IALCCE 2020

The Seventh International Symposium on Life-Cycle Civil Engineering

27-30 October 2020, Shanghai, China

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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-13:

Life Cycle Civil Engineering: Decarbonization and Digitalization

Objective of the Mini-Symposium MS-13

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As so called "40%" sector, built environment (buildings and infrastructure) are identified as a key sector to global warming mitigation. Recently, Building information modelling (BIM), IOT, and AI, are proposed to improve the efficiency for construction and running built environment. The built environment, in particular, needs big data tools and architectures for to extend service life and minimize the life cycle energy and emissions. Digitalization of built environment will play an important role to achieve UN SDG 9, 11, and 12. As such, this MS will invite multidiscipline studies to discuss "how digitalization can support decarbonization of built environment with life cycle perspective".