



Australian Network of Structural Health Monitoring (ANSHM)

Introduction

The Australian Network of Structural Health Monitoring (ANSHM) has set up to raise the recognition of Structural Health Monitoring (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 develop economical asset management plans. Actually SHM has now been accepted as a justified effort for civil structures. It is a worldwide trend to install a SHM systems on a significant structures, 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 Australian Network of Structural Health Monitoring (ANSHM) on 30 June 2009 during the 1st ANSHM Workshop. The researchers have expertise in structural engineering, and SHM areas with proven track records.

The objectives of the Association are to promote and advance the Field of Structural Health Monitoring in Australia on behalf of Members, and specifically:

- 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.



CALL FOR MEMBERSHIP

ANSHM now invites relevant Australian industries and universities to join this network for free. Currently, we have members from 45 organizations which include 20 Universities, 16 Private Companies, 6 Road Authorities and 3 Research Organizations. These are: Australian Rail Track Corporation, Main Roads WA, NZ Transport Authority, QLD Department of Transport and Main Roads, NSW Roads and Maritime Services, VicRoads, ARRB, CSIRO, Data61, AECOM, AMOG Consulting, Arup, Aspec Engineering, Bentley Systems, Heywood Engg. Solns, IDS Australia, Meriton, Monitor Optics Systems, NPO SODIS, NVMS, Reliablelines, The Sterling Group, Rockfield Technologies, Site Geotechnical, Transurban, The University of Adelaide, Curtin University, Deakin University, Griffith University, James Cook University, The University of Melbourne, Monash University, The University of Newcastle, QUT, RMIT, Southern Cross University, Swinburne University, The University of Southern Queensland, The University of Sydney, The University of New South Wales, University of Technology, Sydney, The University of Western Australia, Western Sydney University, Victoria University, and University of Wollongong.

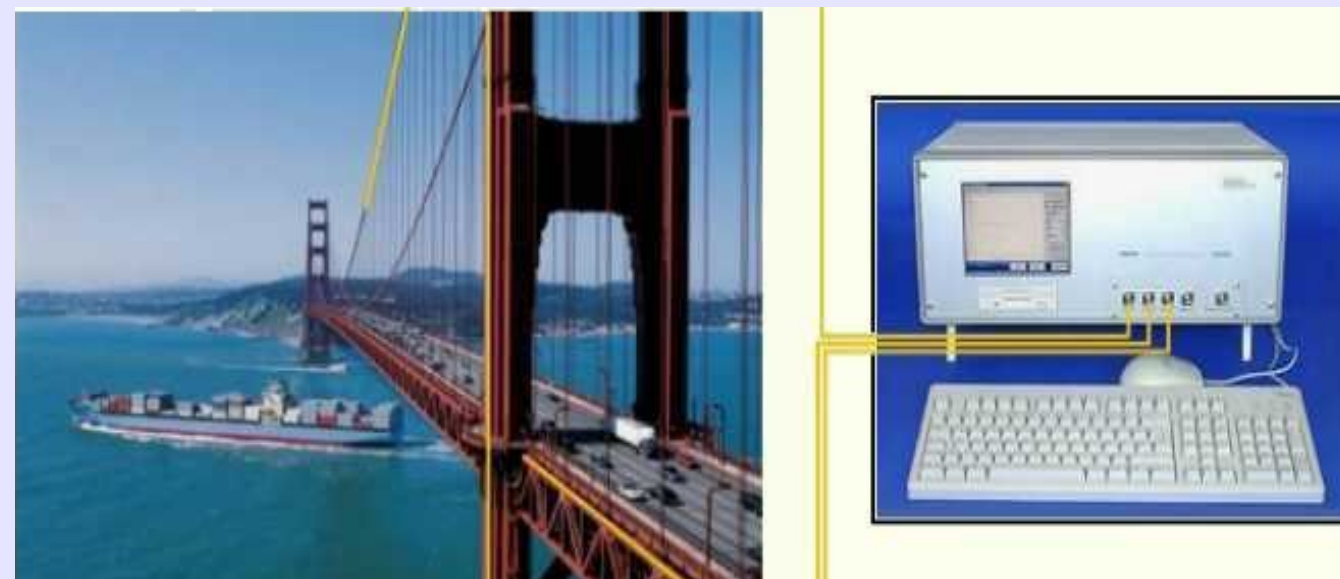
An individual or a group of individuals of an academic institution, university, industrial or research organisation or a government body with a serious interest in the Field, which supportive of the objectives of the Association is welcome to join ANSHM and can apply to become a Member through its Executive Committee.

ANSHM is a non-profit organisation comprising of academics and engineers with expertise in structural engineering and SHM areas with proven track records. It has been set up to raise the recognition of Structural Health Monitoring (SHM) in Australia.

We are here to help the engineering community and authorities to find cost effective and optimum solutions to monitor, maintain and manage their infrastructure.

OUR EXPERTISE

- Structural Health Monitoring
- Structural reliability and safety
- National & regional infrastructures
- Road & railway bridges
- Heritage buildings
- Non-destructive evaluation, x-ray, infrared, or ultrasonic techniques
- Alternative maintenance and repair strategies



EFFECTIVE BRIDGE MANAGEMENT

BRIDGE RATING

ON-STRUCTURE SENSING SYSTEMS

RAPID DECISION MAKING

MAINTENANCE SOLUTIONS



ANSHM in brief

Structural engineers and academics with expertise and knowledge in areas of Structural Health Monitoring including (but not limited to) sensor technology, non-destructive testing and damage detection techniques came together and established a new ANSHM network to work closely with industries and universities nationally and internationally in order to function effectively as an individual and as part of a multi-disciplinary team to sustain our national and regional infrastructure.

ANSHM Advisory Board

- Tommy Chan, President (QUT)
- Wije Ariyaratne (RMS)
- Wenhui Duan (Monash U)
- Hong Hao (Curtin U/UWA)
- Nick Haritos (Melbourne U)
- Tim Heldt (ARRB)
- Robert Heywood (Heywood Engineering Solutions)
- Kenneth Jacobs (QDTMR)
- Yew Chen Koay (Vic Roads)
- Yew-Chaye Loo (Griffith U)
- Bell Mark (IDS)
- Richard Morgan (Aspec Engineering Pty Ltd)
- Torill Pape (AECOM)
- Govinda Pandey (Rockfield)
- Peter Prasad (ARTC)
- Mahes Rajakaruna (WA Main Roads)
- Bijan Samali (WSU)
- Mark Stewart (U Newcastle)
- David Thambiratnam (QUT)
- Brian Uy (U Sydney)
- Xiaoming Wang (Swinburne University)
- Barry Wright (NZTA)

Executive Committee

- President: **Tommy Chan** (Queensland University of Technology)
- Deputy President: **Jianchun Li** (U of Technology, Sydney)

Executive Committee Officers:

- **Hong Guan** (Griffith University)
- **Ulrike Dackermann** (University of New South Wales)
- **Lei Hou** (Griffith University)
- **Jun Li** (Curtin University)
- **Mehrisadat Makki Alamdari** (University of New South Wales)
- **Alex Ching-Tai Ng** (The University of Adelaide)
- **Tuan Duc Ngo** (Melbourne University)
- **Andy Nguyen** (University of Southern Queensland)
- **Richard Yang** (University of Western Sydney)
- **Xinqun Zhu** (U of Technology, Sydney)

Contacts

- President: **Prof Tommy Chan** (QUT), Email: tommy.chan@qut.edu.au
- Membership Application: **Dr Alex Ching-Tai Ng** (The University of Adelaide), Email: alex.ng@adelaide.edu.au

ANSHM Workshops:

- 1st Workshop, 30 Jun 2009, QUT, Brisbane
- 2nd Workshop, 5-6 Dec 2010, University of Technology Sydney
- 3rd Workshop, 1-2 Dec, 2011, Deakin University, Melbourne
- 4th Workshop, 21-22 Nov, 2012, University of Adelaide
- 5th Workshop, 20-21 Nov, 2013, University of Melbourne
- 6th Workshop, 8-9 Dec, 2014, Western Sydney University
- 7th Workshop, 26-27 Nov 2015, Curtin University
- 8th Workshop, 26-27 Nov 2016, Monash University
- 9th Workshop, 5-7 Dec 2017 (niSHMII-8), QUT, Brisbane
- 10th Workshop, 10-12 Dec 2018, University of Wollongong

ANSHM Publications:

- A book entitled "Structural Health Monitoring in Australia", 2011
- Special issue in Advances in Structural Eng., May, 2012.
- Special issue in Australian Journal of Structural Eng., 2013
- Special issue in Journal of Civil Structural Health Monitoring, 2013
- Special issue in Journal of Structural Health Monitoring in 2014
- Special issue in Structural Monitoring and Maintenance, 2015
- Special issue in Electronic Journal of Structural Eng., 2015
- Special issue in Earthquakes and Structures, 2016
- Special issue in Journal of Civil Structural Health Monitoring, 2016
- Special issue in Journal of Civil Structural Health Monitoring, 2018

**SUSTAINABLE
INFRASTRUCTURE**

Visit ANSHM Web Site:

www.anshm.org.au

