## **Program**

Time: August 30-September 1, 2018

Venue: Sheraton Shenyang South City Hotel, China

## Registration

Time: 09:00-22:00, August 30, 2018 (Thursday); Place: Lobby, Ground Floor

## **Annual Meeting of Technology Innovation Strategic Alliance for Robot Industry**

Time: 18:30-20:30, August 30, 2018 (Thursday); Place: Meeting Hall 1, 1st Floor

## **Opening Ceremony**

Time: 09:00-09:30, August 31, 2018 (Friday); Place: Conference Hall, 2<sup>nd</sup> Floor

Key	mote	Foru	m
176	mote	roru	ш

Time: 09:30-12:00, August 31, 2018 (Friday); Place: Conference Hall, 2<sup>nd</sup> Floor

e: 09:30-12:00, A	ugust 31, 2018 (Friday); Place: Conference Hall, 2 <sup>na</sup> Floor
Moderator	Dr. Ji Zhao, President, Northeastern University, China
09:30-09:35	Moderator's Introduction
09:35-09:55	<i>Title:</i> From Robotizing Humans to Humanizing Robots <i>Dr. Abderrahmane Kheddar,</i> Academician, National Academy of Technology of Fra (NATF), France; Director, CNRS-AIST Joint Robotics Laboratory, Japan
09:55-10:15	<i>Title:</i> From Automation to Autonomy: Intelligent Robotics for the Next Generation <i>Dr. Sethu Vijayakumar</i> FRSE, Director, Edinburgh Centre for Robotics Edinburgh University; Co-Director of The Alan Turing Institute, UK
10:15-10:35	Dr. Jie Zhao, Professor of Harbin Institute of Technology; Leader of National Key Researand Development Plan "Intelligent Robot" Key Special Expert Group, China
10:35-10:55	Title: Vibration Control of Robotics Motion and Its Application to Smart Hospital  Dr. Kazuhiko Terashima, Vice President of Research Affairs, Toyohashi University of Technology, Japan
10:55-11:15	Title:  Dr. Chengliang Liu, Professor of Shanghai Jiao Tong University; Deputy Leader of Nation Key Research and Development Plan "Intelligent Robot" Key Special Expert Group, Chin
11:15-11:35	Title: State of the Art Technology for Driverless Industrial Vehicles  Mr. Mike Schaefer, SVP and CTO, Autonomous Solutions, USA

11:35-11:50	Development Introduction of Robot Industry in Shenyang City
11:50-12:00	Discussion

Overseas High-level Talents and Project Matchmaking Fair			
Time: 14:00-18:00, August 31, 2018 (Friday); Place: Conference Hall, 2 <sup>nd</sup> Floor			
Moderator	Mr. Zhang Shuwei, Management Committee Deputy Director, Shenyang National University S&T City, China		
14:00-14:05	Moderator's Introduction		
14:05-14:15	Welcome Speech by  Mr. Zhao Kai, Director, China Council for the Promotion of International Trade Shenyang Sub-council, China		
Shenyang Policy Introduction for High-level Talents  14:15-14:25  Mr. Jia Jia, Deputy Director, Talent Division Two, Organization Department of Shenya  Municipal Committee, China			
14:25-14:45  Title: Towards Autonomous Industrial Service Robotics  Dr. Huan Tan, Lead Scientist, GE Global Research, USA			
14:45-15:05	Title: Telepresence Robots for the Elderly: A Project Across Europe and Australia  Dr. Pradeep Kumar Ray, 1000 Talent Distinguished Professor, University of Michigan Joint Institute, Shaanghai Jiao Tong University, China; Honorary Professor and Founder WHO Collaborating Centre on eHealth, UNSW, Australia		
15:05-15:25	Title: Robotic Grinding, Polishing and Deburring, the Next Big Robotics Application  Mrs. Sera Zhou, Global Marketing Manager, 3M Abrasive Systems Division, USA		
15:25-15:45	Title: Advanced Manufacturing and Factory Automation with Robotics and SAP  Dr. Asuman S iinb iil, IoT/Robotics/Manufacturing, SAP Labs, USA		
15:45-16:05	Title: Self-Driving and Self-Flying Vehicles Using Visually and Physically Realistic Simulations  Dr. Shital Shah, Principal Research Engineer, Microsoft Research, USA		
16:05-16:25	Title: Robotics for the Logistics Industry: Making Fixed Automation Flexible  Mr. Lukasz Drewnowski, Business Line Manager-China, Service Robotics - Robotics  Distribution & Fulfilment, ABB Engineering (Shanghai) Ltd., Poland		
16:25-16:45	Title: Intelligent Surface Vehicle for Water Quality Monitoring  Professor Yong Yue, Head, Department of Computer Science and Software Engineering,		

	Xi'an Jiaotong-Liverpool University (XJTLU), China
16:45-18:00	Free Communication

Hunnan Night T	Talk (High-end Experts' Talk)			
Time: 18:00-20:0	00, August 31, 2018 (Friday); Place: Conference Hall, 2 <sup>nd</sup> Floor			
Part One: City l	Promotion			
Moderator	Mr. Li Jun, Director, Shenyang Hunnan District Municipal People's Government, China			
Address	Speech by  Mr. Yan Bingzhe, Deputy Mayor, Shenyang Municipal People's Government, China			
Promotion	Speech by  Mr. Zhao Ge, Management Committee Director, Shenyang National University S & T City, China			
_	-end Experts' Talk unities and Challenges: Create Robotic Industry Base with International Competitiveness			
Moderator	Dr. Xiaodan Mei, President, BIT Congress Inc., China			
	<i>Mr. Li Jun</i> , Director, Shenyang Hunnan District Municipal People's Government, China			
	Dr. Sethu Vijayakumar FRSE, Director, Edinburgh Centre for Robotics Edinburgh University; Co-Director of the Alan Turing Institute, UK			
Guests	Dr. Huan Tan, Lead Scientist, GE Global Research, USA			
	<i>Dr. Daokui Qu</i> , Founder and CEO, SIASUN Robot and Automation Co. Ltd.; Deputy Director of the National Engineering Research Center on Robotics; Chairman, Chinese Robot Industry Alliance, China			
Dr. Ji Zhao, President, Northeastern University, China				

Module 1: Smart Robotics and Industry Automation			
Time: 08:30-12:00, September 1, 2018 (Saturday); Place: Conference Hall 4, 1st Floor			
Chair	Chair Dr. Huan Tan, Lead Scientist, GE Global Research, USA		
08:30-08:35	Chair's Introduction		
00.27.00.07	Title: Humanoid Robotics in Large-scale Manufacturing: The AIRBUS Case Study		
08:35-09:05	Dr. Abderrahmane Kheddar, Academician, National Academy of Technology of France (NATF),		

	France; Director, CNRS-AIST Joint Robotics Laboratory, Japan
09:05-09:35	Title: Study on Tactile Terrain Surface Classification for Ground Mobile Robots  Dr. Xiangrong Xu, Professor, Anhui University of Technology, China
09:35-10:05	Title: Digitizing Construction: Applying Robotics to the 21 <sup>st</sup> -Century Construction Site  Dr. Bharath Sankaran, Co-Founder (CTO), Scaled Robotics, Spain
10:05-10:20	Coffee Break
10:20-10:50	Title: Boosting Service Robotics with Cloud Computing - New Visions into The Fourth Industrial Revolution Dr. Gabriele Ermacora, CEO, Hotblack Robotics, Italy
10:50-11:20	Title: Robotics and AI in Mobile Working Machine Industry  Dr. Reza Ghabcheloo, Associate Professor, Tampere University of Technology, Finland
11:20-11:50	Title: Increase Productivity and Energy Efficiency with Smart Robot Motion  Mr. Georg Friedrich Stieler, Managing Director, STIELER, Germany
11:50-12:00	Discussion

Module 2: Smart Innovation and Key Techniques in Robotics				
Time: 08:30-12:	10, September 1, 2018 (Saturday); Place: Conference Hall 6, 1 <sup>st</sup> Floor			
Chair	Dr. Zheng Fang, Associate Professor, Northeastern University, China			
08:30-08:35	Chair's Introduction			
	Title: Shared Autonomy: The Future of Interactive Robotics			
08:35-09:05	Dr. Sethu Vijayakumar, Fellow of the Royal Society of Edinburgh; Director of Edinburgh Centre for			
	Robotics Edinburgh University, UK			
09:05-09:30	Title: System Architecture for Human Robot Interaction and its Impact on User Experience			
09:03-09:30	Mr. Timothy Gifford, Founder and CTO, Movia Robotics, USA			
	Title: Toward Network-based Humanoid 'MAHRU' Integrated with Intelligence for Autonomy			
09:30-09:55	Dr. Bum-Jae You, Director, Center of Human-centered Interaction for Coexistence; Principal			
	Research Scientist, Center for Intelligent Robotics, KIST, South Korea			
	Title: New Approach to Living Safety Using Cognitive, Connective, and Collaborative Living Labs			
09:55-10:20	Dr. Yoshifumi Nishida, Senior Researcher, Artificial Intelligence Research Center, National Institute			
of Advanced Industrial Science and Technology (AIST), Japan				
10:20-10:30	Coffee Break			

10:30-10:55	Title: Application of Pattern Matching of Weld Pool to Seam Tracking in Robotic Welding  Dr. Satoshi Yamane, Associate Professor, Saitama University, Japan
10:55-11:20	Title: Sound Source Localization for Humanoid Robot  Dr. Youngjin Park, KEPCO Endowed Chair Professor, Director, Center for Noise and Vibration  Control+, Department of Mechanical Engineering, KAIST, South Korea
11:20-11:45	Title: Further Consideration on the Current Control Loop in Joint Motors of Robotic Systems  Dr. Zhihong Man, Professor, Faculty of Science, Engineering and Technology, Swinburne University of Technology, Australia
11:45-12:10	Dr. Zheng Fang, Associate Professor, Northeastern University, China

Module 3: AI and Robotics				
Time: 13:30-16:00, September 1, 2018 (Saturday); Place: Conference Hall 4, 1st Floor				
Ch - i	D. B. Chalada Assaira Defense Tennes Heiserica (T. J. J. J.			
Chair	Dr. Reza Ghabcheloo, Associate Professor, Tampere University of Technology, Finland			
13:30-13:35	Chair's Introduction			
Title: Collective Intelligence for Hyperconnected IoT and Mobile Edge Computing				
13:35-14:05	Dr. Hee Yong Youn, Director of Ubiquitous computing Technology Research Institute (UTRI),			
	College of Software, Sungkyunkwan University, South Korea			
	Title: Management and Policy Challenges in the Fourth Industrial Revolution: Mitigating Risk,			
	Building Adaptive Capacity			
14:05-14:30	Dr. Takis Damaskopoulos, Executive Director, European Institute of Interdisciplinary Research,			
	France			
14:30-14:55	Title: Building a Robotics Startup, The Decathlon for Startup  Mr. Thomas Aubra: CTO, MV, DODOT, France			
	Mr. Thomas Aubry, CTO, MV ROBOT, France			
14:55-15:20	Title: AI and Robotics			
11.33 13.20	Dr. Jun Miyazaki, CEO, OrangeTechLab, Japan			
	Title: The Role of Active Vision Systems and It's Applications in Robotics and Autonomous Driving			
15:20-15:45	Dr. Hafiz Muhammad Owais, Advance Innovation Center for Intelligent Robots and Systems, China			
15:45-16:00	Discussion			

Module:	4: Heal	lth & N	/ledical	Robotics

Time: 13:30-16:00, September 1, 2018 (Saturday); Place: Conference Hall 6, 1st Floor

Chair	Dr. Shijie Guo, 1000 Talent Distinguished Professor, Hebei University of Technology, China
13:30-13:35	Chair's Introduction
13:35-14:05	Title: Medical Round Supporting Robot "Terapio" and Assisted Gait Training Rob "Niltwamor and Lucia" to Build Smart Hospital  Dr. Kazuhiko Terashima, Vice President of Research Affairs, Toyohashi University of Technology, Japan
14:05-14:30	Title: Developing Robot Companions for Elderly  Dr. Jim Torresen, Professor, Department of Informatics, University of Oslo, Norway
14:30-14:55	Title: The Future of Augmented Reality for Surgery and Its Impact  Dr. Abdelkrim Belhaoua, CEO, Shenzhen Mars Medical Robot, China
14:55-15:20	Title: Biomimetic Design of A Chest Carrying Nursing-care Robot for Transfer Task  Dr. Shijie Guo, 1000 Talent Distinguished Professor, Hebei University of Technology, Chin
15:20-15:45	Title: Human-robot Interaction based on EEG and EMG  Dr. Hong Wang, Professor, Northeastern University, China
15:45-16:00	Discussion