

IROS 2012 Technical Program

Sunday 07 - October - 2012											
Room	Pegaso A	Pegaso B	Fenix 1	Fenix 2	Fenix 3	Gemini 1	Gemini 2	Gemini 3	Lince	Hidra	Vega
Full-day 08:30 18:30	Workshop SW8 Robotics for Environmental Monitoring	Workshop SW7 Bio Assembler for 3D Cellular System in Collaboration with Micro- Nano Robotics	Workshop SW1 Human Behavior Understanding	Workshop SW4 Planning, Perception & Navigation for Intelligent Vehicles		Tutorial ST2 Handling ROS: Introductory tutorial to ROS and its use for robot in-hand manipulation	Workshop SW9 Active Semantic Perception (ASP'12), Context & Semantic Prior in Active Perception	Workshop SW3 Optimality Principles and Adaptation in Humanoid Robotic Control	Workshop SW5 Cognitive Assistive Systems: Closing the Action- Perception Loop		Workshop SW6 Color-Depth Camera Fusion in Robotics

Monday 08 - October - 2012											
Room	Pegaso A	Pegaso B	Fenix 1	Fenix 2	Fenix 3	Gemini 1	Gemini 2	Gemini 3	Lince	Hidra	Vega
09:00 09:30			Plenary Session MonOL Opening Ceremony								
09:30 10:30			Plenary Session MonP1L Plenary Lecture - Prof. Hajime Asama								
Coffee Break											
11:00 12:30	MonAT1 Force and Tactile Sensing	MonAT3 Marine Robotics I	MonAT9 Rehabilitation Robotics I	MonAT2 Haptics and Haptic Interfaces I	MonAT4 Biomimetics I	MonAT8 Legged Robots I	MonAT5 Legged Robots: Modeling and Control I	MonAT6 Localization I	MonAT10 Safety, Failure Handling and Recovery I	MonAT11 Nonholonomic Motion Planning	MonAT7 Formal & AI Reasoning Methods
Lunch Time											
14:00 15:00	MonBT1 Calibration and Identification I	MonBT3 Aerial Robotics I	MonBT9 Micro-Nano Scale Automation I	MonBT2 Human Robot Interaction I	MonBT4 Biologically Inspired Robotics I	MonBT8 Novel Actuation Technologies	MonBT5 Distributed Robot Systems I	MonBT6 Localization and Mapping I	MonBT10 Manipulation Planning I	MonBT11 Robot Audition I	MonBT7 Motion and Path Planning I
15:00 16:00	MonCT1 Calibration and Identification II	MonCT3 Aerial Robotics II	MonCT9 Micro-Nano Scale Automation II	MonCT2 Human Robot Interaction II	MonCT4 Biologically Inspired Robotics II	MonCT8 Novel Robot Design	MonCT5 Distributed Robot Systems II	MonCT6 Localization and Mapping II	MonCT10 Manipulation Planning II	MonCT11 Robot Audition II	MonCT7 Motion and Path Planning II
Coffee Break											
16:15 17:30	MonDT1 Applications of RGB-D Cameras	MonDT3 Education and Entertainment Robotics	MonDT9 Control in Medical Robotics	MonDT2 Visual Navigation	MonDT4 Bio-Inspired Aerial Robots	MonDT8 Actuation Mechanism Design	MonDT5 Adaptive Control	MonDT6 Collision Avoidance I	MonDT10 Manipulation Planning and Learning	MonDT11 Knowledge Representation & Ontologies for Rob.s & Aut.	MonDT7 Path Planning and Navigation
17:30 18:30	MonET1 Recognition and Classification	MonET3 Cellular and Modular Robots	MonET9 Rehabilitation Robotics II	MonET2 Human-Robot Interaction III	MonET4 Biomimetics II	MonET8 Parallel Robots	MonET5 Control and Learning	MonET6 Collision Avoidance II	MonET10 Concept Learning	MonET11 Personal Robots I	MonET7 Path Planning & Programming Environment
19:00	Welcome Reception										

Wednesday 10 - October - 2012											
Room	Pegaso A	Pegaso B	Fenix 1	Fenix 2	Fenix 3	Gemini 1	Gemini 2	Gemini 3	Lince	Hidra	Vega
08:30 09:30	WedAT1 Pose Estimation	WedAT3 Field Robotics I	WedAT9 Medical Robotics I	WedAT2 Physical Human-Robot Interaction I	WedAT4 Humanoid Robots II	WedAT8 Dynamics and Control I	WedAT5 Kinematic Modeling	WedAT6 Mapping I	WedAT10 Skill Learning – Dynamics		WedAT7 Multiple Mobile Robot Planning I
09:30 10:30	WedBT1 Sensor Fusion	WedBT3 Field Robotics II	WedBT9 Medical Robotics II	WedBT2 Physical Human-Robot Interaction II	WedBT4 Humanoid Robots III	WedBT8 Dynamics and Control II	WedBT5 Identification, Modeling and Motion Control	WedBVT6 Mapping II	WedBT10 Visual Learning I		WedBT7 Multiple Mobile Robot Planning II
Coffee Break											
11:00 12:30	WedCT1 Object Detection and Tracking	WedCT3 Sensors, Sensor Networks and Networked Robots	WedCT9 Sensing in Medical Robotics	WedCT2 Human Performance Augmentation	WedCT4 Humanoid Robots IV	WedCVT8 Soft Robots	WedCT5 Force Control	WedCVT6 Slam II	WedCT10 Visual Learning II		WedCT7 Robot Interaction with the Environment and Humans
Lunch Time											
14:00 15:00	WedDT1 Omnidirectional Vision and Aerial Robotics I	WedDT3 Outdoor, Search and Rescue Robotics I	WedDVT9 Range Sensing	WedDT2 Physical Human-Robot Interaction III	WedDT4 Humanoid Robots V	WedDT8 Space Robotics	WedDT5 Human-Machine Interfaces	WedDT6 Mapping III	WedDT10 Tactile Exploration		WedDT7 Motion and Path Planning VI
15:00 16:00	WedET1 Omnidirectional Vision and Aerial Robotics II	WedET3 Outdoor, Search and Rescue Robotics II	WedEVT9 Vision for Segmentation and Servoing	WedET2 Emotion Detection and Expression	WedET4 Control of Bio-Inspired Robots II	WedET8 Search and Rescue – Modeling	WedET5 Personal Robots II	WedET6 Mapping IV	WedET10 Multifingered Hands		WedET7 Motion and Path Planning VII
Coffee Break											
16:15 17:30	WedFT1 Estimation and Sensor Fusion	WedFT3 Intelligent Transportation Systems	WedFVT9 Multi-Modal Learning II	WedFVT2 Telerobotics & Brain-Machine Interfaces	WedFT4 Mechanism Design for Bio-Inspired Robots	WedFT8 Tools for Robot Control Design	WedFT5 Contact Modeling	WedFT6 Navigation III	WedFT10 Manipulation and Navigation in Space Applications	WedFT11 Robots with Variable Impedance Actuation	WedFT7 Motion Planning for Aerial Robotics
17:30 18:30	WedGT1 Stereo Vision	WedGT3 Home Automation and Personal Robots	WedGT9 Control of Wheeled Robots II	WedGT2 Telerobotics	WedGVT4 Haptics, Force Sensing and Manipulation	WedGT8 Control Design	WedGT5 Cooperating Robots	WedGT6 Localization and Mapping III	WedGT10 Safety, Failure Handling and Recovery II	WedGJT11 Jubilee Videos I	WedGT7 Mobile Manipulation
19:30	Gala Dinner										

Thursday 11 - October - 2012												
Room	Pegaso A	Pegaso B	Fenix 1	Fenix 2	Fenix 3	Gemini 1	Gemini 2	Gemini 3	Lince	Hidra	Vega	Aquarius
08:30 09:30			Plenary Session ThuP5J Plenary Lecture - Dr. Gill Pratt									
Coffee Break												
10:00 12:30			Plenary Session ThuP6J Silver Jubilee Celebrations and Awards Ceremony									
12:30 14:00	Farewell Lunch											
14:00 18:30	Workshop TW2 Agricultural Robotics: Enabling Safe, Efficient, Affordable Robots for Food Production	Workshop TW9 ECHORD - scientific results and tech transfer opportunities	Worshop EU Funding Opportunities	Workshop TW1 Lifelong Learning for Mobile Robotics Applications	Workshop TW7 Advances in tactile sensing and touch-based human-robot interaction	Workshop TW3 Visual Control of Mobile Robots (ViCoMoR 2012)	Workshop TW8 Human-Agent Interaction (iHAI 2012)	Workshop TW6: Smart materials and alternative technologies for bio-inspired robots and systems	Workshop TW4 Sensors and Robots Integration in Future Rescue Information System (ROSIN 2012)	Workshop TW10 Smart CAMeras for roBoTic applications (SCaBot)	Workshop TW5 Aerial Physically Acting Robots (AIRPHARO)	Workshop TW11 Robot Competitions: Benchmarking, Technology Transfer and Education

Friday 12 - October - 2012												
Room	Pegaso A	Pegaso B	Fenix 1	Fenix 2	Fenix 3	Gemini 1	Gemini 2	Gemini 3	Lince	Hidra	Vega	Aquarius
Full-day 08:30 18:30	Workshop FW4 Progress, challenges and future perspectives in navigation and manipulation assistance for robotic wheelchairs	Workshop FW2 Magnetically Actuated Multiscale Medical Robots	Workshop FW10 Robot Motion Planning: Online, Reactive, and in Real-time	Workshop FW7 Beyond Robot Grasping: Modern Approaches for Dynamic Manipulation	Workshop FW1 Assistance and Service Robotics in a Human Environment	Tutorial FT8 3D Point Cloud Processing: PCL (Point Cloud Library)	Workshop FW9 Cognitive Neuroscience Robotics	Workshop FW5 Safety in Human-Robot Coexistence & Interaction: How can Standardization and Research benefit from each other?	Workshop FW11 Metrics of sensory motor integration in robots and animals	Workshop FW3 Motivational Aspects of Robotics in Physical Therapy	Workshop FW6 Learning and Interaction in Haptic Robots	