

# IALCCE 2020

## The Seventh International Symposium on Life-Cycle Civil Engineering

27-30 October 2020, Shanghai, China



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Life-Cycle Civil Engineering*

Nowadays, people have realized the importance of creating a sustainable society to avoid or alleviate problems like climate change, environmental pollution or economic crisis. Therefore, the life-cycle thinking of civil engineering is discussed more and more frequently.

Civil engineering is mainly focused on design and construction during the past days, but contemporary society needs civil engineering to pay attention to more aspects, such as inspection, monitoring, repair, maintenance and optimal management of structures and infrastructures, in order to effectively manage the function of these structures throughout their lifetime. Considering these needs, the objective of the International Association for Life-Cycle Civil Engineering (IALCCE) is to promote international cooperation in this field of expertise to enhance the welfare of society. Its mission is to become the premier international organization for the advancement of the life-cycle civil engineering.

Previous editions of the bi-annual IALCCE symposium took place in Varenna, Lake Como (2008), Taipei (2010), Vienna (2012), Tokyo (2014), Delft (2016) and Ghent (2018). The Seventh International Symposium on Life Cycle Civil Engineering (IALCCE 2020) will be organized on behalf of IALCCE under the auspices of Tongji University in Shanghai (China) on October 27-30, 2020.

All major aspects of life-cycle engineering are addressed, with special focus on structural damage processes, life-cycle design, inspection, monitoring, assessment, maintenance and rehabilitation, life-cycle cost of structures and infrastructures, life-cycle performance of special structures, and life-cycle oriented computational tools.

We are looking forward to welcome all of you in Shanghai in 2020!

### Mini-Symposium MS-10:

Condition Assessment Indices in the Life Cycle of Structures

### Objective of the Mini-Symposium MS-10



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Structures might deteriorate due to imprecise design, environmental erosion, excessive load, material aging, etc. This will cause the malfunction of the structures regarding the requirement of serviceability, performance and safety in the life cycle of structures. To prevent structural defect and even sudden failures of structures, different types of indices have been proposed to evaluate the condition of newly built or existing structures. Some latest findings on stress-based, deformation-based indices will be presented. The main content of the mini symposium is to exchange the state-of-the-art and effective indices for condition assessment of structures under practical scenarios and to compare them with other methods to assess structural safety, and the implications of different technologies for SHM. Practitioners and researchers are welcome to discuss and share experience.