

Preface

The collection of works published in this volume introduces the subject matter and contents of papers presented during the 10th International Conference on Advanced Models and New Concepts in Concrete and Masonry Structures **AMCM2020**. The conference was organized on line in Lublin, Poland, on October 21 – 23, 2020.

The objective of the **AMCM2020** conference is to bring together scientists and engineers from around the world to share recent achievements and the latest developments in the fields of concrete and masonry engineering, mechanics and computation. The **AMCM2020** intends to be a forum for discussion of the present and future trends in experimental, analytical and numerical investigations on concrete and masonry structures. The conference provides an opportunity to disseminate cross-disciplinary knowledge among researchers and civil engineers from Europe and numerous other countries outside the continent. It is organized once every three years to track and update developments in concrete and masonry structures research. After successful nine editions held in Białystok (1993), Łódź (1996), Wrocław/Świeradów (1999), Kraków (2002), Ustroń/Gliwice (2005), Łódź (2008), Kraków (2011), Wrocław (2014) and Gliwice (2017), the conference in 2020 is being organized by Lublin University of Technology in cooperation with International Federation for Structural Concrete – Polish Group and Polish Union of Civil Engineers and Technicians– Lublin Scientific Committee.

The main topics covered in the accepted papers include the following:

1. Models and numerical simulations for concrete and masonry at macro/meso/micro-scales.
2. Experiments, analytical and numerical models for concrete and masonry structures.
3. Advances in reinforced and pre-stressed concrete and masonry structures.
4. Behavior and application of HPC structures.
5. Application of FRP materials – theory, practice.
6. Durability assessment and environmental impact upon concrete and masonry structures.
7. Performance-based design of concrete and masonry structures.
8. Impact of cyclic and long-term loading on concrete and masonry structures.
9. Safety and reliability of concrete and masonry structures.

The volume contains 23 papers with preface submitted and accepted by the Scientific Committee of AMCM2020 conference. Particular thanks are due to plenary speakers and all authors of the papers to be presented during the event. Grateful thanks are extended to members of the Honorary Advisory Committee and Scientific Committee for their significant help in reviewing the papers and sharing their extensive knowledge and experience.

The tireless efforts and creative attitude of the members of the Organizing Committee during preparations for this event are highly appreciated. Last but not least, special credit is due to invited sponsors for their invaluable contribution and financial support.

We sincerely hope that the papers presented during the 10th International Conference on Advanced Models and New Concepts in Concrete and Masonry Structures will contribute to the development of science and technology in the field of concrete and masonry structures.



Anna Halicka

Chair of the Scientific
Committee



Marta Słowik

Chair of the Organizing
Committee



Grzegorz L. Golewski

Vice-Chair of the Organizing
Committee