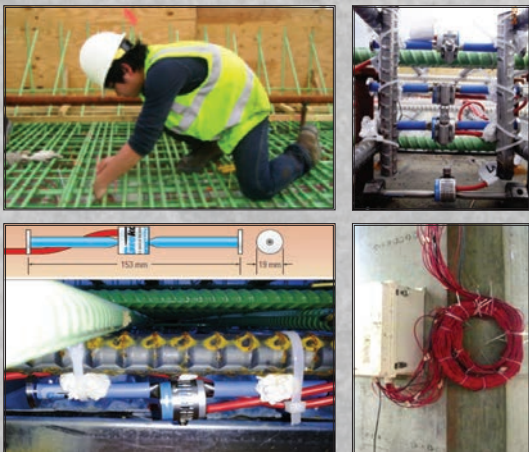


OBJECTIVES

By the end of the course, graduate students will be able to:

- Define structural health monitoring (SHM)
- Describe the role and needs of SHM
- Understand sensor technologies and data processing for SHM
- Investigate the difficulties and pitfalls of SHM
- Explain SHM case studies
- Application of SHM in concrete bridges, pavement, design and rehabilitation



LOCATION

Rutgers University
New Brunswick, NJ



RUTGERS

Lectures:
Busch Student Center
Room 120
604 Bartholomew Road
Piscataway, NJ 08854-8002

Closest airports:
Newark, NJ (EWR)
J.F. Kennedy, NY (JFK)

Directions:
[http://newbrunswick.rutgers.edu/
visit/maps-directions-parking](http://newbrunswick.rutgers.edu/visit/maps-directions-parking)

Seats are limited to 30 only.

For More Information:
Contact: Abigayle Sherman
RE-CAST Coordinator
Email: abigayle@mst.edu
Phone: 573-341-7884

Research on Concrete Applications for Sustainable Transportation

PRESENTS:
RE-CAST

GRADUATE STUDENT WORKSHOP

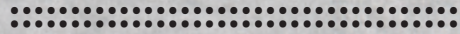
Structural
Health
Monitoring
of
Transportation
Infrastructure
Facilities

June 1-3, 2015



<http://recast.mst.edu>

PROGRAM



Monday, June 1

SHM for Concrete Bridges

8:00 – 8:30: Registration

**8:30 – 9:00: Opening Remarks
and Introduction**

**9:00 – 10:00: Fundamentals of Structural
Health Monitoring (SHM)**

What is SHM and Why is it Needed?

**10:15 – 12:45: Structure Health Monitoring
for Concrete Bridges I**

Topic 1: Overview of SHM Technology for
Concrete Bridges

Topic 2: Modeling and Analysis of Bridges

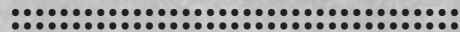
Topic 3: Sensor Technology and
Instrumentation

**2:00 – 5:00: Structure Health Monitoring
for Concrete Bridges II**

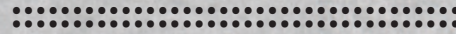
Topic 4: Field Implementation

Topic 5: Data Collection and Processing,
Decision Making and Load Rating

Topic 6: Examples and Discussion



PROGRAM (cont)



Tuesday, June 2

SHM for Concrete Pavements

**9:00 – 11:30: Structure Health Monitoring
for Concrete Pavements I**

Topic 1: Overview of SHM Technology for
Concrete Pavement

Topic 2: Modeling and Analysis of Pavement

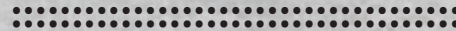
Topic 3: Sensor Technology
and Instrumentation

**1:00 – 4:00: Structure Health Monitoring
for Concrete Pavements II**

Topic 4: Field Implementation

Topic 5: Data Collection and Processing

Topic 6: Examples and Discussion

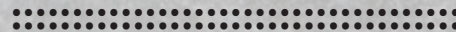


Wednesday, June 3

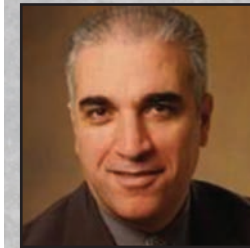
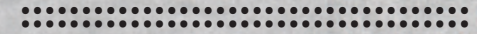
Field Visit

8:00 – 12:00: Field Visit

**12:00 – 1:00: Discussion on Field
Demonstration and Concluding Remarks**



INSTRUCTORS



Hani Nassif

RE-CAST Assoc. Director

Professor of Civil Engineering
at Rutgers University

Hani Nassif, P.E., Ph.D., FACI, is a Professor of Civil and Environmental Engineering at Rutgers, The State University of New Jersey. He is working in the research areas of Structural Health Monitoring (SHM) and Field Testing of Infrastructure facilities. He is currently the chair of ACI Committee 444 – Structural Health Monitoring and Instrumentation, and also an Associate Director of Research on Concrete Application for Sustainable Transportation (RE-CAST) University Transportation (UTC) Center.



Alex Hak-Chul Shin

RE-CAST Researcher

Associate Professor
at Southern University
and A&M College

Alex Hak-Chul Shin, P.E., Ph.D., is an Associate Professor at Southern University at Baton Rouge. His research interests are on the characterization of concrete materials and their application on the construction and rehabilitation of infrastructures. Dr. Shin is a leader in pavement research in the RE-CAST UTC.

<http://recast.mst.edu/researchteam>