



Joint IBRACON-RILEM Course on Self-Compacting Concrete

Maceio, Brazil, October 2012



Version 02/04/2012 – PROPOSAL TO RILEM-EAC

Introduction



On demand of IBRACON, International Partner of RILEM, and in cooperation with the Regional RILEM Group Lat-RILEM, a short course on Self-Compacting Concrete will be organized in conjunction with the 54th IBRACON Congress, Maceio, Brazil, 8 to 11 October 2012. During this congress, several parallel symposia will be organized, among which a symposium on self-compacting

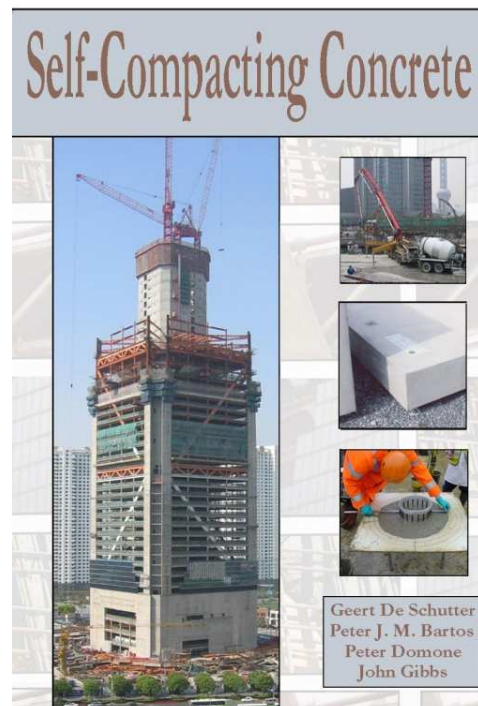
concrete (9-10 October). Overlap between SCC course and SCC symposium is avoided, so that participants interested in SCC can attend both events. The course is coordinated by G. De Schutter, RILEM Director of Development, and Tulio Bittencourt, IBRACON President.

Text book

The contents of the short course on SCC is based on the text book “Self-Compacting Concrete”, authored by G. De Schutter, P. Bartos, P. Domone, and J. Gibbs, and published by Whittles Publishing in 2008. This text book has been scientifically endorsed by RILEM.

Target audience

The target audience of this short course on SCC is consisting of doctoral students. However, the course will also deal with practical aspects like mix design, construction process, specifications and practical applications, giving valuable information and background knowledge to practicing engineers and architects.



Lecturers

Prof. Geert DE SCHUTTER	Full professor at Ghent University RILEM Director of Development
Dr. Pieter DESNERCK	Post-doctoral researcher at Ghent University RILEM member
Prof. Bernardo F. TITIKIAN	Coordenador do Curso de Engenharia Civil, UNISINOS/RS Presidente Alconpat Brasil

Time schedule

The SCC course will be organized on Monday 8 October and Friday 11 October 2012, in conjunction with the 54th IBRACON Congress, in Maceio, Brazil. On Tuesday 9 and Wednesday 10 October, a two-day symposium on SCC will be organized, as part of the 54th IBRACON Congress.

Date	Contents	Lecturer
Monday 08/10 08:30-09:00	Session 1: General introduction to SCC and constituent materials The need for self-compaction Definition of self-compacting concrete A brief history of self-compacting concrete Benefits of using SCC Specific issues related to coarse aggregates, cements and additions, admixtures, fibres	G. De Schutter
Monday 08/10 09:00-10:00	Session 2: Properties of fresh self-compacting concrete mixes Introduction to rheology Key characteristics of fresh SCC Tests for key properties of fresh SCC	P. Desnerck
Monday 08/10 10:30-11:30	Session 3: Mix design Concrete requirements General considerations for mix proportioning Mix design procedures	B. F. Tutikian
Monday 08/10 11:30-12:45	Session 4: Construction process Batching and mixing, Transport, Placing, Formwork, Curing, Finishing	G. De Schutter
Monday 08/10 14:00-15:00	Session 5: Hydration and microstructure Hydration of self-compacting concrete Microstructure of self-compacting concrete	G. De Schutter
Monday 08/10 15:00-16:00	Session 6: Durability Transport properties Deterioration processes (Carbonation, Chloride penetration, Freeze-thaw, Alkali–aggregate	G. De Schutter

	reactions, External chemical attack, Acid attack, Sulfate attack, Fire resistance)	
Friday 11/10 08:30-10:00	Session 7: Engineering properties Compressive strength and modulus of elasticity Tensile and shear strength Creep Shrinkage Bond with reinforcement	P. Desnerck
Friday 11/10 10:30-11:30	Session 8: Standards, specifications and practical applications Specification for self-compacting concrete International advisory documents for self-compacting concrete Advisory documents available from concrete and admixture suppliers Standards for test methods Practical applications (Industrial structures, Public buildings and housing, Bridges, ...)	B. F. Tutikian

Venue

The course will be organized at the same venue as the 54th IBRACON Congress, Maceio, Brazil. Practical information on the 54th IBRACON Congress can be found through the website www.ibracon.org.br.

Registration

IBRACON will provide a registration tool for the course through the website of the 54th IBRACON Congress (through www.ibracon.org.br). Registration fees are as follows:

Professionals Members	R\$ 400,00
Professionals non Members	R\$ 500,00
Students Members	R\$ 200,00
Students non Members	R\$ 300,00

The membership status will apply to both IBRACON or RILEM.

A maximum of 90 registrations are available for the course.