

Time Table (January 25, 2022)

	Room A	Room B	Room C	Room D	Room E	Room F	Room G
09:00-10:30	OS13 AROB: Control System Security and Encrypted Control	GS9 Cognitive science Chair: K. Suzuki	OS29 ISBC: Mathematics and physics of biological and abiological systems Chair: K. Naitoh	OS31 SWARM: Behavioral measurement and modeling technology to consider individual cognitive functions of organisms Chair: R. Fujisawa	GS15 Intelligent control Chair: G. Yang	GS18 Mobile robots 1 Chair: B. Haghighat Will end at 11:45	GS29 Sensor and multi-sensor data fusion Chair: S. Sagara
10:30-10:45	Chair: K. Sawada	Break			Break		
10:45-12:15	Invited Talks 9:00 - 9:30 Dr. Kiminao Kogiso 9:30 - 10:00 Prof. Jun Ueda	OS16 AROB: Intuitive Human-System Interaction Chair: M. Yokota	OS25 ISBC: Chemical and biochemical complexity Chair: K. Naitoh		OS1 AROB: Advanced Applications of Macihne Learning Chair: K. Hashimoto Will start at 11:00	GS4 Artificial life Chair: L. Sinapayen Will start at 11:00	GS24 Parallel and distributed computing Chair: M. Köppen Will start at 11:00
12:15-13:00	Break						
13:00-14:45	OS39 SWARM: Swarm and Bio-inspired Systems 1 Chair: J. Ogawa	OS6 AROB: Autonomous Driving system and Control Chair: H. Ogai	OS30 ISBC: Medication based on big data and AI Chair: S. Tsuji	GS5 Bioinformatics and Medical informatics 1 Chair: R. Saegusa	GS12 Human-machine interaction and collaboration 1 Chair: V. Muthugala	OS21 AROB: System Sensing and Its Applications 1 Chair: K. Oiwa	GS26 Robot vision and image processing 2 Chair: N. Shigei
14:45-15:00	Break						
15:00-16:30	OS34 SWARM: e-ASIA Joint Research Project 1: Informational system for management of flood and landslide disaster areas using a distributed heterogeneous robotic team Chair: J. Suthakorn	GS1 Agent-based modelling Chair: K. Nakamura	OS12 AROB: Computational intelligence and cognitive science for human biosignals and human well-being Chair: T. Hiroyasu	GS6 Bioinformatics and Medical informatics 2 Chair: K. Naitoh	GS23 Neurocomputing technologies and its application for hardware Chair: T. Omori	OS22 AROB: System Sensing and Its Applications 2 Chair: S. Matsuno	GS28 Self-organization Chair: Y. Yamauchi
16:30-16:45	Break						
16:45-17:00	Opening Ceremony						
17:00-17:50	Plenary Speech Biomorphic Robot Controls: Event Driven Model Free Deep SNNs for Complex Visuomotor Tasks Prof. Rüdiger Dillmann, KIT/FZI Karlsruhe, Germany Chair: Fumitoshi Matsuno						
17:50-18:10	Break						
18:10-19:40	OS35 SWARM: e-ASIA Joint Research Project 2: Informational system for management of flood and landslide disaster areas using a distributed heterogeneous robotic team Chair: F. Matsuno Invited Talk 18:55 - 19:25 Prof. Evgeni Magid	GS8 Bio-mimetics and Brain science Chair: K. Ikeda	GS30 Swarm intelligence Chair: D.T. Tran				

OS: Organized Session

GS: General Session

Time Table (January 26, 2022)

	Room A	Room B	Room C	Room D	Room E	Room F	Room G
09:00-10:45	GS7 Bio-inspired robotics Chair: S. Shigaki	GS16 Machine Learning 1 Chair: T. Nakashima	OS26 ISBC: Complexity underlying flows Chair: K. Naitoh	OS20 AROB: Robotics: Technologies and Intelligence Chair: M.K. Habib	GS19 Mobile robots 2 Chair: K. Yoneda	GS21 Multi-agent systems Chair: H. Yonenoh	GS25 Robot vision and image processing 1 Chair: A.R. Choudhury
10:45-11:00	Break						
11:00-11:50	Plenary Speech Balancing Control in Systems Dr. Seul Jung, Chungnam National University, Korea Chair: Hee-hyol Lee						
11:50-13:15	Break						
13:15-14:45	OS14 AROB: Human-Centered Robotics-I Chair: S. Nisar Invited Talk 13:15 - 13:45 Dr. Ali Israr	OS33 SWARM: Control for Open Swarm Intelligence Chair: S. Azuma	OS27 ISBC: Human and virtual systems Chair: H. Miyachi	OS9 Biomimetic Machines and Robots I Chair: K. Watanabe	OS23 Vehicle Control Chair: S. Sagara	GS11 Evolutionary computations (Genetic algorithm) Chair: E. Sangati	GS14 Identification and Estimation Chair: H.-H. Lee
14:45-15:00	Break						
15:00-15:50	Plenary Speech Exploring online social ecosystems through bio-inspired perspectives Dr. Mizuki Oka, University of Tsukuba, Japan Chair: Takaya Arita						
15:50-16:15	Break						
16:15-17:45	OS11 AROB: Brain Theory from ALIFE Chair: H. Iizuka		OS28 ISBC: Human system Chair: T. Ohira	OS10 AROB: Biomimetic Machines and Robots II Chair: K. Watanabe	OS36 SWARM: Heterogeneity in Collective Systems Chair: T. Shimada	GS2 Artificial intelligence 1 Chair: H. Miyachi	GS13 Human-machine interaction and collaboration 2 Chair: J. Wilson
17:45-18:00	Invited Talk 16:20 - 16:50 Dr. Nathaniel Virgo		Break			Break	
18:00-19:45		OS15 AROB: Human-Centered Robotics-II Chair: S. Nisar Invited Talk 18:00 - 18:30 Dr. Leonardo De Mattos	OS38 SWARM: Snake Robots Chair: T. Kamegawa Invited Talk 19:15 - 19:45 Dr. Kamilo Melo	GS3 Artificial intelligence 2 Chair: K. Ito		GS31 Swarm robotics Chair: D. Kurabayashi	

OS: Organized Session

GS: General Session

The Twenty-Seventh International Symposium on Artificial Life and Robotics 2022 (AROB 27th 2022),
The Seventh International Symposium on BioComplexity 2022 (ISBC 7th 2022),
The Fifth International Symposium on Swarm Behavior and Bio-Inspired Robotics 2022 (SWARM 5th 2022)
ONLINE, January 25-27, 2022

Time Table (January 27, 2022)

	Room B	Room C	Room D	Room E	Room G	Room H
9:00-10:30	OS32 SWARM: Collective Intelligence in Living/Non-Living agents Chair: T. Ikegami Will start at 9:10	OS3 AROB: AI in Life Sciences 1 Chair: T. Yamakawa Invited Talk 10:00 - 10:30 Prof. Ryohei KANZAKI	OS37 SWARM: Motion Analysis and Control of Advanced Robotic Systems Chair: F. Asano	OS18 AROB: Robotics with Intelligence and/or Informatics 1 Chair: T. Kinugasa	OS2 AROB: Advanced Technology in Rescue Robot Competition Chair: N. Sato	OS7 AROB: Bio-inspired theory and applications (1) Chair: K. Yamamori
10:30-10:45	Invited Talk 9:15 - 9:45 Prof. Deborah M. Gordon	Break		Break		Break
10:45-12:00		OS5 AROB: AI in Life Sciences 3 Chair: K. Fujiwara		OS19 AROB: Robotics with Intelligence and/or Informatics 2 Chair: M. Minami		OS8 AROB: Bio-inspired theory and applications (2) Chair: K. Yamamori
12:00-12:30	Break					
13:00-14:45	OS40 SWARM: Swarm and Bio-inspired Systems 2 Chair: Y. Tamura Invited Talk 13:00 - 13:30 Dr. Masahiro Takinoue		OS17 AROB: Learning and Control Chair: H.-H. Lee	GS10 Control techniques Chair: W. Cao	GS17 Machine Learning 2 Chair: K. Watanabe	OS24 AROB: Vision and robot control Chair: M. Yokomichi
14:45-15:00	Break					
15:00-16:45	OS41 SWARM: Swarm and Bio-inspired Systems 3 Chair: T. Yasuda Invited Talk 15:00 - 15:30 Dr. Hiroto Tanaka	GS27 Robotic Mechanism Chair: M.C. Lee	GS20 Motion planning and navigation Chair: H. Miyachi	GS22 Neural networks Chair: F. Uwano		

OS: Organized Session

GS: General Session