Online Session A1

Date	Time	WD. MEDICAL DEVICES, BIOMEDICAL MATERIALS, MEASUREMENT AND INSTRUMENTATION ; F. Computer & Information Engineering ; G. Green Technology & Civil Engineering ; H. Industry 4.0 & Automation Engineering ; L. Environmental, Food, Health Science & Technology ; SJ. Recent Advances in Surveying and Geomatics Engineering *Session Chair*: *Prof. Hariyanto Gunawan*
29th Oct. (Sat.)	08:00~08:15	**WD222** **EEG Measurement and Analysis in the Sitting Hyperbaric Oxygen Chamber** *Mao-Sung Chen, Shih-Chng Chen*
	08:15~08:30	**G202** **Flexural Behaviour of Built-Up Cold-Formed Steel Channel Section Strengthened with Oriented Strand Board** *Mohd Syahrul Hisyam Mohd Sani, Haslin Idayu Amaruddin, Wan Mohd Nazri Wan Abdul Rahman, Fadhluhartini Muftah*
	08:30~08:45	**G203** **Analysis of Burial Depth of Gas Pipelines Crossing Rivers Due to Variation of River Bed** *Tae-Soo Eum, Won Choi, Dong-Yeon Ko, Chang-Geun Song*
	08:45~09:00	**G204** **Evaluation of Applicability of 2D River Flow Analysis Model according to River Cross-Section Topographic Data** *Eun-Taek Shin, Tae-Soo Eum, Se-Hyuck An, Chang-Geun Song*
	09:00~09:15	**H202** **Geometric Accuracy Control of Electrode Discharge Machining Process** *Hariyanto Gunawan, Jun-Kai Peng, Shih-Ming Wang, Ren-Qu Tu*
	09:15~09:30	**L207** **A Fuzzy System with Virtual Reality for Testing Mild Cognitive Impairment** *Cheng-Li Liu, Shiaw-Tsyr Uang*
	09:30~09:45	**F208** **Improving Test Efficiency for REST API Sequence Testing** *Chien-Hung Liu, Shu-Ling Chen, Guang-Ying Wu*
	09:45~10:00	**SJ212** **Auto-Calibration of Camera with High Definition Map** *Kuk Cho, Dooyong Cho*

Online Session A2

Date	Time	M. Innovation Management ; SC. Dynamics and Autonomous Technology in Naval Architecture ; SG. System Development, Control, and Optimization ; SK. Intelligent Manufacturing and Forming Technology ; SL. Applied Technology Education *Session Chair*: *Prof. Dyi-Cheng Chen ; Prof. Hyeung-Sik Choi*
29th Oct. (Sat.)	10:15~10:30	**M204** **Exploring the Relationship of Moderating Variables Affecting the Consumers' Usage of Over-the-Top Media Services- Using Netflix as an Example** *Wan-Yu Chu, Yu-Lung Wu*
	10:30~10:45	**M205** **Online Investment Behavior and Online Financial Product Selection- A Case Study of the Investment of Elementary School Teachers** *Tsai-Wei Han, Yu-Lung Wu*
	10:45~11:00	**SG213** **A Novel Version of Firely Algorithm for Global Optimization** *Ji-Pyng Chiou, Shi-Nian Chen*
	11:00~11:15	**SG214** **A Comparative Study between FA and BOA by Numerical Functions Optimization** *Ji-Pyng Chiou, Chun-Cheng Yeh*
	11:15~11:30	**SK201** **The Relationship among Taiwan's Machine Tool Industry Manufacturing Strategies, Competitive Advantages, and Enterprise Performance** *Dyi-Cheng Chen, Tzu-Wen Chen*
	11:30~11:45	**SL202** **The Effects of Education and Training on the Work Ability and Retention Intention-Taichung and Changhua Machinery Industry Employees as an Example** *Dyi-Cheng Chen, Jia-Yue Guo*
	11:45~12:00	**SL203** **The Researches of Flipped Teaching Approach on Students' Skills Learning in the Core Curriculums of Industry 4.0** *Dyi-Cheng Chen, Jui-Chuan Hou, Tzu-Wen Chen*
	12:00~12:15	**SC201** **A Study of un Underwater Thruster Fault Diagnosis of the USV Based on PCA-Entropy** *Ki-Beom Choo, Hyunjoon Cho, Jung-Hyeun Park, Dong-Wook Jung, Hyeung-Sik Choi*
	12:15~12:30	**SC202** **Analysis on a New Twin Hybrid Autonomous Underwater Vehicle** *Jiafeng Huang, Hyeung-Sik Choi*

Online Session A3

Date	Time	YC. Related Technologies and Applications ; A. Materials Engineering ; C. Electrical & Electronic Engineering ; SG. System Development, Control, and Optimization ; SP. Mechanism, Machine and Electric Machine Design *Session Chair*: *Prof. Jih-Mirn Jehng ; Prof. Yenming J. Chen*
30th Oct. (Sun.)	08:00~08:15	**YC103** **The Catalytic Properties of Ethylene Reactions over Silver and Reduced Vanadium Oxide Catalyst on MEMS Chips with Micro Hot Plate** *Guang-Je Guo, Jih-Mirn Jehng*
	08:15~08:30	**A206** **Analytical Model of Pre-Molded Internal Thread on Composite Tubes** *Ryuta Kitamura, Atsushi Takano*
	08:30~08:45	**A207** **Enhancement Quality Factor by Ge+4 Substitution at A-Site of Zn2SnO4 Microwave Ceramics** *Yih-Chien Chen, Tse-Lung Lin*
	08:45~09:00	**C201** **Multi-Sensor Wearable 3D-Printed Medical Device for Early Detection of Hemodialysis Access Dysfunction** *Wei-Ling Chen, Tsung-Lung Yang, Chung-Dann Kan*
	09:00~09:15	**SG212** **System Design and Launch of Hybrid Rocket with a Star-Fractal Swirl Fuel Grain toward an Altitude of 15 km** *Atsushi Takano, Keita Yoshino, Yuki Fukushima, Ryuta Kitamura, Yuki Funami, Kenichi Takahashi, Akiyo Takahashi, Yoshihiko Kunihiro, Makoto Miyake, Takuma Masai, Shizuo Uemura*
	09:15~09:30	**SP202** **On the Design of Hybrid Magnetic Gears for Continuously Variable Transmissions** *Yi-Chang Wu, Saian Nur Fajri, Tsung-Yi Lin*
	09:30~09:45	**SP203** **Design of a Retarder System Assisted with a Gear Mechanism for Escape Slings** *Yi-Chang Wu, Zulfan Yus Andi, Chia-Chun Chu, Chien-Sheng Huang*
	09:45~10:00	**SP201** **Magnetic Flux Leakage Analysis of a Novel Three-Phase Induction Motor with Wound Rotor** *Wan-Tsun Tseng, Kai-Hong Cheng*

Online Session A4

Date	Time	CF. Computer & Information Engineering ; WA. BIOCOMPUTING AND BIOINFORMATICS ; C. Electrical & Electronic Engineering ; SB. Approaches on Swarm Intelligence and Deep Learning for Industrial Applications ; SD. Recent Innovations and Applications in Imaging Technology and Fingerprint Processing ; SI. Applications in Machine Learning and Smart Automation ; SJ. Recent Advances in Surveying and Geomatics Engineering *Session Chair: Prof. Po-Tong Wang ; Prof. Nan Pan*
30th Oct. (Sun.)	10:15~10:30	**CF222** **Development of the Abnormal Tension Pattern Recognition Module for Twist Yarn Based on Deep Learning Edge Computing** *Yan-Long Huang, Chuan-Pin Lu*
	10:30~10:45	**WA224** **Atrial Fibrillation Classification Using MsCWT and Convolutional Neural Networks** *Ling-Chun Sun, Chia-Chiang Lee, Hung-Yen Ke, Chih-Yuan Wei, Ke-Feng Lin, Shih-Sung Lin, Hsin Hsiu, Ping-Nan Chen*
	10:45~11:00	**SB220** **Deep Neural Network for Determination of Ground Shaking's Seismic Intensity Level** *Eiji Nouchi, Rito Yamakawa, Buntara S. Gan*
	11:00~11:15	**SB221** **An Improve Yolov3-Tiny for Pedestrian Detection** *Chun-Che Kao, Jia-Shing Sheu*
	11:15~11:30	**SD202** **Real-Time Hand Movement Trajectory Track Using Deep Learning** *Chih-Fang Shen, Po-Tong Wang, Jia-Shing Sheu*
	11:30~11:45	**SJ214** **Development of GNSS Quality Control Algorithm for Layer Management in Smart Earthworks** *Jae-Kang Lee, Yong Huh, Jung-Ok Kim*
	11:45~12:00	**C216** **The Dispense Inspection of Flip-Chip Packaging Using Automated Optical Inspection** *Jung-Sheng Chiang, Chin-Lung Tsai, Yu-Cheng Chuang, Nai-Hsiang Sun*
	12:00~12:15	**SI213** **Point-to-Point Displacement Prediction and Feedback Control for an XXY Table Based on Long Short-Term Memory** *Ming-Yu Ma, Yi-Cheng Huang, Yu-Tso Wu*
	12:15~12:30	**SJ211** **Shallow Water Classification for Airborne LiDAR Bathymetry Using Improved Waveform Decomposition and SVM Techniques** *Hyejin Kim, Jaehoon Jung, Jaebin Lee*
	12:30~12:45	**M206** **Innovative Management and Discussion of Self-Paying Medical Care** *Yan-Lin Chou, Zhi-Xiong Zhang, Yu-Lung Wu*