Session A1 (6F – Yue)			
Date	Time	O. Other Engineering and Technology related topics Session Chair : Prof. Jian Jiao	
	08:00~08:15	O9001 A Deep Convolution Neural Networks Based Automated Testing Framework: Using Game Testing as a Case Study Yen-Hung Chen	
	08:15~08:30	O9002 Analysis of the Influencing Factors of University Laboratory Safety Based on Grey Correlation <i>Lili Chen</i>	
	08:30~08:45	O9012 Development of an Affordable and High-Fidelity Flight Simulation Training Device Lung-Nan Wu	
	08:45~09:00	O9013 Performance-Threshold-Based Resilience Analysis of System-of-Systems by Considering Dynamic Reconfiguration <i>Zhiwei Chen, Tingdi Zhao, Jian Jiao</i>	
16 th Nov. (Sat.)	09:00~09:15	O9014 Exploring the Key Success Factors of Selecting Green Reverse Logistics Service Providers Shu-Hua Taso, Lu Yang, Shih-Ming Ou	
	09:15~09:30	O9015 Low-Carbon Literacy among Tourism Practitioners: Scale Development and Dimensional Measurement <i>Chaojun Li, Kuo-Kuang Chang, Shih-Ming Ou</i>	
	09:30~09:45	O9016 Analysis on the Competitiveness of Green Suppliers in a Supply Chain <i>Shu-Hua Taso, Wenru Chen, Shih-Ming Ou</i>	
	09:45~10:00	O9019 Man-Machine System Modeling and Safety Analysis for Landing Process Based on SysML Yuan Yuan, Jian Jiao, Hongqing Xia, Mengwei Wei	
	10:00~10:15	O9020 Risk Quantification and Analysis of Coupled Factors Based on DEMATEL and BN Mengwei Wei, Jian Jiao, Yuan Yuan, Tingdi Zhao	



Session B	Time	SY. Recent Advances in Surveying and Geomatics Engineering
Date		Session Chair : Prof. Dong-Ha Lee ; Prof. Myeong-Hun Jeong
	08:00~08:15	SY9001 Visual Odometry Implementation and Accuracy Evaluation Based on RTAB-MAP Bo Hu, He Huang
	08:15~08:30	SY9002 An Improved Quick Camera Calibration Method for Image Measurement System Yizhou Xue, He Huang, Dean Luo
	08:30~08:45	SY9003 Spatiotemporal Changes of Riverbed and Surrounding Environment in Beijing Section of Yongding River during the Past Half Century <i>Ran Pang, He Huang, Tri Dev Acharya</i>
	08:45~09:00	SY9007 A Study on the Implementation of Digital Twin Outdoor Based on UAV Yoon-Seuk Oh, Jung-Ok Kim, Seong-Jin Park, Jae-Kang Lee
16 th Nov. (Sat.)	09:00~09:15	SY9010 Real-Time Prediction Modeling for Filtration Process Control of Water Treatment Process <i>Sang-Hyuk Park, Jin-Woo Cho</i>
	09:15~09:30	SY9015 A Study on Debris Flow Hazard Mapping Method Using SINMAP and FLO-2D Model Tae-Yun Kim, Hong-Sik Yun, Seung-Jun Lee
	09:30~09:45	SY9016 Efficient Data Depth Clustering Algorithm with Spark Myeong-Hun Jeong, Tae-Young Lee, Dong-Ha Lee
	09:45~10:00	SY9017 Vessel Trajectory Reconstruction Based on the Data Depth of Automatic Identification System Data Myeong-Hun Jeong, Seung-Bae Jeon, Dong-Ha Lee
	10:00~10:15	SY9019 Spectral Response of Landsat OLI Bands for Different Water Bodies in Nepal Tri Dev Acharya, He Huang, Hyung-Joon Kim, Kwan-Sik Min, Dong-Ha Lee

Session C1 (7F – Mencius)

Date	Time	A. Materials Engineering ; F. Computer & Information Engineering ; TA. Civil & Structure Engineering ; TC. Recent Advances in Artificial Intelligence and Internet of Things Session Chair : Prof. Sergey Shevtsov ; Dr. Florentina Pungky Pramesti
16 th Nov. (Sat.)	08:00~08:15	F9016 A Detection Platform for iOS Applications <i>Zhen-Yu Qiu, Wen-Chung Kuo, Chun-Cheng Wang</i>
	08:15~08:30	A9008 On the Directivity of Lamb Waves Generated by the Wedge PZT Actuator in Thin CFRP Panel Maria Shevtsova, Evgenia Kirillova, Evgeny Rozhkov, Shun-Hsyung Chang, Jiing-Kae Wu, Valery Chebanenko, Sergey Shevtsov
	08:30~08:45	STC9001 Human Activity Recognition Using Deep-Learning LSTM Networks for Wearable Devices Yeong-Lin Lai, Cheng-Hsien Chen
	08:45~09:00	A9011 Evaluating Asphalt Fatigue Failure by means of Dynamic Stress Controlled Test Florentina Pungky Pramesti, Han Aylie, Ary Setyawan
	09:00~09:15	A9013 The Precision Measurement of Drilling Depth in Surgical Operation Gan Cheng, Fangyi You
	09:15~09:30	H9001 Resin Infusion Process for Large CFRP Panel: Experiment and FE Simulation Jyun-Ping Huang, Shun-Hsiung Chang, Igor Zhilyaev, Ilya Tarasov, Sergey Shevtsov, Natalia Snezhina
	09:30~09:45	STC9002 Intelligent Blockchain IoT Systems Yeong-Lin Lai, Chin-We Huang, Kai-Han Yang
	09:45~10:00	STC9003 An Air Quality Monitoring Auto-Navigated Drone Yeong-Lin Lai, Li-Cheng Lan, Chin-We Huang, Kai-Han Yang
	10:00~10:15	TA9004 An Approach to the Dynamic Measurement of Weld Toe Cyclic Strains of Cruciform Joint Using Fiber Bragg Gratings Guo-Qian Wei, Shan-Shan Li, Yong-Xing Guo, Zhang Dang



Session A2 $(\mathbf{0F} - \mathbf{Y}\mathbf{ue})$		
Date	Time	B. Mechatronic and Robotics Engineering ; O. Other Engineering and Technology related topics ; SO. Recent Innovations and Applications in Imaging Technology and Fingerprint Processing Session Chair : Prof. Jia-Shing Sheu
16 th Nov. (Sat.)	10:30~10:45	O9022 Vulnerability Analysis of Agricultural Products Cold Chain Logistics: A Perspective of Carbon Footprint Rongxia Zhou, Shih-Ming Ou
	10:45~11:00	O9023 Dynamic Analysis of Co-Opetition between Fujian and Shanghai Free Trade Areas Bin Chen, Shih-Ming Ou
	11:00~11:15	O9024 Based on Love-Lock Model to Improve Logistics Information Service Quality by Using DEMATEL Bin Chen
	11:15~11:30	O9025 Research on the Factors Influencing Regional Tourism Cooperation: Changsha-Zhuzhou-Xiangtan Case Chaojun Li, Kuo-Kuang Chang, Shih-Ming Ou
	11:30~11:45	O9026 Dynamic Evaluation of Tourism Resources of Seven Star Grotto National Park in Zhaoqing Chaojun Li, Kuo-Kuang Chang, Shih-Ming Ou
	11:45~12:00	SO9002 Traffic Prediction of Long Tunnel Using CNN and LSTM Ming-Chih Chou, Jia-Shing Sheu
	12:00~12:15	B9002 A Closed Loop Detection Method for LIDAR SLAM with Light Calibration Information Yong Zeng, Qiang Wang, Yin-Kang Zou

Session B2 (7F - Analects of Confucious)		
Date	Time	M. Innovation Management ; ST. Mechanism and Machine Design ; H. Industry 4.0 & Automation Engineering
		Session Chair : Prof. Chien-Jen Hung ; Prof. Teng-Chu Chiu
		M9004
	10:30~10:45	Research on Intention to Use the Intelligent Household Equipment Based
	10.50 10.15	on TAM
		Chien-Jen Hung, Tsu-Hui Hung
		M9005
		The Feasibility of Study on the Interior Design Diagrams in Analyses
	10:45~11:00	Model Corresponding to the Open Interiors Competitive Assessment 's
		Professional Courses
		Ruey-Ming Shih, Tzu-Hsuan Kuo
		M9007
		A Study on Constructing the Evaluation Index of Japanese
	11:00~11:15	Teachers'Foreign Language Teaching in Colleges and Universities by
		Fuzzy Delphi Method
		Tzu-Hsuan Kuo, Chien-Jen Hung, Ruey-Ming Shin, Hung-Chun Ou
16 th Nov.		M9009
(Sat.)	11:15~11:30	A Comparative Study of Team Effectiveness under Different Leadership
		Styles in IT Services: The Mediating role of Sharing Communication and
		Team Commitment
		Teng-Chu Chiu
		M9010
	11:30~11:45	Integrating the Definition, Meaning and Realm of Humility in Leadership:
	11.30~11:43	Chinese and Western Perspectives
		Teng-Chu Chiu
	11:45~12:00	ST9006
		Three-Phase Full-Wave Rectifier Technology for Reducing Current
		Imbalance at Rail Traction Substation
		Wan-Tsun Tseng, Wei-Ru Lin, Ji-Li Zhan, Chun-Yen Chang
		H9008
0.~	12:00~12:15	Cyber-Physical Hybrid Optimization System for CNC Milling Process
		Shih-Ming Wang, Tsooj Sambaljamts, Hariyanto Gunawan

Session B2 (7F - Analects of Confucious)



Session C2	(7F – Mencius)
	SF. Recent Advance
	Machine Design : '

Date	Time	SF. Recent Advances in Infrastructure Technologies ; ST. Mechanism and Machine Design ; TC. Recent Advances in Artifical Intelligence and Internet of Things Session Chair : Prof. Dae-Jin Kim ; Prof. Wonho Suh
	10:30~10:45	ST9002 Face Recognition on Intelligent Door Lock with ResNet50 Model Based on Deep Learning Suphawimon Phawinee, Jing-Fang Cai, Zhe-Yu Guo, Hao-Ze Zheng, Guan-Chen Chen
	10:45~11:00	SF9001 Assessment of Inelastic Torsional Deformation of Plan-Asymmetric Shear Wall Systems Taehyu Ha, Sung-Gul Hong, Bong-Ho Cho, Dae-Jin Kim
	11:00~11:15	SF9002 Multiscale-Based Assessment on the Effective Material Properties of Textile-Reinforced Concrete Members Hong-Jun Son, Seung-Ho Rhee, Sung Jig Kim, Dae-Jin Kim
16 th Nov. (Sat.)	11:15~11:30	SF9007 Development of a New Truss Deckplate System with High-Strength Mortal Infilled Truss Bars Hong-Jun Son, Young Ho Kim, Heecheul Kim, Dae-Jin Kim
	11:30~11:45	SF9008 Buckling Resistance of a New System Scaffold with Wedge-Shaped Connections Taehyu Ha, Hongjin Kim, Dae-Jin Kim
	11:45~12:00	STC9004 An Artificial Intelligent Disaster-Relief Drone Yeong-Lin Lai, Jeng-Chun Huang, Chin-We Huang, Kai-Han Yang
	12:00~12:15	STC9006 Intelligent Defect Detection Using Deep Learning for TFT LCDs Yeong-Lin Lai, Yeong-Kang Lai, Ting-Hsueh Chuang, Chun-Yi Zheng

Paper Award

Date	Time	1F - Central Garden
	13:25~13:40	SA9001 Using Hybrid Evolutionary Algorithm for Solving Signal Transmission Station Location and Allocation Problem with Different Regional Communication Quality Restriction Ta-Cheng Chen, Sheng-Chuan Wang, Wen-Cheng Tseng
	13:40~13:55	SA9002 Process Parameter Optimization of EVA Foam with Varying Hardness for Custom Orthotic Shoes Insoles for Optimal Surface Roughness and Time Machining Using CNC Milling Machine Paulus Wisnu Anggoro, Abet Adhy Anthony, Mochamad Tauviqirrahman, J. Jamari, Athanasius Priharyoto Bayuseno, Han Ay Lie
	13:55~14:10	SY9004 Filtering of DIM Point Cloud - Algorithms and Applications <i>Ying Cui, He Huang</i>
16 th Nov. (Sat.)	14:10~14:25	SY9005 Combining Oblique Photography with Terrestrial LiDAR for 3D Model Reconstruction of Buildings Xinyu Zhang, He Huang
	14:25~14:40	SE9005 Agrizero: A Triagnulation Adversarial Framework for Agricultural Forecasting Fu-I Chou, Jinn-Tsong Tsai, Wen-Hsien Ho, Yenming J. Chen, Chun-Cheng Kuo
	14:40~14:55	SA9003 Effect of Desulfurization Gypsum on the Properties of Non-cement Blended Materials Wei-Ting Lin
0	14:55~15:10	SL9007 Industrial Knowledge Graph Based Defects Detection System Using Machine Learning Chung-Chi Huang, Chung-Lin Huang, Bo-Yang Ding





Session A3 (6F – Yue)

Date	Time	F. Computer & Information Engineering ; SX. Data Driven Applications/Services
		Session Chair : Prof. Hung-Che Shen
	08:00~08:15	F9001 POCMAR: A Personalized Ontological Contextually-Aware Mobile AR System Chuan-Jun Su, Shi-Feng Huang, Ying-Jen Lin, Yi Li
	08:15~08:30	F9002 The Mobility and Health Care Monitoring: The Evaluation of Reliability & Applicability of Mobile Health Applications <i>Chuan-Jun Su, Shi-Feng Huang, Yi Li</i>
	08:30~08:45	F9003 Building an Asynchronous HTML5-Related Competency-Based Guided E-Learning System Cheng-Hsiu Li
	08:45~09:00	F9004 A Mobility Patterns Aware RFID Tag Identification Algorithm <i>Yen-Hung Chen, Arthur Chang, Shu-Rong Huang</i>
17 th Nov. (Sun.)	09:00~09:15	F9005 Expression Control in Spanish MIDI-to-Singing Voice Synthesis Hung-Che Shen
	09:15~09:30	F9008 A Robust Nighttime Vehicle Detection Based on Headlights Detection <i>Wen-Kai Tsai, Hung-Ju Chen</i>
	09:30~09:45	F9012 Microscale Defect Inspection for Plastic Resin Films Ya-Hsin Teng, Lun-Chi Chen, Chien-Hao Tseng, Guan-Hua Huang, Ruey-Kai Sheu
	09:45~10:00	SX9003 Improvement on the Accuracy of the Measurement of Multiple Users' Breathing by Using Far Infrared Imaging Dai Hanawa, Ryohei Takatori, Seiya Mishima, Satsuki Yamada, Kimio Oguchi
	10:00~10:15	SX9004 Building Energy Visualization System Encouraging to Energy Saving Activities by Using Social Networking Service Dai Hanawa, Satsuki Yamada, Riana Uchima, Kenta Maruyama, Gyuyoung Yoon

Session B3 (7F - Analects of Confucious)

Date	Time	G. Green Technology & Civil Engineering ; SG. Recent Advances in Green Innovative Materials and Construction Technology in Civil Engineering Session Chair : Prof. Wei-Ting Lin ; Prof. Dooyong Cho
17 th Nov. (Sun.)	08:00~08:15	SG9003 Application of Green Materials on Roller Compacted Concrete Using Circulation Fluidized Bed Combustion Co-Fired Fly Ash Wei-Ting Lin, Kailun Chen, Weidong Liu, Kinga Korniejenko
	08:15~08:30	SG9005 Study on Mixed Properties of Green Controlled Low Strength Cementitious Materials Sung-Ching Chen, Wei-Ting Lin, Po-Yu Huang
	08:30~08:45	SG9006 Mechanical Properties of Short Fibre-Reinforced Geopolymers Made by Casted and 3D Printing Methods: A Comparative Study Kinga Korniejenko, Michał Łach, Shih-Yu Chou, Wei-Ting Lin, An Cheng, Maria Hebdowska-Krupa, Szymon Gądek, Janusz Mikuła
	08:45~09:00	SG9007 Limitation of Leaching and Improvement of Geopolymer Properties by Addition of Aluminum-Calcium Cements and Titanium Oxide Michał Łach, Kinga Korniejenko, Janusz Walter, Anna Stefańska, Janusz Mikuła
	09:00~09:15	SG9008 Compressive Strength for Alkali-Activated Slag Cementitious Using SiO2&Na2O Dosages Chi-Che Hung, Wei-Ting Lin, Jia-Sheng Chiou, Weichung Yeih, Jiang-Jhy Chang, Yuan-Chieh Wu
	09:15~09:30	G9002 The FEM Analysis on Long-Term Performance of Bonded Natural Stone Pavement <i>Dooyong Cho, Junho Gong, Hoseong Jeong, Kukju Kim</i>
	09:30~09:45	G9003 Experimental Analysis on Long-Term Performance of Bonded Natural Stone Pavement <i>Junho Gong, Hoseong Jeong, Euiseok Han, Dooyong Cho</i>
	09:45~10:00	G9006 Delay Liquidated Damages (DLDs) Mitigation Model Using Earned Schedule (ES)-Based Algorithm for Engineering-Procurement-Construction (EPC) Projects Jae-Min Cho, Chi-Joo Lee, Eul-Bum Lee, Joo-Hoon Lee
	10:00~10:15	G9007 Generating a Precise Road Map Using High-Resolution UAV Images <i>Kuk Cho, Hoseong Jeong, Junho Gong, Dooyong Cho</i>



Session C3 (2	7F – Mencius)
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Date	Time	N. Intelligent Computing ; SR. Intelligent Manufacturing and Forming Technology ; SV. Application of Artificial Intelligence in Machinery Industry ; SW. Recent Advances in Measurement Session Chair : Prof. Dyi-Cheng Chen
17 th Nov. (Sun.)	08:00~08:15	SW9003 A novel EMAT for Bolt Axial Load Measurement in Situ Xu Ding, Xinjun Wu
	08:15~08:30	N9004 Use of Evolutionary Algorithm for Solving Multi-Objective Competitive Location Problem with Cooperative-Covering for Distance-Based Attractiveness Sheng-Chuan Wang, Ta-Cheng Chen
	08:30~08:45	N9005 Sentence Similarity Estimation Based on Siamese Network Using Sent2Vec Tak-Sung Heo, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim
	08:45~09:00	N9006 Language Age Group Classification Using Deep Neural Networks Byoung-Doo Oh, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim
	09:00~09:15	SR9001 Application of Sequential Quadratic Programming for Obtaining Optimal Obstacle Avoidance Posture and End Position of a 7-Axis Robotic Manipulator Wen-Jong Chen, Tzu-Yang Huang
	09:15~09:30	SR9002 Application of the Taguchi Method for Finite Element Analysis of Shear-Type Magnetorheological Fluid Damper Dyi-Cheng Chen, Li-Ren Chen
	09:30~09:45	SR9003 Application of the Finite Element Analysis and Implementation of Commemorative Coins <i>Dyi-Cheng Chen, Ci-Syong You</i>
	09:45~10:00	SV9001 The Implementation of Edge Computing Algorithm on an Smart AI Robot Embedded with Floating Gating MOSFET Devices <i>Joy Iong-Zong Chen, Pisith Hengjinda</i>
	10:00~10:15	N9001 A Convolutional Neural Networks Based Linking Flooding Attacks Detection Framework Yen-Hung Chen, Arthur Chang, ChunWei Huang, Chih-Han Chang, Yo-Cih Huang

Session A	Session A4 (6F – Yue)		
Date	Time	SL. Applications in Machine Learning and Smart Automation ; ST. Mechanism and Machine Design ; SX. Data Driven Applications/Services Session Chair : Prof. Chung-Chi Huang ; Prof. Meng Yu	
17 th Nov. (Sun.)	10:30~10:45	SL9002 The Deployment of SAR with Smart Mechanical Construction and Innovation of Machine Learning Joy Iong-Zong Chen, Pisith Hengjinda	
	10:45~11:00	ST9007 Compliant Mechanism Design of a New 3-DoF Vibrating Platform Wen-Hsiang Hsieh, Adhitya	
	11:00~11:15	SL9008 Development of Intelligent Assessment and Prediction System for Somatic Fitness and Healthcare Using Machine Learning Method Hsiao-Man Liu, Chung-Chi Huang, Chung-Lin Huang	
	11:15~11:30	SL9009 Study on Customized Knowledge Graph of Student Pilot Learning in FITS Training Chung-Lin Huang, Chung-Chi Huang	
	11:30~11:45	SL9011 Optimization and Improvement Analysis of Automatic Delivery Systems for Manufacturing Material Handling Applications Jeng-Han Li, Chuan-Yu Huang, Tzu-Ang Huang, Shen-Rui Li, Jun-Yao Yang, Chung-Chi Huang	
	11:45~12:00	SL9003 Detection of Abnormal Behavior in Children Based On Intelligent Cushion <i>Meng Yu, Xiong Li, Bao Lu</i>	
	12:00~12:15	SX9001 Feasible Therapy Method Using Virtual Reality by Assessing Heart Rate Variety Kimio Oguchi, Yuta Yamamoto, Satoru Takahashi, Nobuko Takizawa	





Session D	Session B4 (7F - Analects of Confucious)		
Date	Time	WB. Biomechanics ; WC. Health Care Technology ; WD. Medical Devices, Biomedical Materials, Measurement And Instrumentation ; WE. Medical Imaging, Image and Signal Processing Session Chair : Prof. Zhang-Yan Zhao	
17 th Nov. (Sun.)	10:30~10:45	WB9001 Development and Characterization of an Electromagnet-Based Artificial Muscle Antonio P. Doroliat, Chih-Hung G. Li	
	10:45~11:00	WC9001 Implementation of Patient Discomfort Recognition in Images Using CNNs Shaamer Kumar	
	11:00~11:15	WD9002 Improvement Autonomic Nervous System Stability Using Resonance Sound Stimulation Of Mean Heart Rate To Prevent Sudden Cardiovascular Change Dea-Chang Kim, Jae-Hoon Jeong, Sung-Min Kim	
	11:15~11:30	WD9004 Developing a Smart Walking Cane with Remote Electrocardiogram and Fall Detection Hsi-Chiang Chou, Kai-Yu Han	
	11:30~11:45	WE9002 A Novel Intensity Weighting Approach Using Convolutional Neural Network for Optic Disc Segmentation in Fundus Image Ga-Young Kim, Sang-Hyeok Lee, Sung-Min Kim	
	11:45~12:00	WE9004 Crane Type Identification Strategy Based on Migration Learning and Fine Tuning Bi-Yue Liu, Zhang-Yan Zhao	

Session B4 (7F - Analects of Confucious)

Date	Time	J. Mechanical Engineering	
- Date		Session Chair : Prof. Chao-Hui Ou	
	10:30~10:45	J9004	
		FEM Design of Proportional Solenoid for Hydraulic Proportional	
		Suspension Damper	
		Jyh-Chyang Renn, Yi-Zhe Xie, Yi-Kai Huang, Chin-Yi Cheng, Chun-Bin Yang	
	10:45~11:00	J9008	
		Influence of the Redundant Hole Directions on the Response and Failure	
		of Round-hole Tubes Subjected to Cyclic Bending	
		Kuo-Long Lee, Bor-You Liu, Wen-Fung Pan	
	11:00~11:15	J9018	
		Development of Multilayer Magneto-Rheological Brake for Knee-Orthosis	
17 th Nov.		Applications	
(Sun.)		Yaojung Shiao, Mahendra Babu Kantipud, Chien-Hung Lai, Nung-Chin Kao	
	11:15~11:30	J9021	
		Numerical Simulation Analysis of Carbon Fiber High-Speed Railway	
		Vehicle Body Test Specimen Strength	
		Chao-Hui Ou	
	11:30~11:45	J9005	
		Research on Dynamics and Rolling Vibration of Lead Screw Feed Drives	
		Yong Zhou, Qin Li, Xiaohua Cao, Guoxian Wang	
	11:45~12:00	J9027	
		Experimental Study on PCD Tool Wear Prepared by WEDM and Grinding	
		Ke Sun, Xian Wu, Jianyun Shen, Li Liu	