



# IALCCE 2012

Third International Symposium  
on Life-Cycle Civil Engineering

3 - 6 October 2012  
Hofburg Palace, Vienna, Austria

## IALCCE

The Symposium is organized on behalf of International Association for Life-Cycle Civil Engineering (IALCCE) under the auspices of the University of Natural Resources and Life Sciences. IALCCE ([www.ialcce.org](http://www.ialcce.org)) is a young Association founded in October 2006. Its activities encompass all aspects of life-cycle assessment, design, maintenance, rehabilitation, and monitoring of civil engineering systems.

The International Symposium on Life-Cycle Civil Engineering is a biennial event. In 2012, Austria will host the Symposium for the first time. The IALCCE 2012 Symposium provides an opportunity for academics, engineers, architects, and builders from Austria, Europe, and around the world to keep themselves up to date with latest developments in the field of life-cycle civil engineering.

## Special - Sessions SS 3-1:

### Structural Health Monitoring of Civil Infrastructures in a Life-Cycle Analysis

Christian F. Cremona, Commissariat Général au Développement Durable, Paris, France  
André D. Orcesi, French Institute of Science and Technology for Transport, Paris, France

The paradigm of structural health monitoring is based on the development of reliable and robust indicators able to detect, locate, quantify and predict damage. In the context of ageing, structural degradation, increasing loads, and natural hazards, stakeholders have to satisfy serviceability and safety constraints, under uncertainty and limited financial resources.

In this context, one important objective is to analyze cost benefit aspects of structural monitoring, and develop monitoring based indicators.

The aim of this special session is to present recent advances in the integration of structural health monitoring in a life-cycle analysis.

The objective is to encompass aspects of data acquisition, processing and control, data visualization and reporting, data post-processing and management in a life-cycle analysis by complying with the desired performance not only at the initial stage when infrastructures are supposed to be in the intact state, but also during their expected life-cycle.