

# THE NATIONAL ACADEMIES

*Advisers to the Nation on Science, Engineering, and Medicine*

Division on Engineering and Physical Sciences  
Army Research Laboratory Technical Assessment Board  
Panel on Information Sciences at the Army Research Laboratory

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**Panel on Information Sciences at the Army Research Laboratory**  
**Autonomous Systems Meeting**  
**Army Research Laboratory (ARL)**  
**Adelphi, MD**  
**August 13-15, 2013**  
**Final Agenda**

## Tuesday, August 13, 2013

**Note: Breakfast Will Not Be Available at the ARL. Please Eat Breakfast Before the Meeting.**

7:20 a.m. Panel Assembles in the Hotel Lobby to Shuttle to ARL, Sign In at the Security Office, and Arrive at the Meeting

### **DATA GATHERING SESSION: OPEN TO THE PUBLIC**

9:00 – 9:15 a.m.	Welcome, Administrative Remarks and Introductions, <b>Dr. Prabat Hajela</b> , Panel Chair and <b>Dr. Jonathan Bornstein</b> , Chief Autonomous Systems Division, ARL
9:15 – 9:35 a.m.	ARL Autonomous Systems Enterprise—Overview, <b>Dr. Jonathan Bornstein</b>
9:35 – 9:50 a.m.	Robotics Collaborative Technology Alliance, <b>Dr. Jonathan Bornstein</b>
9:50 – 10:05 a.m.	MAST Collaborative Technology Alliance, <b>Dr. Brett Piekarski</b>
10:05 – 10:35 a.m.	Overview of the Army Research Laboratory, <b>Dr. Thomas Russell</b> , Director, ARL
10:35 – 10:50 a.m.	Break
10:50 -10:55 a.m.	Intelligence Overview, <b>Mr. Stuart Young</b>
10:55 – 11:20 a.m.	Long Duration 3D Mapping and Navigation, <b>Dr. John Rogers</b>
11:20 – 11:45 a.m.	Robust Control of Mobility and Communications, <b>Dr. Jonathan Fink</b>
11:45 – 12:10 p.m.	Cognitive Architecture for Robotic Control, <b>Mr. Troy Kelley</b>
12:10 – 1:40 p.m.	Working Lunch and Poster Session—Intelligence and HRI Posters
1:40 - 1:45 p.m.	Human-Robot Interaction Overview, <b>Dr. Susan Hill</b>
1:45 – 2:10 p.m.	HRI Guidelines for Autonomous Systems, <b>Mr. Michael Barnes</b>

2:10 – 2:35 p.m.	Operator Aids for Robotic Control, <b>Dr. William Evans</b>
2:35 – 3:00 p.m.	Human- Agent Teaming for Multi-Robotic Control, <b>Dr. Jessie Chen</b>
3:00 – 3:25 p.m.	Technology Assessment Program, <b>Mr. Marshal Childers</b>
3:25 – 3:45 p.m.	Break and Move to Building 507
3:45 – 5:00 p.m.	Laboratory Demonstration
5:00 p.m.	Return to Zahl Conference Room

#### **DATA GATHERING SESSION: OPEN TO THE PUBLIC**

6:00 p.m.	Panel Assembles to Shuttle to Joint Working Dinner
6:20 – 8:00 p.m.	Joint Working Dinner: Panel and ARL Engage in Question and Answer Session
8:00 p.m.	Panel Shuttles Back to Hotel

## **Wednesday, August 14, 2013**

**Note: Breakfast Will Not Be Available at the ARL. Please Eat Breakfast Before the Meeting.**

7:30 a.m.	Panel Assembles in the Hotel Lobby to Shuttle to ARL and Arrive at the Meeting
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#### **DATA GATHERING SESSION: OPEN TO THE PUBLIC**

8:30 – 9:00 a.m.	Army Research Organization Programs
9:00 – 9:05 a.m.	Perception Overview, <b>Dr. Raghu Rao</b>
9:05 – 9:30 a.m.	Sensing & Perception on Constrained Platforms, <b>Dr. Joe Conroy</b>
9:30 – 9:55 a.m.	Unsupervised Human Detection in Still Images, <b>Dr. Prudhvi Gurram</b>
9:55 – 10:20 a.m.	Image Comprehension through Scene Parsing, <b>Doug Summers-Stay</b>
10:20 – 10:30 a.m.	Break
10:30 – 10:35 a.m.	Manipulation and Mobility Overview, <b>Mr. Harris Edge</b>
10:35 – 11:10 a.m.	Autonomous Self-Righting for Generic Robot, <b>Mr. Chad Kessens</b>
11:10 – 11:35 a.m.	CANID- Quadrupedal Locomotion Testbed, <b>Mr. Jason Pusey</b>
11:35 – 12:00 p.m.	PiezoMEMS Enabled Milimeter-scale Robotics, <b>Mr. Jeffery Pulskamp</b>
12:00 – 1:30 p.m.	Lunch and Poster Break—Perception and Manipulation and Mobility posters

## Thursday, August 15, 2013

**Note: Breakfast Will Not Be Available at the ARL. Please Eat Breakfast Before the Meeting.**

7:30 a.m.                      Panel Assembles in the Hotel Lobby to Shuttle to ARL and Arrive at the Meeting

### **DATA GATHERING SESSION: OPEN TO THE PUBLIC**

10:00 -12:00 p.m.            Panel Meets with ARL Staff

12:00 p.m.                    Panel Travels Back to Hotel or Area Airports