

Tuesday 21 August 2012

	Reception room (RC)	Old Council Chamber
09:30	Opening (RC)	
10:00	Plenary session I (RC): Professor Frank L. Lewis	
11:00	Coffee break (Great Hall)	
11:30	Bio-Inspired	Humanoid 1
12:30	Lunch	
14:00	Humanoid 2	Control
15:30	Coffee break	
16:00	Machine Learning	Panel: education
17:30	Break	
18:30	Reception (Great Hall)	
19:00	Plenary session II (RC): Professor Shuzhi Sam Ge	
20:00	FIRA launch (buffet: Great Hall)	
21:30	Close	

BIO-INSPIRED

Chair: Anthony Prescott
Co-chair: Chris Harris

11:30 - DEJANIRA ARAIZA-ILLAN
Bio-inspired Autonomous Navigation and Escape from Pursuers with Potential Functions.

11:50 - CHRISTOPHER HARRIS
Biomimetics of Choice Behaviour for Autonomous Agents.

12:10 - MARTIN J. PEARSON
Predictive Prey Pursuit in a Whiskered Robot.

HUMANOID 1

Chair: David A Rosenblueth
Co-chair: TBD

11:30 - CHRIS IVERACH-BRRETON
Ice Skating Humanoid Robot.

11:50 - ADALBERTO LLARENA
Model Checking Applied to Humanoid Robotic Soccer.

12:10 - MUHAMMAD NASIRUDDIN MAHYUDDIN
A Novel Adaptive Control Algorithm in application to a humanoid robot arm.

HUMANOID 2

Chair: Chung-Hsien Kuo
Co-chair: Torbjørn Dahl

14:00 - TOBJØRN S. DAHL
A force-distance model of humanoid arm withdrawal reflexes.

14:20 - CHUNG-HSIEN KUO
Process Modeling and Task Execution of FIRA Weight-Lifting Games with a Humanoid Robot.

14:40 - BI SHENG
Walking Control Method of Humanoid Robot Based on FSR Sensors and Inverted Pendulum Model.

15:00 - ALAN BROWN
Building a Kinematic Model of a Robot's Arm with a Depth Camera.

CONTROL

Chair: Jing Na
Co-chair: Carlos Santos

14:00 - CARLOS SANTOS
Adaptive Self-triggered Control of a Remotely Operated Robot.

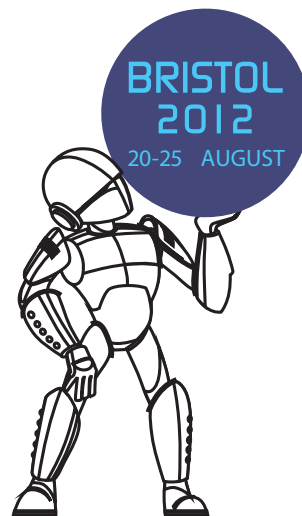
14:20 - P. MUNOZ BENAVENT
Dual-rate Non-linear High Order Holds for Visual Servoing Applications.

14:40 - HAIFA MEHDI
New Robust Tracking Control for Safe Constrained Robots under Unknown Impedance Environment.

15:00 - JING NA
Repetitive Control for Systems with Time-delays and Application to Robotic Servo Motor.

APPLICATION

Chair: Kim DongHan
Co-chair: TBD



Wednesday 22 August 2012

	Reception room (RC)	Old Council Chamber
09:30	Plenary session III (RC): Professor Alois Knoll	
10:30	Coffee break (Great Hall)	
11:00	Education	Application
12:00	Lunch & Posters (Great Hall)	
14:00	Planning	Panel: safety and verification
15:30	Coffee break (Great Hall)	
16:00	HRI	Navigation
17:00	Closing (RC)	
18:00	Break	
19:00	Drinks (Great Hall)	
20:00	Dinner (Great Hall)	
21:30	Close	

HRI

Chair: Michael Walters
Co-chair: Ute Leonards

16:00 - THOMAS M. W. BURTON
Sensitivity Analysis of a Parametric Hand Exoskeleton Designed to Match Natural Human.

16:20 - MICHAEL WALTERS
My Familiar Robot Companion: Preferences and Perceptions of CHARLY, a Companion Humanoid Autonomous Robot for Living with You.

16:40 - UTE LEONARDS
Engaging With Robots While Giving Simple Instructions.

NAVIGATION

Chair: Inaki Rano
Co-chair: Marek Ososinski

16:00 - INAKI RANO
A wandering Braitenberg vehicle 2b that densely covers a bounded workspace.

16:20 - PAU MUNOZ-BENAVENT
Mobile Robot Obstacle Avoidance based on Quasi-Holonomic Smooth Paths.

16:40 - MAREK OSOSINSKI
Real-time Autonomous Colour-based Following of Ill-defined Roads.

11:00 - FLORIAN VAUSSARD
Cutting Down the Energy Consumed by Domestic Robots: Insights from Robotic Vacuum Cleaners.

11:20 - MOHAMAD KHAIRI ISHAK
Minimizing jitter in Ethernet using a Linear Backoff for real-time robot control communication and its implementation on FPGA.

11:40 - SOO HYEOK KANG
Novel Positioning System for Mobile Robot Using RFID Power Control.

EDUCATION

Chair: Ulf Witkowski
Co-chair: Nils Axer

11:00 - NILS AXEL ANDERSEN
Designing Competitions for Education in Robotics.

11:20 - DOMINIK AUFDERHEIDE
Experiences with LEGO Mindstorms as an Embedded and Robotics Plattform within the Undergraduate Curriculum.

11:40 - THOMAS TETZLA
Modular Mobile Robot Platform for Research and Academic Applications in Embedded Systems.

MACHINE LEARNING

Chair: TBD
Co-chair: Christopher Burbridge

16:00 - JARTUWAT RAJRUANGRABIN
Adaptive Interface Mapping for Intuitive Teleoperation of Multi-DOF Robots.

16:20 - CHRISTOPHER BURBRIDGE
Learning the Geometric Meaning of Symbolic Abstractions for Manipulation Planning.

16:40 - SI-JUNG RYU
Multiobjective Quantum-inspired Evolutionary Algorithm with Preference-based Selection 2: Comparison Study.

PLANNING

Chair: Vojtech Vonasek
Co-chair: Erion Plaku

14:00 - STEVEN BYRNE
Efficient local sampling for motion planning of a robotic manipulator.

14:20 - EKATERINA NIKANDROVA
Explorative Sensor-Based Grasp Planning.

14:40 - VOJTĚCH VONÁSEK
Motion planning of self-reconfigurable modular robots using Rapidly Exploring Random Trees.

15:00 - ERION PLAKU
Planning in Discrete and Continuous Spaces: From LTL Tasks to Robot Motions.