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SUPPORTING ORGANIZATION
HAKI, Indonesian Society of Civil and Structural Engineering
ACF, Asian Concrete Federation
JSCE, Japan Society of Civil Engineers
FIB, International Federation for Structural Concrete
IABSE, International Association for Bridge and Structural Engineering
Preface

Dear participants and distinguished readers,

This International Conference on Sustainable Civil Engineering Structures and Construction Materials (SCESCM) is the 3rd in the series of a two-yearly event. The first and second conferences were conducted in Yogyakarta-Indonesia, and ever since this organization has grown, both in size, quality and performance. Initiated in 2012 by the Gadjah Mada University, the Karlsruhe Institute of Technology in Germany, and Hokkaido University in Japan, this organization is now supported by eleven major universities from Indonesia, The Netherlands and the United States. This 2016 conference has received over 400 papers originating from 27 countries. Professional organizations supporting the 3rd SCESCM are the Indonesian Society of Civil and Structural Engineers (HAKI), the Asian Concrete Federation (ACF), the Japan Society of Civil Engineers (JSCE), the International Federation for Structural Concrete (fib-CEB), and the International Association for Bridge and Structural Engineering (IABSE).

This 3rd SCESCM conference is also distinguished by the existence of a special session conducted in cooperation with the Ministry of Public Works and Housing, Indonesia. This special session is designated as Special Topics in Public Works Research and Technology. The Sustainability issue has been of major concern for the past decades, and its awareness became a primary subject and source for conservation and preservation of natural earth resources. The Ministry of Public Works and Housing is one of the largest ministrials in Indonesia, and it fulfills a foremost role in the physical and intellectual development of the country. All key-constructions and infrastructures in Indonesia are accommodated, and fall under the responsibility of this ministry. A constant improvement in human resource quality by means of research and continuing education stands frontline for this ministry, enabling to keep up with the ever emerging fast global progress in technology.

Main concentrations for creating sustainable structures and systems are contemplated on the use of non-regeneration-able materials, while further attention has to be paid on material production and structural systems that generate hazardous waste, both directly or indirectly. The methodology behind the solution to these issues is a complex and ever emerging combination of variables, where research and technology stand central. This special session will host the research publications and research products of researchers, policy makers, educators and Department of Public Work and Housing Officials that were conducted over a period of two years. The majority of the publications are based on state-of-the-art development of structural systems and constructions of existing projects.

This event was made possible by the contributions and hard work of all supporting institutions and is hoped to that its outcome serves as a contribution to the future development in sustainable technology for constructions and structures.

Conference Chairman,

Prof. Ir. Henricus Priyosulistyo M.Sc, Ph.D.
Welcoming Speech

Dear Distinguish Guests, Guest Speakers, Ministry of Public Work and Housing Officials, Colleagues, Participants, Members of the supporting Universities, Committee Members, Ladies and Gentlemen,

Welcome to Bali, and welcome to this Special Topics in Public Works Research and Technology session that is conducted in cooperation with the 3rd International Conference on Sustainable Civil Engineering Structures and Construction Materials (SCESCM). This event will be held from today till the 6th of September 2016 at the Sanur Paradise Hotel in Bali, Indonesia.

This event marks a big milestone in the field of collaboration between the scientific community represented by the academic institutions, and the professional sector represented by among others the Indonesian Society of Civil and Structural Engineers (HAKI), the Asian Concrete Federation (ACF), the Japan Society of Civil Engineers (JSCE), the International Federation for Structural Concrete (fib-CEB), and the International Association for Bridge and Structural Engineering (IABSE), and foremost the government institutions hereby represented by the Department of Public Work and Housing Officials.

The participation of the Ministry of Public Works and Housing is of great importance, since this cooperation has major benefits for both parties. It is hoped that this conference will lead to a continuing long-time collaboration between the SCESCM and the Ministry of Public Works and Housing. The SCESCM has marked itself as one of the leading conferences in Indonesia, and the papers resulted from the past conferences were internationally recognized. The Ministry of Public Works and Housing on the other hand, has long been working together with academic institutions all over the country in improving the scientific quality and knowledge of its official through training and education. This merging through the conference resulted in a special session as part of the SCESCM 2016 conference.

It is hoped that the work, discussions, research disseminations and conclusions will be a valuable contribution to the civil engineering community generally, and the academic institutions and the Department of Public Works and Housing in particular.

I wish you a very pleasant stay in Bali while at the same time enjoying the conference and I thank to all supporting organizations and persons for their hard work to make this event a success and beneficial.

Thanks you very much.

Head of Education and Training Center
For Water Resources and Construction
The Ministry of Public Works and Housing

Dr. Ir. Suprapto, M.Eng
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