

# 2009 Guest Speaker Series

**Date:** Jan. 22<sup>nd</sup>, 2009

**Time:** 7:00 PM

**Location:**

The MITRE Corporation Building  
#2, Conference Room 1N100,  
7515 Colshire Drive, McLean, VA.

*The speaker series will be preceded by an RAS Chapter update meeting at 6:30 PM. See next page for directions and parking information.*

## Contact Information

Dr. Raj Madhavan  
Chair  
[raj.madhavan@ieee.org](mailto:raj.madhavan@ieee.org)  
301-975-2865  
Intelligent Systems Division  
NIST  
Gaithersburg, MD 20899.

## State of the Art in Ground Robotics

**Dr. Robert Grabowski**

Senior Robotics Engineer  
MITRE Corporation

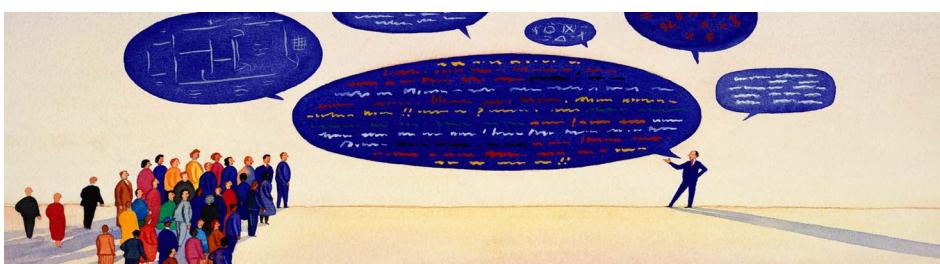
### Abstract

Small ground robots, such as the PackBot and Matilda, have found a strong niche in military and civilian applications over the past year supporting efforts such as IED disruption, bomb disposal, search and rescue, and vehicle inspection. However, the robotic community is still several years away from fielding the first large-sized ground vehicles in any significant operational situations. Issues of sensor fidelity, perception, and safety (both human and property) still exceed the current capabilities of large UGVs. This presentation discusses issues and challenges facing large UGVs. It examines the progress demonstrated through DARPA's last two Grand Challenges. It also highlights recent research and capabilities of the MITRE robotics group.

### Speaker Biography

Dr. Bob Grabowski has been a Senior Robotics Engineer at the MITRE Corporation for the past few years supporting development of their large UGV program. Dr. Grabowski earned his PH.D ECE degree from Carnegie Mellon in 2004 where he developed sensing platforms and perception algorithms for the Millibot project, a team of 5cm, heterogeneous robots. Dr. Grabowski went from researching small robots to developing large, autonomous, outdoor vehicles - one of which (The Meteor) made it to the finals of the 2005 DARPA Grand Challenge. Dr Grabowski has been the Principle Investigator on five internally sponsored robot projects as well as supporting the Army's Future Combat Systems and the OSD Test Resource Management Center's new Unmanned and Autonomous Systems Testing focus area.

\* This meeting is co-sponsored by the newly formed IEEE W/NV Sensors Council Chapter, Engineering in Medicine & Biology Society Chapter, and the Control Systems Society Chapter.



## DIRECTIONS

For directions see [http://www.mitre.org/about/locations/mitre2\\_map.html](http://www.mitre.org/about/locations/mitre2_map.html)

## PARKING

There are 2 places to park. If you arrive before 7:00 PM, you can park in the garage. The gates come down but you can leave anytime by just driving up to the exit gate. If you park on the 2<sup>nd</sup> floor of the garage (left side of image) there is a walkway that connects to the rear door of MITRE 2 that is right next to the conference room. There are also guest parking spots in the front of MITRE 2 (right side of picture). These are always open but limited to about 15 vehicles. If you park there, then walk across to the front lobby, take a right at the visitor desk and the room is on the right.

