



**CPD-accredited Workshop, 22 November 2018, 08:00 – 17:00**

## **Non-Destructive Testing of Concrete Structures**

University of Cape Town, Dept. of Civil Engineering

### **Venue**

University of Cape Town  
Department of Civil Engineering  
Upper Campus, Rondebosch  
New Engineering Building

### **Contact**

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### **Presenters**

Professor Alexander Taffe, HTW Berlin, Germany

Dr. Sasha Feistkorn, SVTI, Switzerland

Professor Christoph Dauberschmidt, Munich University of Applied Sciences, Germany

### **Background, Content, Purpose and Structure of the Workshop**

In recent years, concrete durability issues have gained importance throughout the world. Reinforced concrete deterioration is commonly related to the adequacy of the protection to steel offered by the concrete cover layer, which is subjected to the action of aggressive agents from the surrounding environment. A number of test methods for the quality assessment of hardened concrete cover have been developed world-wide. In future, these methods will increasingly be used for design and quality assurance of concrete and concrete structures. The workshop deals with non-destructive testing methods (NDT) in civil engineering for quality control and condition assessment. Condition assessment contributes to the choice of appropriate methods for concrete repair projects. Quality control helps to assure a high quality standard for concrete members or concrete repair. NDT methods for new constructions as well as methods to assess existing structures are discussed. State-of-the art methods are presented as well as methods ready for use in the near future.

The purpose of the workshop is to provide participants with a basic understanding on methods, their principles and techniques for non-destructive testing and condition assessment of concrete structures. Both theoretical and practical issues are considered.




The workshop consists of a series of lectures and practical demonstrations in the laboratory of the University of Cape Town. In the practical demonstrations, various non-destructive test methods are demonstrated, indicating their correct application and interpretation.

### Participant Target Groups

- Structural engineers and contractors involved in structural assessment and repair / rehabilitation of concrete structures
- Students and academics

### Programme and Timetable

07:30 - 08:00	Registration
08:00 - 09:15	Introduction to non-destructive testing philosophies and methods
09:15 - 10:15	Compressive strength assessment using the Schmidt Hammer
10:15 - 10:30	Teak break
10:30 - 11:30	Rebar detection and concrete cover
11:30 - 12:30	Detection of corrosion using Potential Mapping
12:30 - 13:30	Lunch break
13:30 - 14:30	Advanced NDT-CE using Ultrasonic and Radar
14:30 - 17:00	Laboratory demonstrations

	<p>Professor Christoph Dauberschmidt studied civil engineering at the Technical University Munich and obtained his PhD at ibac, Institute of Building Materials Research, Aachen University of Technology. He was consultant and team leader in the engineering office of Prof. Schiessl, IB Schiessl Gehlen Sodeikat. Since 2009 he has been Professor at Munich University of applied Sciences and since 2010 he has been shareholder in the engineering company Prof. Dauberschmidt &amp; Vestner. He is active in research on repair of RC structures, non-destructive testing and concrete technology.</p>
	<p>Dr. Sascha Feistkorn studied civil engineering at the Technical University of Berlin. He did research work at BAM Berlin, including validation of the rebound hammer measuring the Q-value. He obtained a PhD in the field of reliability of NDT-CE using Ground Penetrating Radar (GPR). Since 2012 he has been employed at the NDE Laboratory of the Nuclear Inspectorate of the Swiss Association for Technical Inspections (SVTI).</p>
	<p>Professor Alexander Taffe studied civil engineering at Aachen University of Technology. Later he worked in the field of condition assessment and concrete repair at the Berlin office of Sasse&amp;Fiebrich. Research work at BAM and PhD in the field of validation of NDT-CE methods. Since 2013 he has been Professor in building analysis, NDT-CE and concrete repair at HTW Berlin – University of Applied Sciences. He is chairman of the committee of NDT-CE of the DGZfP (German Society of Non-Destructive Testing).</p>

## Fees\* and registration

NDT workshop only**		Combined package **	
		FRP & NDT workshop	
ICRRR delegates	R 2600 / € 260		R 4000 / € 400
Students	R 1600 / € 160		R 2400 / € 240
Others	R 3200 / € 320		R 4000 / € 400

\* Fees in ZAR refer to local delegates; fees in Euro refer to international delegates

\*\* Please indicate the appropriate registration category in the above table

Title: ..... First name: ..... Surname: .....

Institution: .....

Full postal address:.....

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Fax:.....E-mail:.....

Registration covers attendance of all sessions of the workshop, teas and lunch, and one set of printed notes.

Payment may be made in one of the following ways (please tick to indicate method used):

**Bank transfer**, to be made to:

*Account holder:* ICRRR

*Bank:* Standard Bank of South Africa, Rondebosch

*Branch Code:* 02500911

*Account No.:* 072969334

*SWIFT Address:* SBZAZAJJ

**Credit card:**

*Cardholders Name:* .....

*Card Type (Visa, Master):* .....

*Card Number:* ..... *Expiry Date:* .....

*Validation Number (last 3 digits of number on reverse side of card):* .....

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