

CONFERENCE WORKSHOP FIB MODEL CODE 2020 THE WORLD DURABILITY CODE: DESIGN SESSION

Concrete 2017 and ICDC 2017 are pleased to announce a special workshop that will be held in Adelaide prior to the commencement of the conference. This special session will review the development of the next *fib* Model Code (MC2020) and the durability requirements within the code. In particular the workshop will consider the following question – “How do we move forward with design of new concrete structures and the through-life care of existing ones?”

This workshop will include several international durability experts, as well as providing updates on the critical work being undertaken by the CIA Durability Committee.

Registration for this workshop is available to all industry members. Concrete 2017 and ICDC 2017 delegates can add this workshop to their existing conference registration.

DETAILS

Sunday 22 October 2017
Room H-6 12
Hawke Building,
UniSA, City West Campus
North Terrace, Adelaide
1.00pm to 5.30pm

PRICING

	Attending Concrete 2017	Not attending Concrete 2017
CIA Members	\$165	\$195
Non-CIA Members	\$210	\$240
Students	\$50	\$75

PRESENTERS

Dr Stuart Matthews - BRE- UK, Chair *fib* Commission 3
Convenor TG 10.1 on MC2020 development

Professor Phil Bamforth - Visiting Professor, University of
Sheffield on Asset Management and Service Life Prediction,
UK

Professor Carmen Andrade - Centre for Research in
Security & Durability of Structures & Materials, Spain

Professor Doug Hooton - Professor and NSERC/CAC
Chair in Concrete Durability & Sustainability, University of
Toronto, Canada, and ACI Director and ACI Committee 201
Member

Frank Papworth – BCRC, Chair *fib* Commission 8,
Joint Chair *fib* TG10.1's Durability Action Group, and CIA
Durability Technical Committee

Rodney Paul - GHD, Chair CIA Durability Technical
Committee, and Chair, ICDC 2017

Dr Daksh Baweja - BG&E, Associate Professor of Civil
Engineering, University of Technology, Sydney, and CIA
Durability Technical Committee Member

Emeritus Professor Ian Gilbert - Deputy Director of
UNSW Centre for Infrastructure and Safety Research, and
CIA Durability Technical Committee Member

TO REGISTER

www.concrete2017.com.au/workshops

SUPPORTED BY

AGENDA

13:00 Registration

13:15 Introduction

13:25 Developing the Next World Durability Code – fib's Model Code 2020 (Dr Stuart Matthews)

MC2020 will add provisions for the assessment of existing structures to the already extensive provisions for durability design of new structures. The changes include modelling of the initiation and propagation phases, as well as structural aspects. MC2020 also addresses through-life care and management of existing structures

14:25 Durability Design Overview (Frank Papworth)

CIA commenced a process to develop recommended practice report for various areas of concrete durability design. This work has proceeded at the same time as life cycle design initiatives in Commission 8. Achievements of the last 10 years and aspirations for the next few years of CIA durability committee and the fib Commission for Service Life Design will be reviewed

14:40 Durability Planning (Rodney Paull)

CIA Z7/01 provides a system to formalise the process of achieving durability in design, construction and operational maintenance; first international construction industry guideline on this topic. Guideline documents all focus on technical assessment and not the process to ensure the durability assessment is done. This is the missing link that is described from asset owner design brief

14:55 Exposure Classes (Dr Daksh Baweja)

CIA's Z7/02 (will be issued for CIA Member comment mid-2017) embraces the exposure classes used throughout Europe and extends them to include a wider range of deterioration mechanisms. In reviewing the proposed changes a detailed assessment of Australian, US and European classes was undertaken. This lecture will show the logic behind the change in designations and class extensions

15:10 Discussion and Q&A

15:30 Afternoon Tea

15:45 Modelling Using Reliability / Probabilistic Approaches (Professor Phil Bamforth)

MC2010 lists the primary durability design methods as avoidance, deemed to satisfy, full probabilistic modelling and partial factor approach. This lecture will discuss the different approaches and where and when they would be used

16:05 Current Deterioration Models (Professor Carmen Andrade)

fib's TG8.3 have just completed an extensive review of the models included in Bulletin 34 Model Code for Service Life design. The presentation will review this but focus on where potential developments for use on existing structures to define residual life including the propagation phase

16:25 Concrete Cracking & Crack Control (Emeritus Professor Ian Gilbert)

CIA's Z7/06 is in the hands of the publishers after 5 years in the making. It is a broad document covering all aspects of cracking. The talk will focus on design and construction to minimise early age cracking issues, significance of crack widths, criteria for crack width specification and on site assessment of cracks.

16:45 Testing (Professor Doug Hooton)

There is little point to using sophisticated durability modelling if we cannot test the concrete performance to see that it meets the modelling criteria. This extends to testing mixes and other materials before use, and quality assurance during use. With the extension of MC2020 it will also include durability tests of existing structures

17:05 Discussion and Q&A

17:30 Close

