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Preface

The Department of Civil Engineering, Khulna University of Engineering & Technology (KUET) has been successfully organizing the International Conference on Civil Engineering for Sustainable Development (ICCESD) in every even year from 2012. This time we are very pleased to organize fourth ICCESD-2018. The conference is now going to be held during February 9-11, 2018 at KUET campus, Khulna, Bangladesh. KUET is one of the leading public universities of Bangladesh, which is located at the southwestern coastal region. The overall goal of this conference is to create a successful forum where Academicians, Researchers, Scientists, Engineers and Scholars in all area of Civil Engineering will have the opportunity to present their views, ideas and experiences on developments and requirements in Civil Engineering and to contribute in shearing Civil Engineering knowledge.

In ICCESD-2018, key note lectures will be delivered and contributed papers will be presented on the broader areas of Civil Engineering. It is anticipated that the conference will open a window of exchanging the scientific and technological information among all the participants from home and abroad. Moreover, it is expected to build a common platform for sharing the ideas among the Engineers and Academicians from different countries in the world having different experiences in research skills, practices and standards. It is also expected that it would promote the international collaboration on sustainable technologies in all the branches of Civil Engineering with respect to climate change. The theme of this conference includes the contributions from Environmental Engineering, Geotechnical Engineering, Structural Engineering, Transportation Engineering, Fire Engineering, Water Resources Engineering and Construction Engineering and Management.

After a three-step review process a total of 134 technical papers, out of 201 full length papers, have been selected for publication in the proceedings. A number of the papers have been lightly edited to even out the style and to revise the contents based on reviewers' comments. However, the final responsibility for the contents, quality and the presentation of the paper is held by each individual author. The executive summary of the papers are printed and hence published in this proceedings. However, full papers are available in a CD-ROM enclosed with the proceedings.

I would like to acknowledge the enormous efforts of the authors who have contributed by submitting their papers. I would like to express the gratitude to all reviewers for their careful evaluation, constructive comments and suggestions to improve the manuscript. Heartiest thanks to the Editorial Committee of ICCESD-2018 specially to Prof. Dr. Abu Zakir Morshed, Dr. Md. Mahfuzur Rahman, Mr. Sheikh Shakib and Mr. Md. Maruf Molla, who played a significant role in editing the proceedings including composing the text, figures, tables, and photographs, which is really a tedious job. Finally the professional encouragements and tireless supports of our all colleagues from all committees formed for ICCESD-2018 are gratefully acknowledged.

The sponsoring facilities offered by AmanCEM Cement, Seven Rings Cement and CRTS (Civil) are highly appreciated and acknowledged.

We hope that this initiative will be sustained in the next conference ICCESD-2020.

On behalf of the Organizing Committee,

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