2011 IEEE International Conference on Robotics and Biomimetics

December 7-11, 2011, The Mövenpick Resort and Spa Karon Beach, Phuket Island, Thailand

Wednesday, December 7, 2011

12:00 - 18:30 Registration Desk Open

16:00 - 16:15 **Opening Ceremony** 16:15 - 17:30 **Keynote Talk I Blind**

Keynote Talk I Blind Spot of Biomimetic Approach

(Ballroom II&III)

Makoto Kaneko, Osaka University, Japan

Keynote Talk II Peripheral Nerve Interface Device for Robotic Arms

William C. Tang, University of California, Irvine, USA

Chair: Aiguo Ming

Thursday, December 8, 2011

08:30 - 9:30 Plenary Talk I: MEMS Robotic Inchworm for Cortical Neural Prosthesis										
Yu-Chong Tai, California Institute of Technology, USA (Ballroom II&III)										
Chair: Wen J. Li										
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7			
09:45	TA1-1	TA1-2	TA1-3	TA1-4	TA1-5	TA1-6	TA1-7			
	Interfaces for	Medical	Walking Robots I	Soft Robots	Sensing for	Control of	Biomimetic			
11:00	Teleoperations	Robotics I			Detection and	Multiple Robots	Control			
11.00					Localization I					
		Coffee Break		1	1	1				
11:15	TA2-1	TA2-2	TA2-3	TA2-4	TA2-5	TA2-6	TA2-7			
11.13	Control of	Medical	Walking Robots II	Vision for	Sensing for	Motion Planning	Biomimetics I			
12:30	Teleoperations	Robotics II		Robot	Detection and	and Control for				
12.30				Navigation	Localization II	Mobile Robots I				
	Lunch Break									
13:40	TP1-1	TP1-2	TP1-3	TP2-4	TP1-5	TP1-6	TP1-7	TP-P		
13.40	Telerobotics	Medical	Walking Robots	Image Analysis	Sensing for	Motion Planning	Biomimetics II	Poster		
15.10	for Medical	Robotics III	III		Detection and	and Control for		Session I:		
15:10	Applications				Localization	Mobile Robots II		Robotics		
Coffee Break										
15:40	TP2-1	TP2-2	TP2-3	TP2-4	TP2-5	TP2-6	TP2-7			
15.40	Multiple and	Medical	Robotic Systems	3D Image	Sensing for	Motion Planning	SLAM			
17:10	Swarm Robots	Robotics IV		Analysis	Detection and	and Control for				
17.10					Localization IV	Mobile Robots				

Friday, December 9, 2011

08:30 - 09:30 Plenary Talk II: A Dance Partner Robot and its Real World Application "PaDY"											
Kazuhiro Kosuge, Tohoku University, Japan (Ballroom II&III) Chair: Zhidong Wang											
Chair. Zhuong wang											
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7				
	FA1-1	FA1-2	FA1-3 [OS]	FA1-4	FA1-5	FA1-6	FA1-7				
00.45	Grasping and	Medical	The Development	Micro/Nano	Biomimetic	Control of	Flying Robots I				
09:45	Manipulation I	Robotics V	Towards Sensory	Sensors and	Sensing	Flexible Robots					
-	-		Based Natural	Systems							
11:00			Walking								
			Humanoid Robots								
	Coffee Break										
11.15	FA2-1	FA2-2	FA2-3	FA2-4	FA2-5	FA2-6	FA2-7				
11:15	Grasping and	Assist and	Mobile Robots III	Micro/Nano	Tactile Sensing	Control of	Flying Robots				
12.20	Manipulation	Rehabilitation		Actuation and		Mobile and	II				
12:30	II	Robotics I		Manipulation		Aerial Robots					
		Lunch Break	•				•	•			
13:40	FP1-1	FP1-2	FP1-3	FP1-4	FP1-5	FP1-6	FP1-7	FP-P			
13:40	Grasping and	Assist and	Mobile Robots IV	Vision for	Human	Underwater	Service Robots	Poster			
15.10	Manipulation	Rehabilitation		Robot Control	Detection	Robots I		Session II:			
15:10	III	Robotics II		I				Biomimetics			
	Coffee Break										
15:40	FP2-1	FP2-2	FP2-3	FP2-4	FP2-5	FP2-6	FP2-7				
13:40	Grasping and	Assist and	Mobile Robots V	Vision for	Sensor	Underwater	Recent Results				
17.10	Manipulation	Rehabilitation		Robot Control	Network	Robots II	Session I				
17:10	ĪV	Robotics III		II							

Saturday, December 10, 2011

08:30 - 09:30 Plenarv Talk III: Motion and Pattern Formation of Micro Bio-Robots

Chih-Ming Ho, University of California, Los Angeles, USA (Ballroom II&III)

Chair: T. J. Tarn

	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7		
	SA1-1	SA1-2	SA1-3	SA1-4	SA1-5	SA1-6	SA1-7		
09:45	Robot Design	Assist and	Humanoid Robots	Video Session	Motion	Hardware and	Recent Results		
-	and Control	Rehabilitation	I	I: Biomimetics	Measurement	Software	Session II		
11:00		Robotics IV			and Estimation	Architecture for			
Coffee Break									
	SA2-1	SA2-2	SA2-3	SA2-4	SA2-5	SA2-6	SA2-7		
11:15	Motion	Robot Force	Humanoid Robots	Video Session	Sensing for	Haptics	Recent Results		
-	Control of	Control	II	II: Robotics	Tracking	Interfaces	Session III		
12:30	Robots								
Lunch Break									
	SP1-1	SP1-2	SP1-3	SP1-4	SP1-5	SP1-6			
13:40	Robot	Novel	Mobile Robots I	Mapping	Human-Robot	Intelligent			
-	Learning	Actuators I			Interaction I	Control of			
15:10						Robots			
Coffee Break									
	SP2-1	SP2-2	SP2-3	SP2-4	SP2-5	SP2-6			
15:30	Modular and	Novel	Mobile Robots II	Vision for	Human-Robot	Control for			
-	Multi-Agent	Actuators II		Object	Interaction II	Human-Robot			
17:00	Systems			Tracking		Interaction			
18:30 - 20:30 Conference Banquet (Ballroom II&III									

Sunday, December 11, 2011

15:00 - 17:00 Workshop: Advances in Robotics and Biomimetics Chair: Yong Yu

(Ballroom II&III)

^{\$} 8 minutes (Speech: 5 minutes, Q&A: 3 minutes) are scheduled for each video presentation \$ 15 minutes (Speech: 12 minutes, Q&A: 3 minutes) are scheduled for each oral presentation