

Civil Engineering Research for Industry Symposium 2012 (CERIS 2012)



18th December 2012
at Civil Engineering Auditorium
University of Moratuwa
Sri Lanka

**SYMPOSIUM ON
CIVIL ENGINEERING RESEARCH FOR INDUSTRY-2012**

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Department of Civil Engineering

University of Moratuwa

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CIVIL ENGINEERING RESEARCH FOR INDUSTRY-2012

Proceedings of the Symposium on Civil Engineering Research for Industry-2012

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Message from Head/ Department of Civil Engineering

It is a privilege to issue this message for the second symposium organized by the Department of Civil Engineering on “Civil Engineering Research for Industry – 2012” as the Head of the Department of Civil Engineering. It is an important event for the staff, students and also hope would act as a catalyst to improve collaboration with the industry.

Since the first symposium of this nature held in year 2011 with considerable success, it is likely to become an annual event with the continuation in year 2012. The timing of the symposium is also ideal since it comes immediately after the conclusion of International Conference on Sustainable Built Environment – 2012 (ICSBE – 2012) that has been organized as an annual event and held at Earl’s Regency Hotel in Kandy. This conference is a joint effort of Engineering Faculties of Peradeniya, Moratuwa and Ruhuna universities. The expectation was to have at least few well recognized researchers of the world gracing this symposium at Moratuwa due to their presence in Sri Lanka.

It is the belief that CERIS 2012 will be a window of opportunity for initiating further collaborations that will sharpen the dynamic research culture that has been established by the well qualified and dedicated staff of the Department of Civil Engineering that has 41 academics in its cadre. With a lot of useful research carried out by both undergraduates and post-graduate, there is a need for opportunities to present the research findings. It is hoped that CERIS 2012 will provide another opportunity for dissemination of research and associated knowledge. I wish a tremendous success for this symposium scheduled for 18th of December, 2012.

Prof M T R Jayasinghe,
Senior Professor/ Head of the Department,
University of Moratuwa,
Moratuwa, Sri Lanka.



Message from Dean/ Faculty of Engineering

I wish to congratulate the Department of Civil Engineering of the University of Moratuwa for organising the "Civil Engineering Research for Industry Symposium (CERIS)" scheduled in December 2012, at the Department of Civil Engineering, Faculty of Engineering, University of Moratuwa, Sri Lanka. It is glad to note that a trend of annual research symposium is developing in the Department, commencing with the first symposium arranged one year ago.

CERIS forms a platform to bring together the alumni, the staff and the students of the Department, for sharing their views on the status of the Civil Engineering Research focused on Industry. With the current surge in activities in the civil engineering sphere in the country, fuelled by massive infrastructure development projects being implemented nationally, this symposium is of particular importance to civil engineers in the local industry and civil engineering students alike.

The Department has taken many steps in the recent years to enhance its teaching and research profile, and has been the pioneer and leader in postgraduate education in engineering at the University of Moratuwa. In addition, the staff and students are consistently involved in many state and private sector programmes of national importance. It is my wish that this Symposium, while disseminating new knowledge, would further the desire for conducting applied research in the field of civil engineering.

I wish to convey my thanks to Prof. Thishan Jayasinghe, Head, Department of Civil Engineering, Dr. Udeni Nawagamuwa and Dr. Nalin De Silva, Symposium Secretaries, and the Organising Committee, for organising the Research Symposium CERIS this year.

Prof. U.G. A. Puswewala
Dean, Faculty of Engineering
12 December 2012.



Message from the Vice-Chancellor

I am delighted to note the holding of Civil Engineering Research for Industry Symposium (CERIS) 2012 this year too for the second time making it an important annual event of the Department of Civil Engineering.

I was also pleased to note the enthusiasm of the Department to organize this focused symposium with 15 papers demonstrating its individual contribution for university research. The Department of Civil Engineering is therefore a trend setter for the other departments to drive research and to hold focused research symposia.

One of the goals that the University strives to achieve is to have a thriving and sustainable research and innovation culture in our march towards a world class university. To this end, attempts are made to attract private sector funding leveraging 300% tax concession for research investment by the private sector and international research collaborations in addition to the Senate Research Grants. This is a great opportunity for Civil Engineering to significantly contribute for development of alternative/new materials, new construction technologies, new building components to support rapid infrastructure development of our country which is a pre-requisite for our march towards a middle income nation.

It is my hope that this Symposium will not only disseminate Civil Engineering research findings but also create further opportunities to identify new directions, obtain ideas for more development oriented research and attract further research funding.

While expressing my appreciation to the Head/Department of Civil Engineering and the organizing committee for dedicatedly organizing this Symposium, I wish Civil Engineering Research for Industry Symposium 2012 a great success.

Prof. Ananda Jayawardane
Vice-Chancellor



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