

The Institution of Structural Engineers, Australia Regional Group (New South Wales) and the Australian Engineered Fasteners and Anchors Council (AEFAC)

Presents

“Fastening Technique in Concrete: Past – Present – Future”

at

Epping Club

45-47 Rawson Street, Epping

on

Tuesday 13th March, 2018 at 5:30 pm for 6:00 pm

Abstract

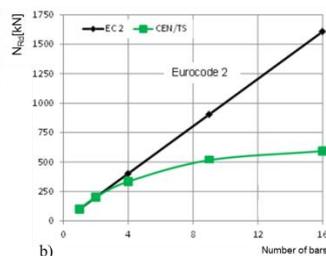
The development of fastenings, guidelines for testing of anchors and of models for the design of fastenings since 1980 will be reviewed. In particular, the CC-Method, which is incorporated in SA TS 101: 2015, will be explained in detail. Because correct anchor installation is very important, problems with installation of anchors on site will be discussed. A major focus of the talk will be on new research:

Harmonization of design provisions for connections in reinforced concrete and fastening technique

The calculated design capacity of fastenings may be very different if the design is performed according to provisions in standards for reinforced concrete or fastening technique (Fig.1). Harmonization is urgently needed.



a)



b)

Fig. 1 Connection with straight deformed reinforcing bars subjected to centric tension load. Comparison of design resistances of connection according to Eurocode 2 and CEN/TS 1992-4

Fastenings with supplementary reinforcement under tension and shear loads

Current models in standards for the design of fastenings with supplementary reinforcement are very conservative. Based on the results of extensive testing a new analytical model will be presented

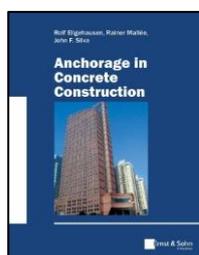
Presented by

Prof. Dr.-Ing. Rolf Eligehausen

University of Stuttgart and Engineering Office IEA –Eligehausen – Asmus – Hofmann

Rolf Eligehausen was Professor and Head of the Department of Fastening Technology at the Institute of Construction Materials, University of Stuttgart, Germany until 2009. Rolf has more than 30 years of experience in research and testing of anchor technology.

Since 1986 he chairs the fib Task Group “Fastenings to Concrete and Masonry” and since 2002 the CEN Working Group responsible for drafting EN1992-4 “Design of Fastenings in Concrete”. He is member of ACI Committees 355 “Anchorage to Concrete”; 349 “Concrete Nuclear Structures”; and 408 “Bond and Development of Reinforcement” and of many other national and international technical committees. Rolf has authored or coauthored more than 250 papers on reinforced concrete and fastening technique and is co-author of the textbook “Anchorage in Concrete Construction”



Please register by sending a short e-mail to istructENSW@gmail.com by 6th March 2018.

This is a free event
For ISTRUCTE members please include your member number