objective Competitive Location Problem with Cooperative-Covering for Distance-based Attractiveness</b> <i>Sheng-Chuan Wang, Ta-Cheng Chen</i>

Poster IV (Continued)

Date	Time	No.	4F Hallway
29 <sup>th</sup> Oct. (Sun.)	09:00   09:50	21	<b>SZ7001</b> <b>164 nW Inverter-based Capacitive Readout IC for Microaccelerometer</b> <i>Youngwoon Ko, Hyungseup Kim, Yeongjin Mun, Byeoncheol Lee and Hyoungho Ko</i>
		22	<b>SZ7002</b> <b>Modeling and Simulation of Mass-Sensitive Oscillator based on AlN Piezoelectric Microresonator in Liquid Media</b> <i>Hyungseup Kim, Youngwoon Ko, Yeongjin Mun, Byeoncheol Lee, Yi-Gyeong Kim, Hyunjoong Lee, Yil Suk Yang, Chang Han Je, Woo Seok Yang and Hyoungho Ko</i>
		23	<b>SR7007</b> <b>The Enhanced Confidentiality with Chaos/binary Mapping Algorithm for Secure Video Transmission in WDM Network</b> <i>Yao-Tang Chang, Yih-Chuan Lin and Wei-Hsiang Wang</i>
		24	<b>SZ7005</b> <b>An Integrated Gas Microsensor by Doping Metal Oxides to Tin Dioxides for Detecting Multiple Gases</b> <i>Hsing-Cheng Chang, Yu-Liang Hsu, Ya-Hui Chen, Tai-Jiun Guo</i>
		25	<b>WA7001</b> <b>Correlation Analysis of BioMedical Entities using Word Embedding</b> <i>Byeong-Hun Yoon, Young-Shin Yoon, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>
		26	<b>WA7004</b> <b>Left Truncation Criteria for Survival Analysis of Urothelial Transitional Cell Carcinoma on Renal Disease Patients with Maintenance Hemodialysis</b> <i>Yi-Horng Lai</i>
		27	<b>WB7003</b> <b>Effects of Short-term Sling Exercise with Whole Body Vibration Recovery Method on Heart Rate, Blood Pressure and Lactate Acid Level Variability</b> <i>Jh-Hwan Oh, Tae-Kyu Kwon</i>
		28	<b>WB7004</b> <b>Variations of Kinematic and Kinetic Patterns in Elderly Gait by Achilles Tendon Vibratory Stimulation</b> <i>Kiyoung Kwak, Huigyun Kim, Seunghun Ko, Dongwook Kim</i>
		29	<b>WC7001</b> <b>Application of low-cost ZigBee Real-time Monitoring System that can be Constructed Swiftly on Demand to ICU Monitoring</b> <i>Ke-Feng Lin, Shih-Sung Lin, Min-Hsiung Hung, Chung-Hsien Kuo, Ping-Nan Chen</i>
		30	<b>WC7003</b> <b>Effects of Local Vibration Applied to Lower Limb in Elderly on the Amplitude of Somatosensory Evoked Potentials</b> <i>Huigyun Kim, Kiyoung Kwak, Jaeseong Kim, Dongwook Kim</i>



Poster IV (Continued)

Date	Time	No.	4F Hallway
29 <sup>th</sup> Oct. (Sun.)	09:00   09:50	31	<b>WC7004</b> <b>The Pilot Study of Health Care Management Systems for Premature Infants</b> <i>Mei-Hua Wang, Yu-Wen Fang, Chien-Tsai Liu</i>
		32	<b>WC7008</b> <b>Stem Cells Processing for Repairing Brain Function After Stroke</b> <i>Po-Cheng Lin, Chao-liang Chang, Wan-Sin Syu, Ming-Hsi Chuang</i>
		33	<b>WC7009</b> <b>The Effect of Stem Cells Treatment on Traumatic Brain Injury Rats</b> <i>Kai-Ling Zhang, Yung-Hsiao Chiang, Ming-Hsi Chuang</i>
		34	<b>WC7010</b> <b>To Investigate the Feasibility of Adult Stem Cells in the Treatment of Periodontal Bone Defect</b> <i>Yii-Hsiu Chen, Hsiao-Pei Tu, Ming-Hsi Chuang, Chao-Liang Chang, Chun-Hung Chen</i>
		35	<b>WD7001</b> <b>Component Selection by Aging Comparison for Polymerase Chain Reaction Thermal Cycler</b> <i>Mi-So Lee, Chan-Young Park, Yu-Seop Kim, Hye-Jeong Song, and Jong-Dae Kim</i>
		36	<b>WD7002</b> <b>User-Friendly Interface for Electrical Cell-substrate Impedance Spectroscopy System</b> <i>Sang-Oh Park, Chan-Young Park, Hye-Jeong Song, Yu-Seop Kim, Jongwon Kim, Won-kyun Im, Sung Ho Jeon and Jong-Dae Kim</i>
		37	<b>WD7003</b> <b>Electrode Structure for Electrochemical Impedance Measurement Deviation Reduction</b> <i>Ji-Seong Park, Chan-Young Park, Yu-Seop Kim, Hye-Jeong Song, and Jong-Dae Kim</i>
		38	<b>WD7004</b> <b>A Study of PCR Control via Cloud Using FCM</b> <i>So-Yeon Lee, Jong-Dae Kim, Yu-Seop Kim, Hye-Jeong Song, Ah-Reum Park, and Chan-Young Park</i>
		39	<b>WD7005</b> <b>Emulation Test of the Integrated Polymerase Chain Reaction Chip</b> <i>Ji-Soo Hwang, Yeo-Reum Kim, Dong-Geon Jo, Jong-Dae Kim, Yu-Seop Kim, Hye-Jeong Song, Doohee Jeong and Chan-Young Park</i>
		40	<b>WD7006</b> <b>Control the PCR Instrument through Cloud Using COAP</b> <i>Jeong-Uk Park, Jong-Dae Kim, Hye-Jeong Song, Yu-Seop Kim, Inyoung Kim and Chan-Young Park</i>

Poster V

Date	Time	No.	4F Hallway
29 <sup>th</sup> Oct. (Sun.)	10:00   10:50	1	<b>WD7010</b> <b>A Microfluidic Device Platform with Nano-and mcicro-structures for Cell-trapping Application</b> <i>Shih-Chi Chan, Chi-Huang Huang, Tien-Li Chang, Chun-Ting Hsiao, Cheng-Ying Chou, Kai-Che Liu, Shih-Wei Huang, Ching-Hao Li</i>
		2	<b>WD7011</b> <b>A Biomaterial Storage Device with Automated Access Function</b> <i>Ming-Hsi Chuang, Po-Cheng Lin, Wen-Peng Shen</i>
		3	<b>WD7012</b> <b>A Simple Method for Removing Initial Irregularity of an Electrocardiogram during a Transient State of a Power Supply in Defibrillator</b> <i>Jeong-Han Yi, Young-Jae Bang, Hyung-Sik Kim</i>
		4	<b>L7004</b> <b>Effect of Relative Humidity on Adsorption Breakthrough of CO<sub>2</sub> on Activated Carbon Fibers</b> <i>Yu-Chun Chiang, Yu-Jen Chen, and Cheng-Yen Wu</i>
		5	<b>TA7010</b> <b>Influences of Ground Motion Parameters on the Seismic Responses of Anchored Bedding Rock Slope</b> <i>Ningbo Peng, Yun Dong</i>
		6	<b>F7025</b> <b>Lung nodule detection using ensemble classifier in CT images</b> <i>Chien-Cheng Lee, Shuo-Ting Tsai</i>
		7	<b>C7031</b> <b>A Multi-Task Learning Network for Handwritten Numeral Recognition</b> <i>Jinhui Hou, Huanqiang Zeng, Lei Cai, Jianqing Zhu, Jing Chen, Canhui Cai</i>
		8	<b>SL7001</b> <b>Efficient First-Order Plastic Hinge Analysis Based on the Generalized Finite Element Method</b> <i>Sung-Gul Hong, Yousun Yi, Hongjun Son, Dae-Jin Kim</i>
		9	<b>SL7002</b> <b>Structural Performance of a New Steel Frame Modular Beam-Column Connection under Lateral Loading</b> <i>Bong-Ho Cho, Jae-Sub Lee, Taehyu Ha, Ji-Eun Jung, Dae-Jin Kim</i>
		10	<b>SL7003</b> <b>Push-out Test and Analysis of Steel Pile Caps Strengthened with Perfobond Shear Connectors</b> <i>Hong Chul Rhim, Young Ho Kim, Jeongwook Yoo, Dae-Jin Kim</i>

**Poster V (Continued)**

Date	Time	No.	4F Hallway
29 <sup>th</sup> Oct. (Sun.)	10:00   10:50	11	<b>SSD7011</b> <b>A Transfer Learning Algorithm for Automatic Requirement Model Generation</b> <i>Yan Kang, Hao Li, Chenyang Lu and Bin Pu</i>
		12	<b>SG7008</b> <b>Using SONOS Device Under PVS as UV TID Nonvolatile Radiation Sensor</b> <i>Wen-Ching Hsieh, Fuh-Cheng Jong, Hao-Tien Daniel Lee, Shich-Chuan Wu and Zeng-Wei Ting</i>
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