The 7th Australian Network of Structural Health Monitoring

Annual Workshop

26-27 Nov 2015 (Thursday and Friday), Perth

Organisers: Prof. Hong Hao and Dr. Jun Li, Centre for Infrastructural Monitoring and Protection, Curtin University

Venue: Function room
Curtin Graduate School of Business
78 Murray Street (corner of Murray & Pier Streets)
Perth, WA 6000

Invitation

Australian Network of Structural Health Monitoring (ANSHM) has been formed in 2009 to promote and advance the awareness, understanding, collaborative research and application of Structural Health Monitoring (SHM) in Australia, to both academic institutions and industry partners, and also increase the involvement and transfer of SHM knowledge and techniques to engineering communities in Australia. The emerging need for SHM and its potential great benefits on the asset management of large scale engineering structures and other various infrastructure in the real world bring all ANSHM members together to present and share their recent researches, achievements, SHM implementations and data mining strategies, and visions in real project applications. The structural performance monitoring and assessment are performed and the structural safety evaluation is conducted. New sensing technologies and their applications receive great attentions in our current researches to advance the wider application and stronger capacity of SHM to meet modern engineering needs. Researchers, engineers, managing authorities and asset owners are welcome to attend this workshop.

Contact

For any queries and registration matters please contact
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ABOUT ANSHM

ANSHM has set up to raise the recognition of SHM in Australia. SHM is defined as the use of on-structure sensing system to monitor the performance of the structure and evaluate its health state. For the last two decades SHM has been attracting enormous research efforts around the world because it targets at monitoring structural conditions to prevent catastrophic failure, and to provide quantitative data for engineers and infrastructure owners to design reliable structures and economical asset management plans. Actually SHM has been accepted as a justified effort for civil structures. It is a worldwide trend to install a SHM system on a significant structure, e.g. different cable supported bridges in Hong Kong, Guangzhou TV Tower in Mainland China, Skarnsundet Bridge in Norway.

Realizing the importance of SHM, a group of researchers joined together and established the ANSHM on 30 June 2009 during the 1st ANSHM Workshop. The objectives of the Association are to promote and advance the Field of Structural Health Monitoring in Australia:

- To coordinate and integrate efforts for better development and application of SHM techniques in Australia;
- To showcase achievements, exchange ideas and disseminate knowledge nationally and internationally;
- To promote and facilitate national and international collaborative research and development; and
- To raise general community awareness on the need for and value of SHM research and application.

ANSHM now invites relevant Australian industries and universities to join this network for free. So far, we have members from fourteen institutions, namely, Queensland Department of Transport and Main Roads, Roads and Maritime Services of New South Wales, Victoria's Highway Department, Australian Road Research Board, CSIRO, Deakin University, Griffith University, Queensland University of Technology, University of Adelaide, University of Melbourne, Monash University, University of New South Wales, University of New England, University of Newcastle, University of Technology Sydney, University of Western Sydney, University of Western Australia, Australia's Information Communications Technology Research Centre of Excellence (NICTA),Curtin University, University of Wollongong, University of Southern Queensland, James Cook University, Opus International Consultants, Rockfield Technologies Australia. An individual or a group of individuals of an academic institution, university, industrial or research organisation or a government body with a serious interest in the Field, which supports the objectives of the Association is welcome to join ANSHM and can apply to become a Member through its Executive Committee.

Call for Abstracts/Presentations

The following topics, but not limited to, are covered in this workshop:

- Visual Inspections
- Non-destructive Testing
- Vibration Testing and Monitoring
- Modal Analysis
- New Sensing and Measurement Techniques
- Infrastructure Asset Management
- Data Mining and Analysis Techniques
- Condition Monitoring and Damage Identification of Structures
- Structural Safety and Reliability Analysis
- Structural Performance and Life Cycle Assessment
- Weigh-in-Motion System and Loading Evaluation

ANSHM has an annual workshop every year trying to bring our members and industry partners together to share their understanding, recent researches and applications in SHM. For the first time, the workshop will be held in Perth, Western Australia from 26 - 27 Nov 2015 (Thursday and Friday). The two day program will include the welcome reception, keynotes and oral presentations, advisory board and general meeting, and industry discussions.

Full abstracts including the title, authors (please indicate who is the presenter) and a short abstract, are invited to submit by **31 Aug 2015** to junli@curtin.edu.au.

Special Issue

Authors/presenters of the 7th ANSHM workshop are welcome to submit a journal paper for peer-review and possible publication in a special issue entitled "*Recent Advances in Structural Health Monitoring: Research in Australia*" in International Journal of Lifecycle Performance Engineering. http://www.inderscience.com/jhome.php?jcode=ijlcpe

The key dates are as follows:
Submission of full manuscripts: *31 March 2016*
Notification to authors: *31 May 2016*
Final versions due: *31 July 2016*

Registration

This is a registration fee free event, however, RSVP is necessary. Please send an email to Jun Li to register your attendance by **31 Oct 2015**.

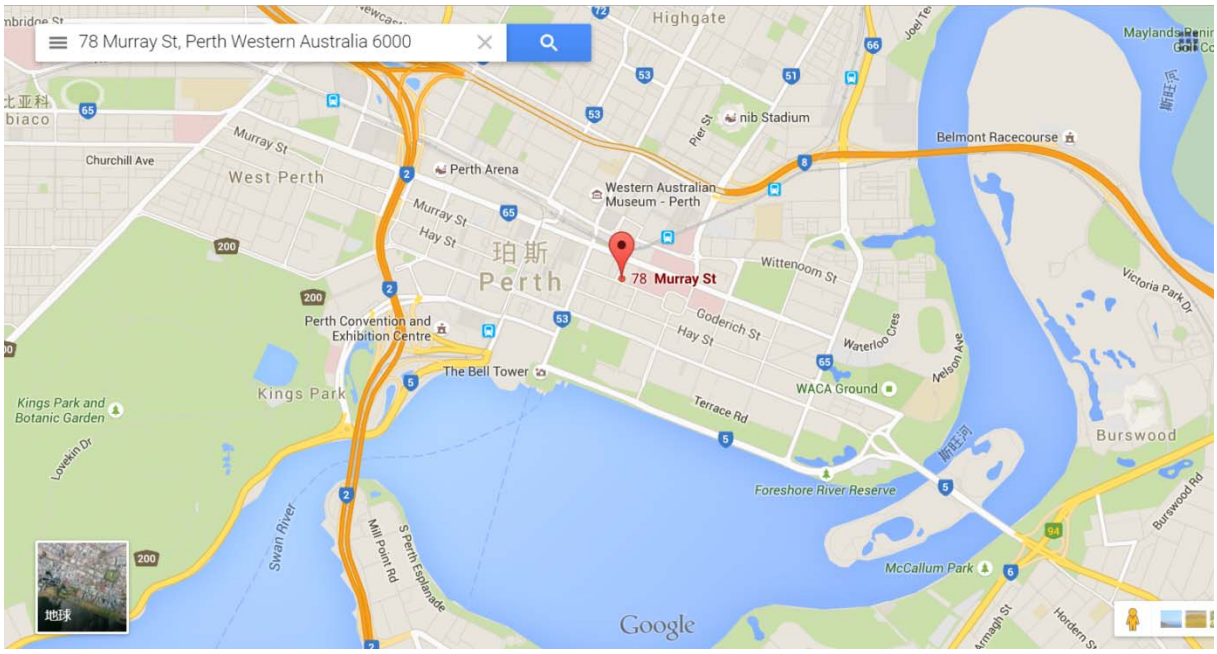
Received Abstracts by 6 August 2015

Authors	Affiliation	Title
Brian Uy	University of New South Wales	SHM techniques for steel and composite structures
Ching-Tai Ng, Munawwar Mohabuth, Andrei Kotousov	University of Adelaide	Research and Development on Structural Health Monitoring at University of Adelaide: Modal Identification and In-situ Stress Monitoring
Mehrisadat Makki Alamdari[1], Nick Stefani[1], Nguyen Lu Dang Khoa[1], Peter Runcie[1], Bijan Samali[2], Jianchun Li[3]	1. NICTA 2. University of Western Sydney 3. University of Technology Sydney	Condition Assessment of Steel Type Structures Subject to Progressive Multiple Damage Using Principal Component Analysis Along With Unsupervised Support Vector Machine
Hamed Kalhori[1], Mehri Makki Alamdari[1], Bijan Samali[2], Xinqun Zhu[2], Peter Runcie[1]	1. NICTA 2. University of Western Sydney	Bridge Weigh-In-Motion based on Influence Line Estimation
Jun Jo, Hong Guan, Michael Blumenstein	Griffith University	Feature-based Crack Detection using a Drone for Bridge Inspection
Johnson Shen	University of New South Wales	Serviceability Assessment and Corrosion Monitoring of Geopolymer Concrete Structures
Xingyu Fan, Jun Li, Hong Hao	Curtin University	Impedance based SHM with new damage indices

Tentative Program

Time/Date	26 Nov 2015 Thursday	27 Nov 2015 Friday
8:30-9:15	Welcome Reception/Registration	Industry discussions
9:15-9:30	Opening Speech	
9:30-10:30	Presentations	Presentations
10:30-11:00	Coffee break	Coffee break
11:00-12:30	Presentations	Annual General Meeting
12:30-14:00	Lunch	Lunch/Close
14:00-15:00	Presentations	
15:00-15:30	Coffee break	
15:30-17:30	Advisory Board Meeting	
18:00-20:30	Work Dinner (ABD & ECM members)	

Venue Location

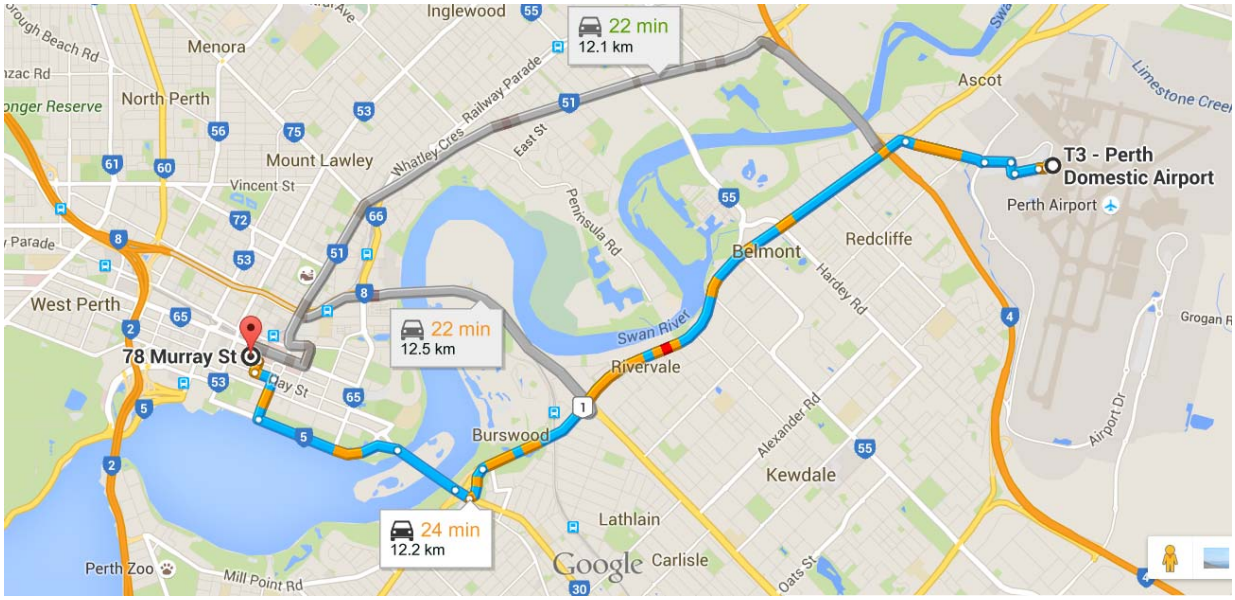


78 Murray Street (corner of Murray & Pier Streets), Perth, WA 6000

Transportation

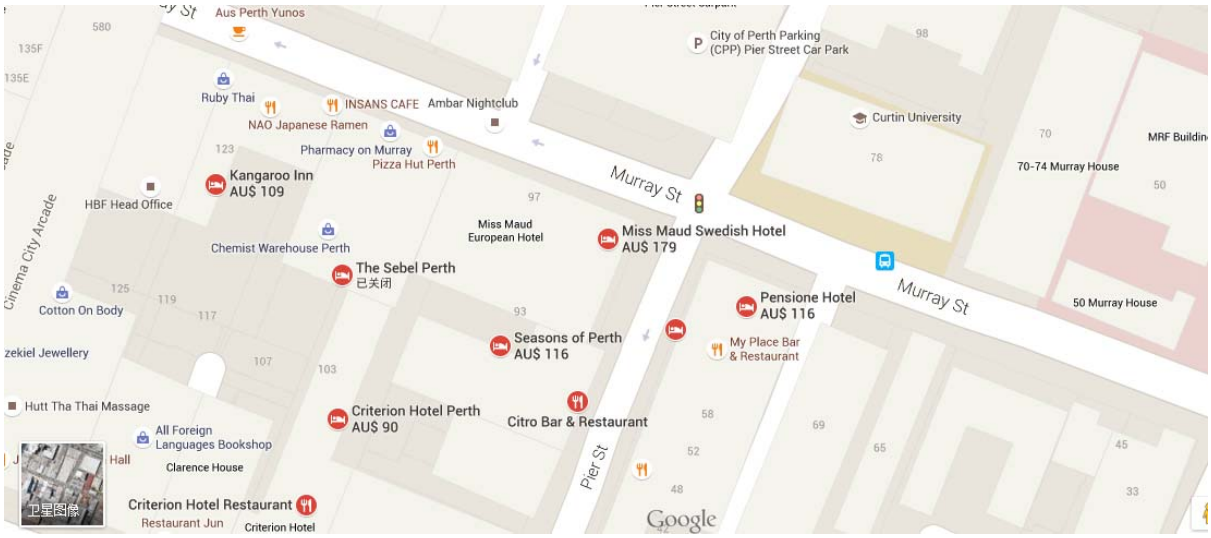
Perth Domestic Airport T3/T4 to 78 Murray Street, Perth City

1. Taxi, about 25 mins, 12 kms, fare may vary between AUD35-50



2. CONNECT BUS service, stops at The Kings Perth Hotel. A bus every one hour, AUD15. Timetables: please see http://www.perthairportconnect.com.au/timetable.html

Accommodation



Suggested Hotels (All the prices (pert night) checked on 6 August, may vary at your booking time)

1. Miss Maud Swedish Hotel http://www.missmaudhotel.com.au/
   1 min walk, breakfast included, free Wifi, No parking available

i) Standard Queen AUD180, 15m^2
Advance booking AUD152

ii) Superior Queen AUD 218, 18m^2
Advance booking AUD 184

2. Seasons of Perth http://www.seasonsofperth.com.au/
   1 min walk, Wifi charge apply, no breakfast included, private parking daily AUD30

i)Standard Double Room AUD180, 36m^2

ii)Executive Suite AUD299, 46m^2

3 Mercure Hotel
http://www.accorhotels.com/gb/hotel-1754-mercure-perth/index.shtml
4 mins walk, breakfast AUD32, Wifi charge apply, private parking daily AUD35

i) Early bird Standard Room AUD215, 25m^2 ii)Superior Room AUD251, 32m^2

4 Kings Perth Hotel http://www.kingshotel.com.au/
3 mins walk, no breakfast included, free Wifi, private parking daily AUD15

i)Standard Double AUD229, 29m^2 ii)Superior Queen AUD279, 28m^2

5 Duxton Hotel http://www.perth.duxtonhotels.com/
7 mins walk, breakfast AUD38, free Wifi, private parking daily AUD48

i)King size AUD270, 29m^2 ii) King Room Riverview AUD306, 29m^2

More options at www.booking.com or au.hotels.com