



The Durham Engineers Club Cordially Invites You to
A Joint August 20, 2015 Meeting with



Program:

Advanced Imaging Techniques for Structural Health Monitoring

featuring guest speaker

Mohammad Pour-Ghaz, Ph.D
NC State University

All RSVPs will now be taken online

[https://events.r20.constantcontact.com/register/eventReg?oeidk=a07eavk6lri15488291&oseq=&c=&ch=.](https://events.r20.constantcontact.com/register/eventReg?oeidk=a07eavk6lri15488291&oseq=&c=&ch=)

Payment may be made in advance or at the door.

RSVP Deadline: 12:00 pm Noon, Friday, August 14th, 2015

When

Thursday August 20, 2015 from
5:30 PM to 8:00 PM EDT

[Add to Calendar](#)

Where

**1705 Prime Catering and
Events**

1705 East Millbrook Road
Raleigh, NC 27609

Dear Fellow Professional :

Please consider this special invitation to attend a joint meeting with the ASCE Eastern Chapter on Thursday, August 20, 2015.

Registration & Networking: 5:30 PM - 6:30 PM

Program: 6:30 PM - 8:00 PM

Location:

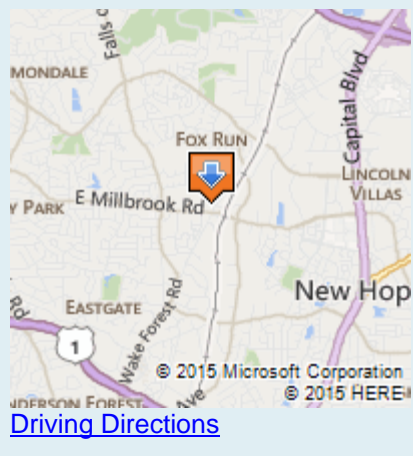
1705 Prime
1705 East Millbrook Road
Raleigh, NC 27609

COST:

\$35 ASCE & DEC Members

\$40 Non-members and Guests

Note that if you make a reservation and cannot attend, you must cancel by the deadline or send a replacement to avoid being charged.



[Driving Directions](#)

DURHAM ENGINEERS CLUB

Upcoming Events:

***Sept. 17 - Field Trip to
The Center for
Leadership Studies in
Cary***

***Oct. 15 - Annual Fundraising
GOLF Tournament (day)***

***Oct. 15 - Meeting
Photovoltaics***

Description of Presentation:

In this presentation we discuss applications of an emerging imaging technology for monitoring civil infrastructure. We describe the development of a large-area sensing-skin for damage detection in concrete structures. The developed sensing-skin consists of a thin layer of electrically conductive paint that is applied to the surface of the concrete. Cracking of the concrete structure results in the rupture of the sensing-skin, decreasing its electrical conductivity locally. The decrease in conductivity is detected with electrical impedance tomography (EIT) imaging. We then describe the use of EIT for monitoring water ingress in concrete and compare the results of EIT with neutron radiography measurements. We demonstrate the potential of EIT imaging modality for nondestructive testing and structural health monitoring of concrete structures.

Speaker Biography Information:

Mohammad Pour-Ghaz is an Assistant Professor in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University. Pour-Ghaz studies the durability of reinforced concrete materials and structures with the goal of better understanding the deterioration mechanisms and distress factors affecting the concrete infrastructure. His studies aim at developing mechanistic models for accurate service life prediction of concrete infrastructure and developing test methods for fundamental material characterization. Pour-Ghaz also performs research in the area of Nondestructive Testing (NDT) and Structural Health Monitoring (SHM). Specifically, he investigates the use of electrical, ultrasonic, acoustic, and hybrid imaging for monitoring damage development and moisture ingress in concrete.

A certificate for 1 PDH will be made available after the meeting.

If you do not wish to continue to receive event invitations from the Durham Engineers Club please unsubscribe using the link at the bottom. The Durham Engineers Club has one meeting per month.

We look forward to seeing you at the meeting!

Sincerely,

Jennifer Buzun
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