

First Announcement and Call for Participation

International Workshop on Seawater Sea-sand Concrete (SSC) Structures Reinforced with FRP Composites

13 December 2016, Hong Kong, China

Organised by

Department of Civil and Environmental Engineering and Research Institute for Sustainable Urban Development
The Hong Kong Polytechnic University

Background and Aim

Steel-reinforced concrete structures in coastal/marine environments generally suffer from severe deterioration problems mainly due to the corrosion of steel. The use of fibre-reinforced polymer (FRP) to replace steel in concrete structures to eliminate the steel corrosion problem is thus gaining increasing acceptance. If FRP is used as the reinforcing material, then locally available seawater and sea-sand can be directly used to make concrete instead of freshwater and river sand as FRP is expected to be little affected by chloride ions. The resulting structures, referred to as FRP-reinforced seawater sea-sand concrete (SSC) structures, offer many significant advantages, including: savings in material transportation cost, better protection of rivers due to reduced sand mining, and savings in freshwater which is a scarce resource on the planet. Due to these advantages, FRP-SSC structures have attracted the attention of an increasing number of researchers over the past few years, although existing research on the topic is still very limited.

This workshop aims to provide the first international forum for in-depth exchanges on FRP-SSC structures and closely related topics (e.g., behaviour of SSC; field exposure tests of FRP bars and tubes in marine environments) to achieve the following specific objectives:

- (1) Examine in detail the advantages and challenges brought about by FRP-SSC structures;
- (2) Provide a survey of research projects being undertaken or planned around the world on FRP-SSC structures and closely related topics;
- (3) Identify key issues to be tackled before FRP-SSC structures can be widely accepted in practice; and
- (4) Explore opportunities for international collaboration to accelerate research progress in the area.

Organizing Committee

Chair: Professor Jin-Guang TENG (cejgteng@polyu.edu.hk)

Co-chair: Dr. Jian-Guo DAI (cejgdai@polyu.edu.hk)

Secretariat: Dr. Guang-ming CHEN (hustcgm@gmail.com)
Ms. Anisha TSANG (tltsang@polyu.edu.hk)

Workshop Programme

The workshop will last for one whole day and will be held on 13 December as a pre-CICE 2016 (14-16 December) workshop. The workshop will consist of invited presentations and extensive discussions. Each invited speaker will be given a 30-minute time slot: 15 to 20 minutes for the presentation and 10 to 15 minutes for the follow-on discussions.

Call for Expression of Interest and Nomination of Invited Speakers

Participants of CICE who would like to attend the Workshop should send a simple email to Dr. Guang-Ming CHEN at hustcgm@gmail.com to register their interest in attending the Workshop by **30 September 2016**. The Workshop does not charge a registration fee, but this registration is necessary to guarantee a seat and for the proper planning of the Workshop.

We are in the process of compiling a list of invited speakers, and we welcome nominations/self-nominations from the participants of CICE 2016.