



CORSO PER CREDITI LIBERI

Insegnamento di **Tecnica delle Costruzioni**, 5° anno Architettura

Alghero - 22/24 ottobre 2009, ore 9.00/18.30

22 ottobre - Asilo Sella, lungomare Garibaldi - aula AllPc

23 ottobre - Pou Salit, piazza Duomo - aula 3 piano terra

24 ottobre - Asilo Sella, lungomare Garibaldi - aula magna piano terra

A SHORT COURSE IN

TIMBER STRUCTURES//COSTRUZIONI IN LEGNO

Corso opzionale per gli studenti del 5° anno della Facoltà di Architettura di Alghero.

Aperto anche ad architetti, ingegneri professionisti e a studenti del 4° o 5° anno di corso di tutte le Facoltà di Ingegneria e Architettura.

2 CFU per il superamento di un esame scritto finale. Lingue del corso: inglese e italiano.

Max 40 partecipanti, iscrizione obbligatoria su www.architettura.uniss.it/timbercourse

Hank Bier, Massimo Fragiaco

This course is for undergraduate students of the Faculty of Architecture and civil engineering. The programme will introduce students to a range of wood based materials that can be used for design including timber, panel materials, and products like glulam, and laminated veneer lumber. The first day will present the material properties and how these properties depend on how the wood materials are fabricated and on the correct specification and choice of adhesives for structural wood products. From a foundation of understanding the materials, the focus will move to design process. Students will become familiar with procedures for member design, fire resistant construction, design and specification for durability, and the design of LVL industrial frame buildings with an emphasis on detailing and construction aspects. Connections between timber and other elements are critically important. Various connection techniques and design details will be discussed. Examples will be presented from a wide range of buildings from around the world. The course will be completed with an introduction to the latest research developments in multi storey timber construction being carried out in New Zealand in collaboration with industry.

Prof. Hank Bier (BE Hons (Civil), (Cantaur), MSc, (Timber structures) (London), DIC, FIPENZ) from Rotorua, New Zealand, has experience in structural design, wood products development and research having worked for the New Zealand Forest Research Institute (now Scion) and as Manager of Research and Development for NZ's largest wood products manufacturing company, during which time he prepared design guides for plywood and LVL for use in timber construction, as well as providing technical support for the design and installation of a 65 million Euro laminated veneer lumber facility. Prof Bier was at the New Zealand Waiariki National Centre of Excellence for the Forest and Wood Industries before coming to Alghero, and is the author of over 40 technical papers and conference presentations. He was made a Fellow of the Institution of Professional Engineers New Zealand in recognition of his support for the development of Engineered Wood and education in Timber Engineering.

Prof. Massimo Fragiaco teaches Structural Design at the Faculty of Architecture of Alghero, Italy, within the University of Sassari. Past work experiences include three years at the University of Canterbury, in New Zealand, as Senior Lecturer, and six years at the University of Trieste, Italy, as Research Fellow. He also spent a 6-month period at the Building Research Establishment, U.K., and 1.5 months at Colorado State University, USA. He holds a PhD in Design and Preservation of structures and a degree in Structural Engineering at the University of Trieste, Italy. He is author of about 140 papers, 30 of which published on peer reviewed International Journals. His main areas of expertise include Timber Engineering, Timber-concrete composite structures, Steel-concrete composite structures, FE modeling, Earthquake engineering, and Seismic performance of steel and timber structures. He has been Principal Investigator in several national and international projects, for an overall amount of several hundreds of thousand Euros. Reviewers for the most important scientific journals, he has been invited to give seminars on Timber Engineering by a number of European, American and Australasia institutions.

