



# 7IWSCM

7th International Workshop on Structural Control & Monitoring

**INHA University, Incheon, Korea**

**25-26 July 2016**



## 7IWSCM 2016

The IWSCM, as part of the International Association on Structural Control and Monitoring (IASCM), is held every four-year, and is staggered by two years from each of the World Conferences on Structural Control and Monitoring. The first IWSCM workshop was held in 1993 at Honolulu, the second in 1996 at Hong Kong, the third at Paris in 2000, the fourth at New York in 2004, the fifth at Dalian, China in 2008, the sixth at Sydney, Australia in 2012, and the seventh is going to be held at Incheon, Korea in 2016. The workshops are typically smaller than the world conferences and serve as a focused forum to chart new directions in the field.

Date	Time	Activities
July 24, 2016 (Sun)	15:00 – 18:00	IASCM Board meeting
	14:00 – 18:00	Registration (1 <sup>st</sup> fl. 60 <sup>th</sup> Anniversary Hall)
July 25, 2016 (Mon)	09:00 – 09:30	Opening ceremony
	09:30 – 11:00	Keynote lectures
	11:00 – 11:15	Coffee break
	11:15 – 13:00	Panel reports
	13:00 – 14:00	Lunch
	14:00 – 15:45	Working group sessions
	15:45 – 16:00	Coffee break
	16:00 – 17:45	Working group sessions
	19:00 – 21:00	Banquet (36 <sup>th</sup> fl. Oakwood Hotel: <a href="http://www.oakwoodpremier.co.kr">www.oakwoodpremier.co.kr</a> ) *Bus to the banquet will be provided.
July 26, 2016 (Tue)	09:00 – 10:45	Working group sessions
	10:45 – 11:00	Coffee break
	11:00 – 13:00	Reports from working groups Closing ceremony
	13:00 – 14:00	Lunch
	14:00 – 18:00	Technical tour (Incheon bridge, POSCO R&D Center)

Venue: 60th Anniversary Hall in INHA University

### WORKING GROUPS (tentative)

#### **Working group 1:**

*Theme:* Smart materials, sensors, and devices; applications and challenges

#### **Working group 2:**

*Theme:* Structural vibration control; applications and challenges

#### **Working group 3:**

*Theme:* Structural health monitoring and life-cycle maintenance; applications and challenges

## Keynote Speakers

Dr. Heungbae Gil	Korea	Korea Express Highway Co.	Structural health monitoring of cable supported bridges
Prof. Saurabh Amin	USA	MIT	Network monitoring and control algorithms for infrastructure resilience: recent progress and new challenges
Prof. José Rodellar	Spain	Polytechnic University of Catalonia	Fault-tolerant control and damage detection in wind turbine systems
Prof. Hui Li	China	Harbin Institute of Technology	Data science and engineering for civil engineering

	<p><b>Dr. Heungbae Gil (Korea Expressway Co., Korea)</b></p> <ul style="list-style-type: none"> <li>• Ph.D. University of Texas at Austin (1996)</li> <li>• 2015~: Research Director, Seohae Bridge Maintenance Office</li> <li>• 2001~2015: Research Director, Korea Expressway Co. Research Institute</li> </ul>
	<p><b>Prof. Saurabh Amin (MIT, USA)</b></p> <p><i>Robert N. Noyce Career Development Assistant Professor</i></p> <ul style="list-style-type: none"> <li>• Ph.D. University of California, Berkeley</li> <li>• Robust infrastructure diagnostics and control</li> <li>• Incentive mechanisms for network security and reliability</li> <li>• Testbed for networked control systems</li> </ul>
	<p><b>Prof. Hui Li (Harbin Institute of Technology, China)</b></p> <ul style="list-style-type: none"> <li>• Ph.D. Harbin Institute of Technology, China (1994)</li> <li>• 2016~: President of IASCM</li> <li>• Chairman of Transportation Infrastructure Division in High-tech Program Committee in the Ministry of Science and Technology in China</li> <li>• Founding Director of the Key Lab of Smart Civil Eng. of the Ministry of Industrial and Information Technology of China</li> </ul>
	<p><b>Prof. José Rodellar (Technical University of Catalonia, Spain)</b></p> <ul style="list-style-type: none"> <li>• Doctor in Physics (Control Systems), Universidad de Barcelona, Spain (1982)</li> <li>• 2012~2016: former President of IASCM</li> <li>• 2003~: Founder and Director of the Research Group CoDALab</li> <li>• 2007~2013: Director, Dept. of Applied Mathematics III, UPC</li> </ul>

## Objectives

**Theme:** Latest advances and applications in structural control and monitoring

**Objectives:**

- Network the researchers in the field
- Discuss the research trend and next stage work of task groups
- Promote structural control and monitoring in Korea
- Showcase the latest advances in structural control and monitoring

The workshop will follow its tradition to make an effort to create a true workshop atmosphere rather than simply another mini-conference with a series of presentations alone. There will be no call for submission of paper but the presentation title. There will be an opportunity for participating researchers to present a brief (on the order of 5 minutes) summary of works during the Working Group sessions.

## About the University

The name of INHA University came from the combination of INcheon and HAwaii because the university was established by the donation from the first generation of Korean immigrants to Hawaii and Korean government subsidies. The university opened in 1954 after the Korean War as the INHA Institute of Technology with mission to foster excellent students who would contribute to the development of the nation's scientific and technological industries. INHA has already produced as many as 160,000 graduates who are now leading the nation's industries and science and technology. INHA currently educates 20,000 in 58 departments. <http://www.inha.ac.kr>

## Further information

For further information about the workshop, including how to book your place, please visit the website of <http://7iwscm.icesal.com> or contact [7iwscm@icesal.com](mailto:7iwscm@icesal.com)

## Scope of the Workshop

The workshop will focus on some aspects of:

- Smart materials and structures
- Smart sensors, wireless sensors, and sensor networks
- Smart control, smart actuators, dampers and systems
- Damage identification and localization, and model updating
- Safety evaluation and reliability forecast
- Life-cycle maintenance of infrastructure
- Structural health monitoring
- Structural control theories and devices
- Benchmark problems of structural control and monitoring
- Control and monitoring for mitigation, prevention, and alarm of disaster

## Co-organizing Institutes

Earthquake Engineering Society of Korea

<http://www.eesk.or.kr>



Korea Institute of Bridge and Structural Engineers

<http://www.kibse.or.kr>



The Wind Engineering Institute of Korea

<http://www.weik.or.kr>



Korea Advanced Institute of Science & Technology

<http://www.kaist.ac.kr>



## Supporting Institutes

Center for ICT Bridge

<http://ictbridge.kaist.ac.kr>



KOCED Collaboratory Management Institute

<http://www.koced.or.kr>



## Registration

Go to: <http://7iwscm.icesal.com/registration>

## Travel Information

Korea Tourism Organization:

<http://english.visitkorea.or.kr/enu/index.jsp>

Incheon – Lonely Planet:

<https://www.lonelyplanet.com/south-korea/gyeonggi-do/incheon>

# Transportation

## From the airport:

Visit <http://7iwscm.icesal.com/transportation> for more detail information

## From hotels to INHA University:


- Shuttle bus: (in the mornings of July 25 & 26, 2016 only)

  
[www.holidayinnsongdo.com](http://www.holidayinnsongdo.com)  
**08:00**

  
[www.centralparkhotel.co.kr](http://www.centralparkhotel.co.kr)  
**08:05**

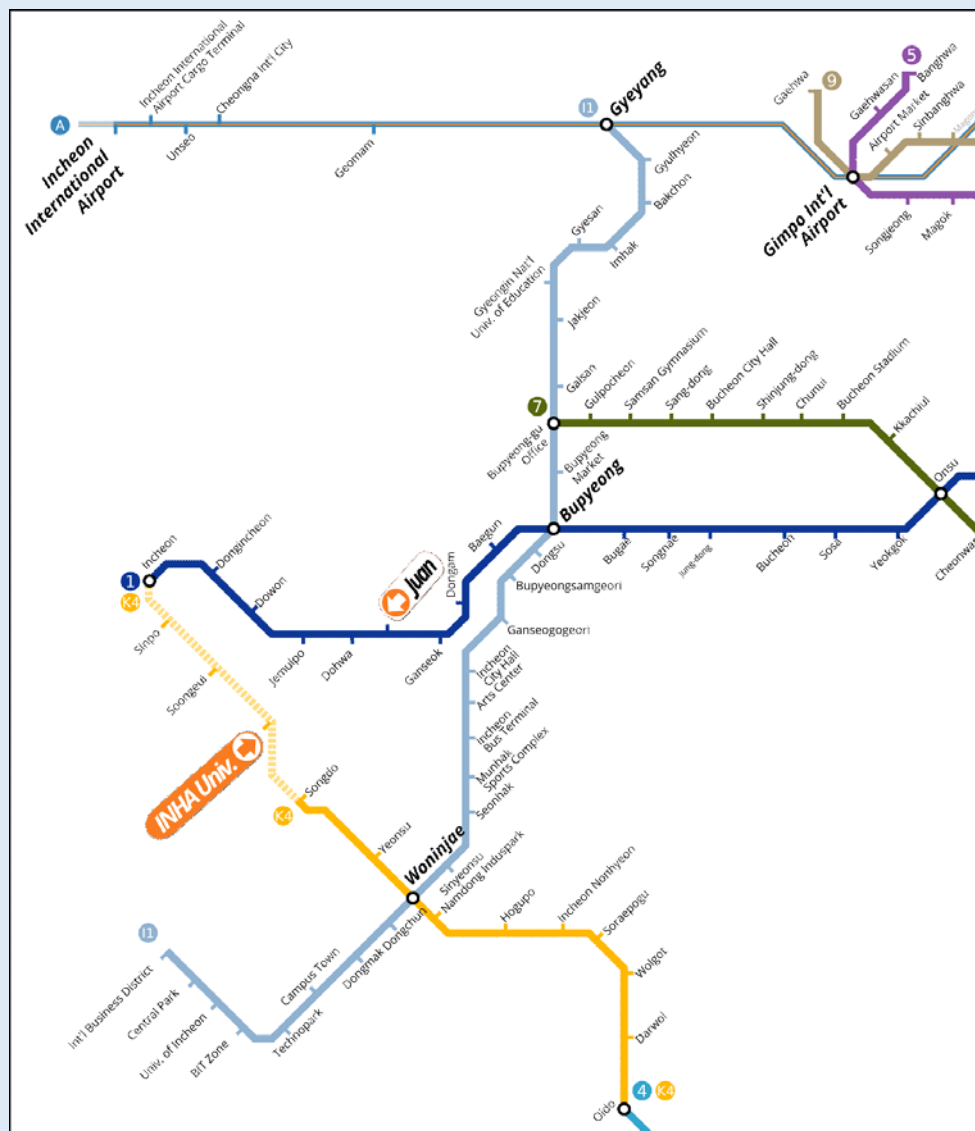
  
[www.orakaihotels.com](http://www.orakaihotels.com)  
**08:10**

**Oakwood**  
Premier  
[www.oakwoodpremier.co.kr](http://www.oakwoodpremier.co.kr)  
**08:15**

  
[www.ramada-songdo.co.kr](http://www.ramada-songdo.co.kr)  
**08:25**

  
[www.inha.ac.kr](http://www.inha.ac.kr)  
**08:50**

- Taxi: less than 30 min. from the hotels (about 10,000WON  $\cong$  10USD)
- Incheon Metro:





## The Venue

7IWSCM 2016 workshop will be hosted by INHA University in its new 60th Anniversary Hall, Incheon, Korea.

The building is mainly used for the education of the first year undergraduate students with some lecture theatres.

**INHA University**

### Campus Map

- |                                    |                               |
|------------------------------------|-------------------------------|
| 1 University Main Building         | 21 Inha Hi-Tech Center        |
| 2 Building #2                      | 22 Back Gate                  |
| 3 <b>60th Anniversary Hall</b>     | 23 Sports Field               |
| 4 Building #4                      | 24 Baseball Ground            |
| 5 Building #5                      | 25 Basketball Field           |
| 6 Building #6                      | 26 Jungseok Memorial Library  |
| 7 Student Center                   | 27 Law School                 |
| 8 Building #9                      | 28 Dormitory #2               |
| 9 West Building                    | 29 Student Rest Pavilion      |
| 10 Student Club Hall               | 30 Business Incubation Center |
| 11 Student Practice Hall           |                               |
| 12 Inha Venture Center             |                               |
| 13 R.O.T.C. Building               |                               |
| 14 Center for Continuing Education |                               |
| 15 Employment Training Center      |                               |
| 16 Dormitory #1                    |                               |
| 17 Flying Dragon Tower             |                               |
| 18 Gymnasium                       |                               |
| 19 In-kyung Pond                   |                               |
| 20 Main Gate                       |                               |

