



# 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 1-5:

### Probabilistic Lifetime Assessment of Concrete Structures under Combined Environmental Attack

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The service life of concrete elements is strongly affected by different degradation mechanisms.

Although numerous research results are available on individual degradation mechanisms such as chloride and sulphate penetration, the combined effect of different aggressive environments has not been studied intensively.

Therefore, the proposed session will focus on:

- Modeling and experimental verification of combined attack on concrete structures, i.e. the modification of existing models to account for combined attack by e.g. chlorides and sulphates, carbonation and acid attack, etc. as well as the development of new models for these combined phenomena.
- Quantitative risk analyses related to the life time assessment of concrete structures exposed to (combined) environmental attack, i.e. focusing on distributional assumptions, stochastic parameters, possible Bayesian updating based on additional laboratory or in-situ testing, etc.
- Decision making related to the life-cycle performance of structures exposed to (combined) environmental attack.