

## Preface

SMAR 2015 is the third conference on Smart Monitoring, Assessment and Rehabilitation of Civil Structures to be held in Antalya, Turkey, from 7 to 9 September 2015 co-organized by Empa, the Swiss Federal Laboratories for Materials Science and Technology and ITU, Istanbul Technical University. It is a follow-up of the biannual successful SMAR conference series starting in 2011 in Dubai and 2013 in Istanbul. SMAR 2015 proceeds with presenting innovative materials and technologies for structural health monitoring as well as rehabilitation, such as application of smart fiber optic sensors Fibre Reinforced Polymers, Shape Memory Alloys, and much more.

As an interdisciplinary research institute of the ETH Domain, Empa, the Swiss Federal Laboratories for Materials Science and Technology, conducts cutting-edge materials and technology research. Empa's R&D activities focus on meeting the requirements of industry and the needs of society, and thus link applications-oriented research to the practical implementation of new ideas.

Istanbul Technical University (ITU) was established in 1773 and is a state university which defines and continues to update methods of engineering and architecture in Turkey. It provides its students with innovative educational facilities while retaining traditional values, as well as using its strong international contacts to mould young, talented individuals who can compete not only within their country borders but also in the global arena. With its educational facilities, social life and strong institutional contacts, ITU has always been preferred by Turkey's most distinguished students since its foundation and has achieved justified respect.

The historical city of Antalya with a pleasant weather in September is hosting 170 scientists and experts from around the world to present their solutions and findings in the following areas:

- Structural Health Monitoring
- Performance and damage assessment
- Damage control, repair and strengthening, fire protection
- Durability of material systems and structures related to harsh environment
- Practical applications and case studies

In addition to the regular sessions, several special sessions such as 'Shape memory alloys for civil constructions' and 'Probabilistic monitoring and assessment of civil structures' were organized.

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SMAR 2015, Antalya TR  
7 – 9 September 2015 Antalya TR

SMAR 2015 is sponsored jointly by the International Society for Structural Health Monitoring of Intelligent Infrastructure (ISHMII) and International Institute of FRP in Construction (IIFC) and International Union of Laboratories and Experts in Construction Materials, Systems and Structures (rilem).

The proceedings contain a total of 170 papers written by authors from around 34 countries worldwide. The contributions include six interesting Keynote Papers on application of new materials and systems as well as practical experiences on long span bridges. Furthermore, there is a healthy balance between papers of theoretical nature concerned with various aspects of computational issues and those of a more practical nature.

We would like to thank all authors for preparing their work towards this compilation, which will undoubtedly serve as a useful reference to practitioners, researchers, students and academics and allied disciplines. Special thanks are due to Members of the International Scientific Committee, who reviewed the papers carefully. The support of the Sponsoring Organizations and Companies is gratefully acknowledged. We are indebted to our colleagues in Organization Committee. Thanks to the ITU and Empa conference team, Pinar Inci and Michele Köhli the conference secretaries, for their tireless efforts and quick responses to many demands of the conference.

Masoud Motavalli (Empa) and Alper Ilki (ITU)

Co-Chairs, SMAR 2015

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