

**Thursday, November 15 (10:00 AM to 11:40 AM)**

<b>T1a</b>	<b>Room 322A</b>			<b>Session Chair: Jin Hee Yoon , Sejong Univ. (Korea, Republic of)</b>		
	<b>Fuzzy Theory &amp; Applications</b>					
	<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>		<b>Paper Title</b>	
	T1a-1	P00009	Ming-Tsang Lu		Ming-Tsang Lu	Evaluating Sustainability in Higher Education Institutions: Using Fuzzy Hybrid MCDM Approach
	T1a-2	E00013	Masaya Sakakibara		Akira Notsu	Setting of Candidate Solutions Considering Confidence Intervals in Differential Evolution
T1a-3	E00015	Takeaki Shimizu	Seiki Ubukata	Effects of Semi-supervised Learning on Rough Set-Based C-Means Clustering		
T1a-4	P00023	Yingxu Wang	Jin Zhou	Quasi-Monte Carlo Feature Map based Kernel Fuzzy Clustering		
<b>T1b</b>	<b>Room 322B</b>			<b>Session Chair: Gyei-Kark Park , Mokpo National Maritme Univ. (Korea, Republic of)</b>		
	<b>Maritime Safety System using Fuzzy Logic</b>					
	<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>		<b>Paper Title</b>	
	T1b-1	P00040	Thi Quynh Mai Pham		Gyei-Kark Park	On the Analysis of Relation between Marine Accidents and Traffic Conditions in the Narrow Waterways Using FCM
	T1b-2	P00043	Yancai Hu		Gyei-Kark Park	Generating of Vulnerability in the Congested Traffic Waters using Fuzzy Logic
T1b-3	P00044	HOANG THI MINH DO	Gyei-Kark Park	A Study on the Relational Analysis of Vulnerability Factors of Marine Accidents Using FSM and AHP		
T1b-4	P00051	Dai Duong Nguyen	Gyei-Kark Park	A Study on Relationship between Marine Accidents and Traffic Status in Narrow Waterways Using Regression Analysis		
<b>T1c</b>	<b>Room 323A</b>			<b>Session Chair: Young-Jae Ryoo , Mokpo National Univ. (Korea, Republic of)</b>		
	<b>Artificial Intelligent Systems for Robotics</b>					
	<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>		<b>Paper Title</b>	
	T1c-1	P00049	Jinseok Woo		Jinseok Woo	Interaction Design Using Multi-Robot System for Information Support
	T1c-2	P00022	Daeyeong Im		Kwang-Kyo Oh	Simulation of Speed-Drooped Operation of Multiple Motors
T1c-3	P00059	Amnach Khawne	Todsaporn Fuangrod	Evaluating Autoregressive Integrated Moving Average and Nonlinear Autoregressive Neural Network models for Preventative Linear Accelerator Quality Assurance		
T1c-4	P00078	Woo-ram Gill	Young-Jae Ryoo	Design and Development of Wheel Structure for Rail Drive of Agricultural and Industrial AGV		
T1c-5	P00077	Sang-Ho Kim	Young-Jae Ryoo	Steering Control System with Reference-Holder and Bang-Bang Controller for Affordable Automated Guided Vehicle to Track Magnetic Path		
<b>T1d</b>	<b>Room 323B</b>			<b>Session Chair: Yo-Ping Huang , National Taipei Univ. of Technology (Taiwan)</b>		
	<b>IJFS Special Issue I</b>					
	<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>		<b>Paper Title</b>	
	T1d-1	P00006	Chih-Min Lin		Chih-Min Lin	Adaptive Filter Design Using Fuzzy Aggregation Brain Emotional Learning Controllers
	T1d-2	P00020	Wei Peng		Chengdong Li	Distributed and Adaptive Transmission Power Control for Lifetime Maximizem WSNs Using Interval Type-2 Fuzzy Logic
T1d-3	E00002	Meng Joo Er	Meng Joo Er	FLS-Based Fuzzy Synchronization Control for Complex Dynamical Networks under Network Attacks and Actuator Faults		
T1d-4	P00021	Youngchul Bae	Youngchul Bae	Controlling in Chaotic Confliction Model with Fuzzy Function as Coordination of the Third-Party		

**Thursday, November 15 (2:20 PM to 4:00 PM)**

<b>T2a Room 322A</b>				
<b>Information Fusion</b>				<b>Session Chair: Takahiro Yamanoi, Hokkai-Gakuen Univ. (Japan)</b>
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
T2a-1	P00007 Takuya Sako	Katsuhiro Honda	Cluster Crossing Curve for Intuitive Validation in Visual Assessment of Co-cluster Tendencies	
T2a-2	E00016 Rohit Ner	Rohit Ner	Fuzzy Based Wellness Analyzer	
T2a-3	E00014 Keiko Kida	Seiki Ubukata	Basic Consideration of Online and Mini-Batch Algorithms for MMMs-induced Fuzzy Co-clustering	
T2a-4	P00012 Takahiro Yamanoi	Takahiro Yamanoi	Spatiotemporal Difference of Brain Activities in Processing Ideational and Interpersonal Meanings	

  

<b>T2b Room 322B</b>				
<b>Intelligent Navigation System</b>				<b>Session Chair: Jung-Sik Jeong, Mokpo National Maritime Univ. (Korea, Republic of)</b>
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
T2b-1	P00025 Dongwoo Kang	Dongwoo Kang	Study of S-100 Interoperability Level 3, 4 applying method for Smart Navigation	
T2b-2	P00032 Kiyeol Seo	Kiyeol Seo	Performance Prediction of Differential Loran Position Accuracy in eLoran Testbed Environment	
T2b-3	P00037 Joo-Sung Kim	Joo-Sung Kim	Intelligent trajectory analysis considering the influence of external force	
T2b-4	E00020 Namgung Ho	Jung Sik Jeong	Information Exchange System for Efficient Operations of Autonomous Ship	
T2b-5	P00070 Gyugwon Jeong	Taeho Hong	Identification of Maritime Accident Sensitive Area in Korean Coast for SMART-Navigation	
T2b-6	P00073 Jung-Sook Kim	Jung-Sook Kim	Design of the Smart Evaluation Method of Instrumentation Data of Geotechnical Structures using Machine Learning	

  

<b>T2c Room 323A</b>				
<b>Machine Learning and Service Robot Applications</b>				<b>Session Chair: Young Im Cho, Gachon Univ. (Korea, Republic of)</b>
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
T2c-1	E00017 Minwoo Kim	Jin-Woo Jung	A Study on Automated Checking for Upside Down Printed Materials based on Optical Character Recognition	
T2c-2	P00024 Eun Kyeong Kim	Sungshin Kim	Double Transfer Learning and Training Set for Improving the Accuracy of Object Detection	
T2c-3	P00063 <small>Анна Мария Аишурович</small> Bakurova	Young Im Cho	Development of a New Integrated Visibility Estimation Algorithm using DCNN	
T2c-4	P00116 Assiya Zhumanazarova	Young Im Cho	Theoretical analysis of Data Mining techniques for developing prediction models in medicine	

  

<b>T2d Room 323B</b>				
<b>IJFS Special Issue II</b>				<b>Session Chair: Ching-Chih Tsai, National Chung Hsing Univ. (Taiwan)</b>
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
T2d-1	P00017 Yo-Ping Huang	Yo-Ping Huang	Determining Critical Factors of Adolescent Idiopathic Scoliosis by Fuzzy Analytic Network Process	
T2d-2	P00057 Jin Hee Yoon	Jin Hee Yoon	Fuzzy Mediation Analysis for the relation between dysfunctional behavior and performance of work team	
T2d-3	E00012 Huidong Wang	Huidong Wang	A New Multi-attribute Decision Making Method Based on Interval Normal Type-2 Fuzzy Numbers	
T2d-4	P00061 Yong Soo Kim	Yong Soo Kim	Fuzzy Neural Network with different fuzzy learning rates depending on the locations of data	
T2d-5	P00065 Do Khac Tiep	Young-Jae Ryoo	Automated Guided Vehicle to Track Magnetic Path Stability Control of Unmanned Aerial Vehicle with External Payload using Fuzzy- PD Controller	

## Friday, November 16 (9:00 AM to 10:40 AM)

F1a Room 322A				
Advanced Fuzzy Control				Session Chair: <i>Shun-Feng Su</i> , National Taiwan Univ. of Science and Technology (Taiwan)
Paper No.	Presenter	Corresponding Author	Paper Title	
F1a-1	P00075	Wen-June Wang	Van-Phong Vu	A Decentralized Controller Design for A Large-Scale Polynomial System
F1a-2	P00069	Chih-Ching Hsiao	Chih-Ching Hsiao	Dynamic updating Fuzzy-Rough Attribute Reduction Algorithm
F1a-3	P00039	Ching-Chih Tsai	Ching-Chih Tsai	Fuzzy SEIF SLAM for Omnidirectional Mobile Robots
F1a-4	P00010	Changming Zhu	Changming Zhu	Universum-based multi-view matrix learning machine
F1a-5	P00106	Shun Feng Su	Shun Feng Su	Robust Heartbeat Detection for Rehabilitation based Microsoft Kinect

  

F1b Room 322B				
Automatic Machine Learning				Session Chair: <i>Keon Myung Lee</i> , Chungbuk National Univ. (Korea, Republic of)
Paper No.	Presenter	Corresponding Author	Paper Title	
F1b-1	P00026	Myung-Hwan Jang	Sang-Wook Kim	Graph-Based Recommendation on Single-Machine Based Graph Engines: A Performance Study
F1b-2	P00028	Yunseob Shin	Jeehyoung Lee	Citation Recommendation Using Network Embedding
F1b-3	P00058	Yoongyu Lim	Jee-Hyong Lee	Balanced Cost-assigning Neural Networks for Imbalanced data
F1b-4	P00062	Kwang Il Kim	Keon Myung Lee	Fishing Trajectory Pattern Classification Using a Convolution Neural Network
F1b-5	P00064	Jongtae Lim	Jaesoo Yoo	Intelligent Database Platform for Autonomic Machine Learning

  

F1c Room 323A				
IJFS Special Issue III				Session Chair: <i>Meng Joo Er</i> , Nanyang Technological Univ. (Singapore)
Paper No.	Presenter	Corresponding Author	Paper Title	
F1c-1	P00088	BoHyeong Seo	DongWook Lee	A Light and Affordable Human-Robot Teleoperation with Operator's Demonstration
F1c-2	P00042	Xuanming Zhao	Hong Mo	Application of Interval Type-2 Fuzzy Sets in Unmanned Vehicle Visual Guidance Method
F1c-3	P00068	Ning Wang	Ning Wang	Disturbance Observer Based Trajectory Tracking Control of Unmanned Surface Vehicles with Disturbances and Unknown Dead-Zones
F1c-4	P00004	Seokwon Yeom	Seokwon Yeom	Detection and Tracking of Moving Pedestrians with a Drone
F1c-5	P00105	Meng Xu	Haobin Shi	Hierarchical Decision-Making Method of Fuzzy Ant Colony Algorithm for Cooperative Mission Planning of Military UAV (This paper will also be presented in poster session: Pa-1.)

## Friday, November 16 (1:00 PM to 2:40 PM)

<b>F2a Room 322A</b>				<b>Session Chair: <i>Chin-Wang Tao</i>, National Ilan Univ. (Taiwan)</b>
<b>Fuzzy Modeling and Embedded Systems</b>				
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
F2a-1	P00015 Jin-Tsong Jeng	Chen-Chia Chuang	Rainy Day Classifier Using Support Vector Machine	
F2a-2	E00019 Minsub Won	Jee-Hyong Lee	Embedding for Out of Vocabulary Words Considering Contextual and Morphosyntactic Information	
F2a-3	P00036 Sheng-Kai Lin	Chia-Wen Chang	Design and Implementation of Fuzzy Motion Control for A Biped Robot	
F2a-4	P00038 Hsu-Chih Huang	Hsu-Chih Huang	Development of Evolutionary Fuzzy Control Methods for Six-DOF Manipulators	
F2a-5	P00052 Mei-Yung Chen	Mei-Yung Chen	Application of detect facial heartbeat sensor assistance image deep learning to facial pain index discrimination	

  

<b>F2b Room 322B</b>				<b>Session Chair: <i>Yong-Tae Kim</i>, Hankyong Univ. (Korea, Republic of)</b>
<b>Machine Learning &amp; Artificial Intelligence</b>				
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
F2b-1	P00045 Jau-Yang Chang	Jau-Yang Chang	Dynamic Resource Allocation Strategy for Device-to-Device Communication in Large-Scale Internet-of-Things	
F2b-2	E00024 Shang-Chih Lin	Shang-Chih Lin	An Industrial IoT Analysis System Based on Machining Data of Metal Materials	
F2b-3	P00041 Hao-Han Tsau	Hao-Han Tsau	Obstacle Avoidance of Autonomous Four-Wheeled Vehicles Using Machine Vision	
F2b-4	P00107 Jung-Sook Kim	Jung-Sook Kim	Development of the Samrt Drawing Editor for the Interior Design	
F2b-5	P00066 Nishant Chauhan	Byung-Jae Choi	Despeckling and Image Enhancement Algorithm (DIEA) for SAR Imaging	

  

<b>F2c Room 323A</b>				<b>Session Chair: <i>Jeongheon Song</i>, Daegu Univ. (Korea, Republic of)</b>
<b>Rehabilitation Industry &amp; Engineering for People with Disability</b>				
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
F2c-1	P00097 Taeheon Kwak	Hwan Kim	Pegboard recognition system using distance measuring sensor	
F2c-2	P00098 Jung-Hae Choi	Soon-O Kwon	Design of Electric Exercise Machine using Load Impedance based on MOSFET	
F2c-3	P00112 Jung-Hae Choi	Byung-Jae Choi	Assisted Robot Navigation Using Search Algorithm	
F2c-4	P00101 Jeongheon Song	Jeongheon Song	Driving Performance Evaluation using Mini-Steering-wheel Ratio for People with Severe Physical Disabilities	
F2c-5	P00113 Ho-Young Lee	Soon-O Kwon	Electric wheelchair fixing device using electromagnet	

  

<b>F2d Room 323B</b>				<b>Session Chair: <i>Wen-June Wang</i>, National Central Univ. (Taiwan)</b>
<b>IJFS Special Issue IV</b>				
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
F2d-1	P00092 Sunyoung Bu	Sunyoung Bu	A method for optimization based on gradient descent method	
F2d-2	P00013 Geunho Lee	Geunho Lee	3D Adaptive Flocking Rule for Robot Swarms	
F2d-3	P00072 Hye-Young Jung	Hye-Young Jung	Ridge fuzzy regression model	
F2d-4	P00031 Runmei Li	Runmei Li	Long-term Traffic Volume Prediction Based On Type-2 Fuzzy Sets with Confidence Interval Method	

**Friday, November 16 (2:50 PM to 4:30 PM)**

<b>F3a Room 322A</b>				
<b>Intelligent System</b>				<b>Session Chair: <i>Jin-Tsong Jeng</i>, National Formosa Univ. (Taiwan)</b>
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
F3a-1	P00018	Chun-Fei Hsu	Chun-Fei Hsu	Two-Layer Fuzzy Control for an Inertia Wheel Inverted Pendulum
F3a-2	P00019	Jin-Tsong Jeng	Jin-Tsong Jeng	MLP based Deep Associative Memory for Distributional-valued Data
F3a-3	P00030	Jin-Yi Qi	Jyh-Horng Chou	Model for Iron Loss of An Electrical Steel by Using Adaptive Neuro-fuzzy Inference System
F3a-4	P00048	Pohsiang Tsai	Pohsiang Tsai	Agent-based Intelligent Faciliator for Indoor Air Quality Monitoring and Automation using Rulebased Expert Inference Engine
F3a-5	P00050	Yung-Lin Chen	Yung-Lin Chen	Using SBA-BPNN to Predict Stock Price and Classify Enterprise Performance in Stock Market
F3a-6	P00067	Hyunsoo Lee	Hyunsoo Lee	Spatiotemporal Modeling and Prediction of Industrial Disaster using Gaussian Process Regression

  

<b>F3b Room 322B</b>				
<b>Type-2 Fuzzy Logic and Its Application</b>				<b>Session Chair: <i>Hong Mo</i>, Changsha Univ. of Science and Technology (China)</b>
<b>Paper No.</b>	<b>Presenter</b>	<b>Corresponding Author</b>	<b>Paper Title</b>	
F3b-1	P00029	Liang Zhao	Liang Zhao	Interval Type-2 Intuitionistic Fuzzy Random VectorFunctional Link Neural Network Based Spatio-temporal Prediction of Nitrogen Dioxide Concentration in Air
F3b-2	P00053	Hong Mo	Hong Mo	Representation for Type-2 Fuzzy Sets Based on Embedding Unit Fuzzy Sets
F3b-3	P00121	Viet-Ngu Huynh Cong	Keon Myung Lee	Enhancement of Parallel R-tree Construction with MapReduce Framework and GPGPU
F3b-4	E00004	Venkata Subba Reddy Poli	Venkata Subba Reddy Poli	Fuzzy MapReduce Data Mining algorithms