

Session A1 (1F - Caval Vine)

Date	Time	<p>H. Industry 4.0 & Automation Engineering ; I. Control Engineering ; K. Nanotechnology ; O. Other Engineering and Technology related topics ; SO. Intelligent Manufacturing and Forming Technology</p> <p><i>Session Chair: Prof. Dyi-Cheng Chen ; Prof. Quang-Cherng Hsu</i></p>
24 th Oct. (Sat.)	08:00~08:12	<p>H209 Weld Image Deep Learning-Based Defects Detection Using Autoencoder Networks and Self-Organizing Map <i>Yen-Han Chiang, Chia-Chin Chen, Chih-Min Yao, Wei Chih Su</i></p>
	08:12~08:24	<p>H210 An Intelligent Optimization System for the Photolithography Process of Color Filter <i>Wen-Chin Chen, Yu-Ying Chan, Kuan-Ming Lin, Chen-Cheng Yu, Wu-Der Jeng</i></p>
	08:24~08:36	<p>SO201 Apply the Taguchi Method Combined with Machine Learning in Finite Element Analysis of Flat Bottom Engraving Cutter <i>Dyi-Cheng Chen, Ci-Syong You, Shih-Ming Huang</i></p>
	08:36~08:48	<p>SO202 The Research on Optimization Parameters for End Mill Cutting Using Taguchi Method <i>Dyi-Cheng Chen, Tzu-Wen Chen</i></p>
	08:48~09:00	<p>SO203 Image Feature Analysis for Magnetic Particle Inspection of Forging Defects <i>Jhan-Hong Ye, Rui-Hong Ni, Quang-Cherng Hsu</i></p>
	09:00~09:12	<p>SO204 The Comparison Study of Different Machine Learning Algorithms for Task Failure Prediction of Wafer Handling Robot Arms <i>Ping Wun Huang, Kuan-Jung Chung</i></p>
	09:12~09:24	<p>H212 On the Rotatory Conveying of a Vibratory Platform Driven by Eccentric Rotating Mass Motors <i>Wen-Hsiang Hsieh, Yasya Khalif Perdana Saleh</i></p>
	09:24~09:36	<p>O207 Machine Learning of Trap-Neuter-Return Surgery Images for Stray Animals by Using Object Detection and Decision Fusion <i>Yi-Cheng Huang, Ting-Hsueh Chuang, Yeong-Lin Lai</i></p>
	09:36~09:48	<p>I202 Robust Self-Adaptive Kalman Filter with Application in Target Tracking <i>Yi-Wei Chen, Ken-Ming Tu</i></p>
	09:48~10:00	<p>K203 Promotion of ppm-scale Detection of Impurity in Reagent via Scanning Mobility Particle Sizer <i>Alice Chinghsuan Chang, Fang-Hsin Lin</i></p>



Session A2 (1F - Caval Vine)

Date	Time	<p>B. Mechatronic and Robotics Engineering ; F. Computer & Information Engineering ; H. Industry 4.0 & Automation Engineering ; O. Other Engineering and Technology related topics ; SK. Recent Advances in Green Innovative Materials and Construction Technology in Civil Engineering ; SL. Applications in Machine Learning and Smart Automation ; C. HEALTH CARE TECHNOLOGY ; F. MODELLING, SIMULATION, SYSTEMS AND CONTROL</p> <p><i>Session Chair: Prof. Wei-Ting Lin ; Prof. Wen-Chung Kuo</i></p>
24 th Oct. (Sat.)	10:15~10:27	<p>WC207 Fall Detection Bases on Multiple AIOT Biomedical Sensors for Elders <i>Cheng-Wen Lee, Hsiu-Mang Chuang</i></p>
	10:27~10:39	<p>WF202 Design of a Seniors and Alzheimer's Disease Caring Service Platform <i>Cheng-Wen Lee, Hsiu-Mang Chuang</i></p>
	10:39~10:51	<p>SK204 Performance of Green Concrete and Inorganic Coating Materials <i>Sung-Ching Chen, Wei-Ting Lin, Ran Huang, Hui-Mi Hsu</i></p>
	10:51~11:03	<p>SK205 Influence of the Amount of Cement Substituted by Pozzolanic Materials on the Compressive Strength and pH Value of Concrete <i>Chi-Che Hung, Wei-Ting Lin, An Cheng, Yuan-Chieh Wu</i></p>
	11:03~11:15	<p>H213 On a Press System with Six Links Considering Functional and Energy-Saving Requirements <i>Wen-Hsiang Hsieh, Muhammad Syafiq</i></p>
	11:15~11:27	<p>F207 A Tamper-Proof Secret Image Sharing Scheme <i>Wen-Chung Kuo, Chun-Cheng Wang, Yi-Jiun Chen, Lih-Chyau Wu</i></p>
	11:27~11:39	<p>F212 Vehicle Detection and Tracking with Kalman Filter Based on Multiple Objection Classifier <i>Cong-Hung Nguyen, Miin-Jong Hao, Te-Jen Su, Shou-Sheu Lin</i></p>
	11:39~11:51	<p>O203 Obstacle Tracking Method Integrated with Cartographic Information Based on Sensor Fusion <i>Siang-Min Siao, Ying-Ren Chen</i></p>
	11:51~12:03	<p>O204 A Dynamic Location Transformation Method for Autonomous Vehicle Relocalization Using Stereo ORB-SLAM <i>Cheng-Kai Wang, Yi-Jie Lin, Hung-Pang Lin</i></p>
	12:03~12:15	<p style="text-align: center;">/</p>
12:15~12:27	<p>B206 Application of Image Recognition in Workpiece Classification <i>Hsin-Yi Chien, Yu-Chen Wang, Guan-Chen Chen</i></p>	

Paper Award

Date	Time	1F - Sakura & Osmanthus
24 th Oct. (Sat.)	13:30-13:42	SA201 The Motion Path Detection Using Vision and Multi-Cloud Computing <i>Shao-Yu Lin, Jia-Shing Sheu</i>
	13:42~13:54	SA202 Tea Verification Using Triplet Loss Convolutional Network <i>Kun-Yi Chen, Chi-Yu Chang, Zhi-Ren Tsai, Chun-Ting Lee, Zon-Yin Shae</i>
	13:54~14:06	SA203 Camera Handoffs for Muti-Camera Muti-Object Tracking <i>Jing-Han Lai, Jia-Shing Sheu</i>
	14:06~14:18	SA204 Lane Shift Detection Warning System Using Computer Vision <i>Chun-Kang Tsai, Jia-Shing Sheu</i>
	14:18~14:30	SA205 Multi-Objective Optimization Design of a Centrifugal Pump Volute Casing Based on Hybrid Teaching Learning–Based Optimization Algorithm <i>Tien V.T. Nguyen, Shyh-Chour Huang</i>
	14:30~14:42	SA206 Introducing Kernel Density Estimation Based Clustering into Dockless Shared Bicycle Flow Control <i>Shang-Yuan Chen, Tzu-Tien Chen</i>
	14:42~14:54	SA207 Development of a Small Intelligent Weather Station for Agricultural Applications <i>Yi-Hua Chung, Jun-Fu Huang, Yuan-Chen Hu, Chen-Kang Huang</i>
	14:54~15:06	SA208 Cold Sensation Increased Plantar Tactile Sensation for Young Female <i>Tianyi Wang, Shima Okada, Masaaki Makikawa, Yuko Ohno</i>
	15:06~15:18	SA211 Mix Resolution Real Time Sepsis Data Analysis Using ANN <i>Peter I-Tsyuen Chang, Jerome Aboab, Yi-Ru Lu, Ahmad Khairul Faizin, Chun-Fan Chang</i>
	15:18~15:30	SA209 Effect of NaOH Molarities on Compressive Strength and Microstructures of Reactive Ultra Fine Fly Ash Geopolymer <i>Wei-Ting Lin</i>
	15:30~15:42	SA212 Using Deep Learning Technology to Realize the Automatic Control System of Robot Arm Based on Hand Gesture Recognition <i>Shang-Liang Chen, Li-Wu Huang</i>



Session A3 (1F - Caval Vine)

Date	Time	<p>C. Electrical & Electronic Engineering ; J. Mechanical Engineering ; SU. Innovations on Composite and Its Applications <i>Session Chair: Prof. Wan-Tsun Tseng ; Prof. Wen-Cheng Yeh</i></p>
25th Oct. (Sun.)	08:00~08:12	<p>J205 A Numerical Approach to Modify Finger-Type Forming Tool Profile and Enhance Machining Accuracy for Vacuum Pump Screw Rotors <i>Minh-Thuan Hoang, Yu-Ren Wu</i></p>
	08:12~08:24	
	08:24~08:36	
	08:36~08:48	<p>J221 Meshfree Method for Geometrical Nonlinear Analysis of Frames with a Finite Deformation Theory <i>Wen-Cheng Yeh</i></p>
	08:48~09:00	<p>J229 Optimization of Coaxial Magnetic Gear Mechanisms Used for Small-Scale Counter-Rotating Wind Turbines <i>Yi-Chang Wu, Mi-Ching Tsai, Saian Nur Fajri</i></p>
	09:00~09:12	<p>C209 Voltage-Mode Quadrature Sinusoidal Oscillator Using Current-Feedback Amplifiers <i>Hua-Pin Chen, Cheng-Mao Yang, An-Chun Yeh, Cheng-Hsin Lu, Shih-Jun Chen</i></p>
	09:12~09:24	<p>C210 Voltage-Mode Universal Biquadratic Filter with Three Inputs and Single Output Using Five Single-Ended OTAs and Two Grounded Capacitors and Its Application <i>Hua-Pin Chen, Yi-Chun Lin, Jen-Wei Chen</i></p>
	09:24~09:36	<p>C211 High-Input Impedance Voltage-Mode Multifunction Filter <i>Hua-Pin Chen, Yi-Fang Li</i></p>
	09:36~09:48	<p>C212 Voltage-Mode and Current-Mode Quadrature Oscillator with Fully Uncoupled Electronic Control of Oscillation Condition and Frequency <i>Hua-Pin Chen, Ming-Xiu Zhong, Yu-Zhe Gao, Jen-Wei Chen, Yuan-Cheng Yi</i></p>
	09:48~10:00	<p>SU201 Magnetic Circuit Analysis of a Novel Three-Phase Asynchronous Motor with Wound Rotor <i>Wan-Tsun Tseng, Yu-Chih Cheng</i></p>

Session A4 (1F - Caval Vine)

Date	Time	<p>E. Chemical & Biomedical Engineering ; G. Green Technology & Civil Engineering ; M. Innovation Management ; O. Other Engineering and Technology related topics ; SX. Innovations on Control and Its Applications ; SF. Recent Advances in Bioinformatics ; A. BIOCUMPUTING AND BIOINFORMATICS ; C. HEALTH CARE TECHNOLOGY ; F. MODELLING, SIMULATION, SYSTEMS AND CONTROL</p> <p><i>Session Chair: Prof. Yean-Der Kuan ; Prof. Hsiang-Chen Hsu</i></p>
25 th Oct. (Sun.)	10:15~10:27	<p>G208 The Effect of Hydrogen Production Rate of the Via Different Preparation of Co-Based Catalyst with Sodium Borohydride <i>Jyun-Lin Lai, Win-Jet Luo, Yean-Der Kuan</i></p>
	10:27~10:39	<p>G209 To Monitor and Diagnose Structure Health Via Conv-Lstm <i>Chih-Hao Chou</i></p>
	10:39~10:51	<p>O209 A Fuzzy Control Model for the Health of the Senior Visitors within a Virtual Museum <i>Cheng-Li Liu, Shiaw-Tsyur Uang</i></p>
	10:51~11:03	<p>SX202 Application of Heat Recovery System for Replaceable Low-Carbon Smart Building <i>Yu-Wei Chiu, Wei-Ming Chiu, Yean-Der Kuan</i></p>
	11:03~11:15	<p>E209 Design and Fabrication on Wearable Medical Device for Initial Osteoarthritis (OA) Detection <i>Hsiang-Chen Hsu, Jia-Jung Wang, Shih-Han Wu</i></p>
	11:15~11:27	<p>WA202 Real-Time Sepsis Onset Detection from High-Resolution Biosignals Using Artificial Neural Network <i>Peter I-Tsyuen Chang, Jerome Aboab, Yi-Ru Lu, Ahmad Khairul Faizin, Chun-Yao Huang</i></p>
	11:27~11:39	<p>WC201 Assessment of Potential Human Health Risks in Aquatic Products Based on the Heavy Metal Hazard Decision Tree <i>Pinpin Lin, Hao-Hsiang Ku, Min-Pei Ling</i></p>
	11:39~11:51	<p>SF205 A Primary Study on Human Kinematics Realtime Estimation-Openpose <i>Tung-Kuan Liu, Kai Hsiao</i></p>
	11:51~12:03	<p>M203 Strengthen the Data Protection Architecture of Sports Even with Blockchain Technology <i>Hsia-Hung Ou</i></p>
	12:03~12:15	<p>WF201 The Revolution of Cultivating Edible Mints via AIoT Techniques in an Office Setting <i>Hao-Hsiang Ku, Cheng-Hsuan Liu, Wen-Cheng Wang</i></p>
12:15~12:27		



Session C1

Date	Time	SQ. Advances in Ocean Engineering and Marine Science <i>Session Chair: Prof. Deokhee Won</i>
24th Oct. (Sat.)	08:00~08:12	SQ208 A Study on the Analysis of Minimum Speed Control Effect Using Queue Model–Focused on Busan Port <i>Sang-Won Park, Won-Sik Kang, Young-Soo Park</i>
	08:12~08:24	SQ211 Internal Force Evaluation of a Submerged Floating Pipeline under Irregular Waves <i>Deokhee Won, Jihye Seo, Jong-Sup Park, Seungjun Kim</i>
	08:24~08:36	SQ212 Abnormally High Water Temperature Prediction Using LSTM Deep Learning Model <i>Hey-Min Choi, Min-Kyu Kim, Hyun Yang</i>
	08:36~08:48	SQ213 Dynamic Behavior of a Long-Span Cable-Stayed Bridge with Floating Towers after the Sudden Failure of Tethers and Cables under Irregular Waves <i>Minseo Jang, Yunwoo Lee, Seungjun Kim, Young-Jong Kang</i>
	08:48~09:00	SQ214 Short-Term Fatigue Damage of Tethers of Long-Span Floating Cable Supported Bridges under Harsh Waves <i>Deokhee Won, Young-Jong Kang, Seungjun Kim</i>
	09:00~09:12	SQ215 A Study on the Development of Collision Warning System for Small Maritime Autonomous Surface Ship <i>Won-Sik Kang, Young-Soo Park</i>
	09:12~09:24	SQ216 Marine Drone Design and Sea-Trial for Long-Term/Long-Time Oceanographic Observation <i>Jongsu Yoon, Jinhun Choo, Wook Kwon, Taegy Hwang, Seong-Yong Kwon</i>
	09:24~09:36	SQ217 Risk Assessment to Identify High-Collision Potential Vessel-Bridge Pairs in Vessel Traffic Service <i>Jeong-Bin Yim, Chun-Ki Lee</i>
	09:36~09:48	SQ218 Modeling the Navigator’s Errors Involved in Collision Accidents by Means of Hidden Markov Models <i>Deuk-Jin Park, Jeong-Bin Yim, Chun-Ki Lee</i>
	09:48~10:00	SQ219 Analysis on Temporal and Spatial Variability of Cold Water Zone in the Pohang of Korea <i>Suk Yoon, Hyun Yang</i>

Session C2

Date	Time	F. Computer & Information Engineering ; N. Intelligent Computing <i>Session Chair: Dr. Sheng-Jie Ke</i>
25 th Oct. (Sun.)	08:00~08:12	F203 What Product Descriptions Drive Sales? An Application of a Text Mining Analysis and the Wavenet Neural Network Model <i>Sheng-Jie Ke, Dan Liu</i>
	08:12~08:24	F206 The Solution of Check Hidden Systray Icon in Windows <i>Hao-Ting Chien, Jwo-Shiun Sun, Guan-Yu Chen</i>
	08:24~08:36	F208 Use Serverless Architecture to Monitor Host or Service Performance, and Critical Logs <i>Chih-Chia Wang, Jwo-Shiun Sun, Guan-Yu Chen</i>
	08:36~08:48	F211 Analysis and Application of Autoencoder's Features from Addiction Data of Questionnaire <i>Kappeta Uma, Zhi-Ren Tsai, Zon-Yin Shae, Huei-Chen Ko, Jeffrey J.P. Tsai</i>
	08:48~09:00	F213 The Energy-Aware Multi-UAV Dispatch and Handoff Algorithm for Maximizing the Event Communication Time in Disasters <i>Ing-Chau Chang, Chi-Sheng Liao, Chin-En Yen</i>
	09:00~09:12	N202 Sentence Similarity Evaluation Using Siamese Attention Capsule Network <i>Tak-Sung Heo, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>
	09:12~09:24	N203 Attention-Based Post-Editing for Improving Performance of Korean Speech Recognition Model <i>Yeong-Seok Jeong, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>
	09:24~09:36	N204 Automatic Word Spacing of the Korean Using Syllable and Morpheme Units Information <i>Jeong-Myeong Choi, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>
	09:36~09:48	N205 Attentive Local Feature and Capsule Networks Based Text Classification for Language Development Measurement <i>Byoung-Doo Oh, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>
	09:48~10:00	N206 Topic Modeling for the Analyzing Difference of Topic Management Ability by Age Group <i>Seok-Ju Hwang, Hye-Jeong Song, Jong-Dae Kim, Chan-Young Park, Yu-Seop Kim</i>



Session C3

Date	Time	<p>A. Materials Engineering ; C. Electrical & Electronic Engineering ; H. Industry 4.0 & Automation Engineering ; J. Mechanical Engineering ; O. Other Engineering and Technology related topics ; SM. Recent Advances in Surveying and Geomatics Engineering</p> <p><i>Session Chair: Prof. Myeong-Hun Jeong</i></p>
25 th Oct. (Sun.)	10:15~10:27	<p>C215 The Study of Oscillator Design and Operation <i>Tsung-Lung Ho, Jwo-Shiun Sun, Guan-Yu Chen</i></p>
	10:27~10:39	<p>C217 The Study of Ultra-Low Voltage Analog IC Design <i>Tsung-Lung Ho, Jwo-Shiun Sun, Guan-Yu Chen</i></p>
	10:39~10:51	<p>C223 A Fast and Accurate Method Based On Calorimetry for Entropy Extraction of Li-Ion Battery Using Flexible Thermoelectric Devices <i>Abdul Muiz Ahmad, Guillaume Thenaisie, Sang-Gug Lee</i></p>
	10:51~11:03	<p>H204 A Prediction Method of Maintenance Time Based on Levenberg Marquard Neural Network <i>Chao Dai, Dong Zhou, Shaohua Wang, Xiangming Jin</i></p>
	11:03~11:15	<p>O205 The Discuss of the Use of IR with Liveness Detection <i>Jun-Cheng Chen, Jwo-Shiun Sun, Guan-Yu Chen</i></p>
	11:15~11:27	<p>O210 An Improved FFIP Method Based on Mathematical Logic and SysML <i>Shujie Pang, Jian Jiao</i></p>
	11:27~11:39	<p>J214 Buckling Test of Composite Cylindrical Shells with Large Radius Thickness Ratio <i>Atsushi Takano, Ryuta Kitamura, Takuma Masa, Jingxuan Bao</i></p>
	11:39~11:51	<p>SM208 Highway Speed Prediction Using Gated Recurrent Units Neural Networks <i>Myeong-Hun Jeong, Tae-Young Lee, Seung-Bae Jeon, Minkyoo Youm</i></p>
	11:51~12:03	<p>SM210 Risk Assessment of Urban Environment by Combining Sentinel-1 and Landsat-8 in Mw 7.0 Lombok Earthquake <i>Minkyoo Youm, Myeong-Hun Jeong, Junkyeong Kim, Haksun Kim, Jinsung Yoon</i></p>
	12:03~12:15	<p>A205 Effect of Lap Length and Stiffness of Peel-Stop Fasteners for Single Lap Joint <i>Atsusi Takano, Chao Li, Ryuta Kitamura</i></p>
	12:15~12:27	<p>A206 Development of Pre-Molded Internal Threads on Composite Tubes <i>Atsushi Takano, Ryuta Kitamura, Takuma Masai, Sayaka Nishino</i></p>