

2009 IEEE International Workshop on Safety, Security and Rescue Robotics

Final Program

Tuesday, November 3

8:15 AM Shuttle from Loews Hotel to DU

8:40 AM **Welcome** Molly Rauzi, City/County of Denver CIO

9:00 AM **Invited Talk** Howie Choset Carnegie Mellon University

10:00 AM Break

10:20 AM **Field Exercises** Paper

	Title	
10:20 AM	11 Reconnaissance and Camp Security Missions with an Unmanned Aerial Vehicle (UAV) at the 2009 European Land Robots Trials (ELROB)	Andreas Birk
10:40 AM	12 3D Data Collection at Disaster City at the 2008 NIST Response Robot Evaluation Exercise (RREE)	Andreas Birk
11:00 AM	40 Preliminary Domain Theory for Robot-Assisted Wildland Firefighting	Robin Murphy
11:20 AM	41 Robot-Assisted Bridge Inspection after Hurricane Ike	Robin Murphy
11:40 AM	33 Rollover Avoidance Using a Stability Margin for a Tracked Vehicle with Sub-crawlers	Kazunori OHNO

12:00 PM **Lunch**

1:00 PM **Invited Talk** Bob McKee Disaster City / TXTF1

2:00 PM **Mechanisms and Manipulation**

2:00 PM	36 Multi-Robots Exploration for Search and Rescue Missions - A Report of Map Building in RoboCup Rescue 2009	Keiji Nagatani
2:20 PM	6 Performance-Directed Exploration Algorithm for Search and Rescue Robots	P.Saedi

2:40 PM **Break**

3:00 PM **HCI**

3:00 PM	2 VIEW-FINDER : ROBOTICS ASSISTANCE to Fire-Fighting Services and Crisis Management	Yvan Baudoin
3:20 PM	8 Teleoperation of all-terrain robot using continuous acquisition of three-dimensional environment under time-delayed narrow bandwidth communication	Keiji Nagatani
3:40 PM	16 Operator-Assistive Mapping in Harsh Environments	Alexander Kleiner
4:00 PM	18 Give me the control, I can see the robot!	Alberto Valero
4:20 PM	39 Using Fractal Dimension to Assess Robot Operator Skill	Jeff Craighead

4:40 PM **Break**

5:00 PM **Algorithms and Planning**

5:00 PM	17 Integrating Symbolic and Geometric Planning for Mobile Manipulation	Christian Dornhege
5:20 PM	3 Control of an Unconventional VTOL UAV for Search and Rescue Operations within Confined Spaces Based on the MARC Control Architecture	S. S. Dhaliwal
5:40 PM	35 Towards Small Robot Aided Victim Manipulation	Mark Yim

Wednesday, November 4

8:15 AM Shuttle from Loews Hotel to DU

8:40 AM **Algorithms and Planning**

8:40 AM	15 An Initial Evaluation of Approaches to Building Entry for Large Robot Teams	Zheng Ma
9:00 AM	24 The AROUND project: Adapting robotic disaster response to developing	Alain Boucher
9:20 AM	1 Comparing Multi-source Algorithms	Kathleen McGill

9:40 AM **Break**

9:50 AM **Invited Talk** Jeff Kravitz US Mine Safety and Health Administration

10:50 AM **Break**

11:10 AM **Mechanisms and Mobility**

11:10 AM	4 Mobility for a Special Configuration of a Shape-shifting Robot in Urban Terrain	Bin Li
11:30 AM	29 Towards an All-Polymer Robot for Search and Rescue	Robert Nawrocki
11:50 AM	30 Experimental Comparison of Robotics Locomotion with Passive Tether and Active Tether	Xiaoting Yang

12:10 PM **Lunch**

1:10 PM **SLAM**

1:10 PM	10 Robust covariance estimation in sensor data fusion	Sequeira, Joao
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1:30 PM

1:50 PM

26 3D Terrain Measurement System with Movable Laser Range Finder
34 Toward a 3-D Mapping in Underground Mall Using a Crawler Robot with Four Sub-Crawlers

Toyomi Fujita
Kazunori OHNO

2:10 PM **Break**

2:20 PM **CBRNE and Surveillance**

2:20 PM

2:40 PM

3:00 PM

3:20 PM

3:40 PM

4:00 PM

22 Autonomous Camp Surveillance
with a Coordinated Multi Robot System
23 CBRNE Hazard Detection
with an Unmanned Vehicle
32 Multi-modal Ear and Face Modeling and Recognition
37 Spark-Induced Breakdown Spectroscopy-based Classification of Bioaerosols
14 Incorporating large scale SSRR Scenarios into the High Fidelity Simulator
5 Market-based Dynamic Task Allocation in Mobile Surveillance Systems

Achim K"onigs
Timo R"ohling
Steven Cadavid
Amy J. Bauer
Ravi Rathnam
Ahmed M. Elmogy

4:20 PM **Break**

4:30 PM **Invited Talk**

HJ Siegel

PAR / Colorado State University

5:30 PM **Break**

6:30 PM **Banquet**

8:00 AM **Thursday, November 5**

8:00 AM **Buses Depart Hotel**

9:00 AM **Demos and Exercises @ DU East Test Range**

11:00 AM **Transportation**

12:00 PM **Invited Talk and Pizza**

Mark Yim

University of Pennsylvania

1:15 PM **Lab Tours**

3:15 PM **SSRR Ends**

Friday, November 6

SSRR Committee Meeting - No Activities