#### **Program Overview**

## December 5, 2018 (Wednesday)

18:00-20:00 Welcome Reception at ANA Crowne Plaza Toyama

# December 6, 2018 (Thursday)

8:50-9:20 Opening Ceremony

9:20-10:20 Plenary Talk by Prof. Yutaka Hata

10:40-12:00 Parallel Sessions

13:00-14:20 Parallel Sessions

14:40-16:00 Parallel Sessions

16:20-18:20 Parallel Sessions

### December 7, 2018 (Friday)

9:00-10:00 Plenary Talk by Prof. Bernard De Baets

10:20-12:00 Parallel Sessions

13:00-14:20 Parallel Sessions

14:40-15:40 Poster Session

16:00-18:00 Parallel Sessions

19:00-21:00 Banquet & Award Ceremony at Hotel Grand Terrace Toyama

### December 8, 2018 (Saturday)

9:00-10:00 Plenary Talk by Prof. Byung-Jae Choi

10:20-12:20 Parallel Sessions

			Dece	ember 6 (Thursday)				
Time	Room 1 (201)	Room 2 (202)	Room 3 (203)	Room 4 (204)	Room 5 (205)	Room 6 (206)	Room 7 (Room S)	
8:50	Opening Ceremony							
9:20	Plenary Talk 1 Prof. Yutaka Hata "How Information Technology helps Clinical Practice ?" Chair: Prof. Noboru Takagi							
10:20				Break				
10:40	Th1-1	Th2-1	Th3-1	Th4-1	Th5-1	Th6-1	Th7-1	
	OS: Soft Computing in Urban and Transport Planning (1) 4 papers	OS: Rough Sets, Granular Computing and Their Applications 3 papers	GS: Visualization 4 papers	OS: Human Symbiotic Systems (1) 4 papers	OS: Intelligent Machine Learning Algorithm (1) 4 papers	OS: Bio-inspired Optimization, Optimization Including Human Factors, and Artificial Life (1) 3 papers	GS: Data Mining (1) 4 papers	
12:00	Lunch Break							
13:00	Th1-2	Th2-2	Th3-2	Th4-2	Th5-2	Th6-2	Th7-2	
	OS: Soft Computing in Urban and Transport Planning (2) 4 papers	OS: Classification and Pattern Recognition using Machine Learning (1) 4 papers	OS: Computing in Biomedical Engineering (1) 4 papers	OS: Human Symbiotic Systems (2) 4 papers	OS: Intelligent Machine Learning Algorithm (2) 4 papers	OS: Bio-inspired Optimization, Optimization Including Human Factors, and Artificial Life (2) 3 papers GS: Bio-Inspire Model (1) 1 paper	OS: Soft Computing Techniques for Computer Vision (1) 4 papers	
14:20				Break				
14:40	Th1-3	Th2-3	Th3-3	Th4-3	Th5-3	Th6-3	Th7-3	
	OS: Soft Computing in Urban and Transport Planning (3) 3 papers GS: Intelligent Transportation Systems (1) 1 paper	OS: Classification and Pattern Recognition using Machine Learning (2) 4 papers	OS: Computing in Biomedical Engineering (2) 4 papers	GS: Intelligent Systems 4 papers	GS: Complex Systems, Distributed Systems 4 papers	OS: Intelligence Infrastructure for Data Mining 3 papers GS: Data Mining (2) 1 paper	OS: Soft Computing Techniques for Computer Vision (2) 4 papers	
16:00				Break				
16:20	Th1-4	Th2-4	Th3-4	Th4-4	Th5-4	Th6-4	Th7-4	
	GS: Bio-Inspire Model (2), Evolutionary Computing 6 papers	S-OS: A Tribute to Professor Lotfi A. Zadeh: From Perfection to Perception Based Modeling -A Grand Paradigm Shift 5 papers	OS: IT Convergence Applications 6 papers	OS: Affective Engineering and its Interactive Approach 6 papers	GS: Fuzzy Control, Fuzzy Sets and Logic, Fuzzy Systems 6 papers	GS: Machine Learning (1) 6 papers	OS: Recent Trends of Clustering Methodologies (1) 5 papers GS: Decision Making and Risk Management (1) 1 paper	

			Dec	cember 7 (Friday)				
Time	Room 1 (201)	Room 2 (202)	Room 3 (203)	Room 4 (204)	Room 5 (205)	Room 6 (206)	Room 7 (Room S)	
9:00	Plenary Talk 2 Prof. Bernard De Baets "The role of monotonicity in data science" Chair: Prof. Yusuke Nojima							
10:00				Break				
10:20	Fr1-1	Fr2-1	Fr3-1	Fr4-1	Fr5-1	Fr6-1	Fr7-1	
	OS: Human centric industrial and consumer applications 5 papers	OS: Classification and Pattern Recognition using Machine Learning (3) 4 papers	OS: Intelligent Systems for Robotics and Vehicles 5 papers	OS: Soft computing on an embedded system 4 papers GS: Education and Training 1 paper	OS:Sensing and Bio- Application 5 papers	GS: Kansei Engineering, Artificial Intelligence 5 papers	OS: Recent Trends of Clustering Methodologies (2) 5 papers	
12:00	Lunch Break							
13:00	Fr1-2	Fr2-2	Fr3-2	Fr4-2	Fr5-2	Fr6-2	Fr7-2	
	OS: Intelligent Support System with AI and IoT Technologies (1) 4 papers	OS: Classification and Pattern Recognition using Machine Learning (4) 3 papers	OS: Application to Managerial Decision Making 4 papers	OS: Neuroscience & Bioinformatics (1) 4 papers	OS: Image tracking and load estimation 4 papers	OS: Basic and Application of Bio- information 3 papers	GS: Human-Computer Interaction and Interface (1) 4 papers	
14:20	Break							
14:40	Poster Session & OS: Human factors and ergonomics (4 papers) @ 3F Foyer  Coordinator: Hiromi Ban (Nagaoka University of Technology, Japan)							
15:40								
16:00	Fr1-3	Fr2-3	Fr3-3	Fr4-3	Fr5-3	Fr6-3	Fr7-3	
	OS: Intelligent Support System with Al and IoT Technologies (2) 5 papers	OS: Robot Integration System for Symbiosis with human (1) 4 papers GS: Robotics (1) 2 papers	OS: Advanced Biomedical Engineering and Human Assistive Technology (1) 4 papers GS: Biometrics 2 papers	OS: Neuroscience & Bioinformatics (2) 6 papers	GS: Modeling and Simulation, Vision and Sensors 5 papers	GS: Machine Learning (2), Pattern Recognition 4 papers	OS: Human Symbiotic Systems (3) 4 papers GS: Human-Computer Interaction and Interface (2) 2 papers	
18:00								
19:00	Banquet @ Hotel Grand Terrace Toyama							

December 8 (Saturday)									
Time	Room 1 (201)	Room 2 (202)	Room 3 (203)	Room 4 (204)	Room 5 (205)	Room 6 (206)	Room 7 (Room S)		
9:00		Plenary Talk 3 Prof. Byung-Jae Choi "Design of Simple Structured Fuzzy Logic Control Systems and Their Applications" Chair: Prof. Young Im Cho							
10:00		Break							
10:20	Sa1-1	Sa2-1	Sa3-1	Sa4-1	Sa5-1	Sa6-1			
	GS: Social Systems, Multi-Agent Systems 6 papers	OS: Robot Integration System for Symbiosis with human (2) 3 papers GS: Robotics (2) 2 papers	OS: Advanced Biomedical Engineering and Human Assistive Technology (2) 3 papers GS: Brain Science 2 papers	GS: Decision Making and Risk Management (2) 5 papers	GS: Computational Intelligence, Machine Learning (3) 4 papers	GS: Data Mining (3), Cognitive Science 6 papers			
12:20									