

Civil infrastructure such as buildings, bridges, dams and multipurpose towers are built to last several decades. However, during their service lives, progressive deterioration and sudden damage can occur due to changes in load patterns, environmental effects and random events such as impacts. The retrofit and reconstruction of failed structure will involve large costs for infrastructure owners. Structural health monitoring (SHM) offers economical, efficient and intelligent technologies to manage the operation and maintenance of infrastructure; thereby improving safety, increasing longevity and reducing maintenance.

This workshop introduces an opportunity for academic-industry collaboration to form a Training Centre/Research Hub under the Australian Research Council (ARC) Industry Transformation Research Program (ITRP) to provide research and training to help vital Australian industries across infrastructure-rich sectors (e.g., transport, energy, utilities, mining) address challenges in SHM and enable commercial, resilience, sustainability, and social goals.



Keynote speeches by invited speakers from academic and industry will be delivered in the workshop, covering SHM technologies, research and challenges. There will also be presentations from the industry to share their challenges and what they expect the ITRH/ITTC could help to work for them.

Objectives of the workshop:

- Highlighting an urgent need of SHM for various infrastructures (e.g., transport, energy, utilities, mining) as evidenced by recent accidents regarding the collapse of structures.
- □ Increasing awareness of SHM by linking knowledge between academic and industry/government.
- Calling for participation to form an ARC-funded Training Centre/Research Hub for shaping future infrastructure operations, maintenance, and management.

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