Preface

The rising urbanization has constituted a mounting threat to cultural heritage sites around the world, especially in developing countries. Natural and human-induced environmental hazards are causing more damages to historic constructions than ever. Conservation of historic constructions is facing new challenges induced by this wave of immigration and industrialization.

New concepts and technologies are in need, not only for daily care and maintenance, but also for strengthening and retrofitting of the buildings to meet the modern standards and practice of living. Historic constructions, especially those still in use, are normally subjected to changes of occupancy, material degradation and environmental hazards. New dedications are needed to maintain the cultural values as well as guarantee the safety, serviceability and durability of the historic constructions.

Started from 1995, the Structural Analysis of Historic Construction conference has established itself as the leading global scientific conference on structural analysis of historic constructions, continuing with increasing success all over the world, i.e. in Barcelona (1995 and 1998), Guimaraes (2001), Padova (2004), New Delhi (2006) and the UK (2008), in an effort to enhance the technology improvement and provide a platform for sharing experience amongst the researchers and practicing engineers from different countries.

The upcoming conference will be organized and delivered by the Department of Building Engineering of Tongji University and China Civil Engineering Society at October 6-8 2010, Shanghai China. The conference will be held in the “129” auditorium of Tongji University, which was originally built at 1942 and retrofitted at 2001. Since the retrofitting, the “129” auditorium has been used as the main venue for many successful international and domestic conferences and gatherings.

This conference is co-organized by Shanghai Research Institute of Building Sciences and is sponsored by the National Key Technology R&D Program of China (Grant No. 2006BAJ03A07), the National “211” Plan of China, the National Natural Science Foundation of China and the Kwang-Hua Fund for College of Civil Engineering, Tongji University. This sponsorship has made it possible for the organizing work as well as the successful delivery of the conference.

The conference organizing committee has received more than 280 abstracts from all over the world, from which 199 papers are selected by the Scientific Committee. The accepted submissions
are organized in the two volumes of the conference proceedings, with 9 invited or keynote papers presented by speakers of international renown in the area of conservation of historic constructions. The topics of interest span the entire spectrum of structural analysis of historic constructions, including Material and Structural Configuration, Structural Inspection and Monitoring, Structural Analysis and Assessment, Seismic Analysis and Evaluation, Strengthening Technologies, Rehabilitation and Retrofitting, and Sustainable Utilization of Historic Constructions in China.

It is the hope of the organizing committee that this conference will stimulate scientists and practitioners in further development of theories and technologies and will fruitfully help them in their research and engineering practices of conservation of historic constructions, now and tomorrow.

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