**A Briefing on Robotics in Infrastructure**

**Reimagining Energy, Water, and Transportation Monitoring and Maintenance with Intelligent Tools**

**Wednesday, April 29, 2015**

**11:30-12:30**

**2253 Rayburn House Office Building**

**Lunch will be Provided**

**RSVP to:  b.concepcion@ieee.org**

Dear Colleague,

You may have heard the story on NPR a few months ago:  ["Roadbot Fixes Highway Cracks In Milliseconds."](http://wabe.org/post/roadbot-fixes-highway-cracks-milliseconds)  Please join us for a briefing featuring the developer of that technology and others to examine how robotics technologies can provide intelligent tools to transform the way we repair and maintain our nation's infrastructure.

**Hosted by the**[**Robotics Caucus Advisory Committee**](http://www.roboticscaucus.org/)

**Featuring Robotics Caucus Co-Chairs Congressman Mike Doyle (PA) and Congressman Rob Woodall (GA)**

It is no secret that our aging, and failing, infrastructure of roads, bridges, lines and pipes looms as an impending national crisis. During this past winter it seemed as if every day there was a water main break or car-eating pothole in the news.  The projected annual cost to sustain our existing roads and bridges alone exceeds $91.1 billion.  If you include aging energy, water, and, communication infrastructure, by 2020, the cost will be over $3.6 trillion.

A new class of intelligent tools that can augment the productivity of the workforce to address these challenges is emerging.  Examples include tools that could enable more frequent, precise and consistent bridge inspection and painting;  tools for power line evaluation and maintenance that can make these activities not only more frequent but also safer; tools for more efficiently identifying and removing potential debris hazards along roadways; and tools for more efficient inspection and maintenance of reservoir facilities.

There have been amazing advances in the capabilities of robots in mining, construction, and agriculture.  However, their ability to interact with their surroundings is still mainly limited to spatial navigation and controlled manipulation.  Enabling this new class of intelligent robotic tools that can interact with their surroundings could transform the way we repair, inspect, and maintain infrastructure.

**Featuring presentations by:**

[**Dr. Nathan Michael**](http://www.ri.cmu.edu/person.html?person_id=2954)**, The Robotics Institute, Carnegie Mellon University**

[**Dr. Burcu Akinci**](http://www.cmu.edu/cee/people/faculty/akinci.html)**, Civil and Environmental Engineering, Carnegie Mellon University**

[**Dr. Jonathan Holmes**](http://www.gtri.gatech.edu/casestudy/gtri-prototype-pavement-crack-detection-sealing)**, Georgia Tech Research Institute**

[**Dr. Mani Golparvar-Fard**](http://cee.illinois.edu/faculty/manigolparvarfard)**, Civil and Environmental Engineering, University of Illinois**

[**George Kantor**](http://frc.ri.cmu.edu/~kantor/George_Kantors_Home_Page/Home.html)**, Senior Systems Scientist, Robotics Institute, Carnegie Mellon University**

Sincerely,

MIKE DOYLE                                         ROB WOODALL

Member of Congress                              Member of Congress