

# **SVEUČILIŠTE U SPLITU**

## **GRAĐEVINSKO-ARHITEKTONSKI FAKULTET**

U okviru programa znanstvenih seminara  
koje u akademskoj godini 2009/10. organizira Fakultet,  
**u četvrtak, 20. svibnja 2010. u 18 sati**  
u amfiteatru, u prizemlju zgrade Fakulteta,  
Matice hrvatske 15, Split

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održat će predavanje

### **On the new European standard for earthquake resistance of structures Eurocode 8**

#### ***Abstract***

Eurocode 8 (EC8) is a comprehensive new standard which contributes to high earthquake resistance of structures and to their satisfactory behaviour during earthquakes. Of course, due to the requirements of EC8 the costs of construction, on average, increase. The new standard also requires a better understanding and more work for designers, at least in the initial stage, when all computer tools are not yet available. In the presentation, first some basic principles of earthquake resistant design and their implementation in EC8 will be briefly explained. The examples observed in different earthquakes, including the recent ones in Chile, Haiti and L'Aquila, will be used for illustration. Then, the influence of EC8 on the seismic capacity, on the probability of failure, and on the cost of the structure will be presented by an example of a reinforced concrete frame building. Two variants of the building structure (one designed for gravity loads only and the other one designed according to EC8) will be discussed.

#### ***Curriculum Vitae***

Peter Fajfar is Professor of Structural and Earthquake Engineering at the Faculty of Civil and Geodetic Engineering, University of Ljubljana, Slovenia. He is a member of the Slovenian Academy of Sciences and Arts and of the Slovenian Academy of Engineering. He obtained Ph.D in 1974 from University of Ljubljana. P.Fajfar was visiting researcher at the universities in Bochum, Germany, Berkeley, USA, and Tokushima, Japan, and Visiting Professor at Technion, Haifa, Israel, McMaster University, Hamilton, Canada, Stanford University, USA, University of Bristol, UK, and University of Canterbury, Christchurch, New Zealand. He is an editor of Earthquake Engineering and Structural Dynamics (Wiley) and a member of editorial boards of six international journals. P.Fajfar is also a member of the Executive Committees of the European Association of Earthquake Engineering and of the International Association of Earthquake Engineering. He is the representative of Slovenia in the Technical committee TC250/SC8 responsible for the European standard for earthquake resistance of structures Eurocode 8 and has contributed to its development.