

## SHORT COURSE ANNOUNCEMENT

### *TUNNELS THROUGH FAULT ROCKS AND TECTONIC MELANGES: A SHORT COURSE FOR ENGINEERING GEOLOGISTS AND GEOTECHNICAL ENGINEERS*

**Friday afternoon May 31 (field trip) and Saturday, June 1, 2002**

Co-sponsored by:

- Association of Engineering Geologists, San Francisco Section and
- ASCE San Francisco Section Geotechnical Group



Photo: Ed Medley

Relatively little is known about engineering geological characterization and geomechanical properties of complex brittle fault rocks and tectonic melanges, although these troublesome block-in-matrix rocks are common throughout the world. This Short Course will introduce engineering geologists and geotechnical engineers to techniques useful for the characterization, design and construction of tunnels in fault rocks and melanges. The course is topical given that several tunnels and excavations are currently in design, or are proposed for construction, in fault rocks and melanges of the San Francisco Bay Area.

The Course will also provide background useful to geo-professionals interested in characterizing melanges, fault rocks and similar block-in-matrix rocks for excavations and other earthworks.

The Short Course will be presented by Dr. Gunter Riedmueller and Dr. Wulf Schubert, who are internationally recognized consultants and researchers in the engineering geological characterization of geological complexity and tunnel design/construction in fault rocks and melanges.

A Keynote Address and Concluding Remarks will be presented by Dr. Richard E. Goodman, Professor Emeritus in Geological Engineering, University of California, Berkeley.

## **COURSE OUTLINE**

The 1-1/2 day Short Course will be composed of:

**Friday, May 31, 2002 (afternoon):** A half-day field trip to review Bay Area fault rocks and melanges. The field trip is limited to a maximum of 25 registrants for the Saturday lectures.

**Saturday, June 1, 2002 (all day):**

- Keynote Address by Dr. Richard E. Goodman
- Characterization and classification of fault rocks and melanges
- Investigation of tectonic faults and fault rocks with examples from recent tunnel projects in the Austrian Alps and abroad. Engineering field practice, from outcrop studies and drill core logging, through mapping of local and regional geology
- Anticipating and solving problems with tunneling through fault zones
- Short-term prediction ahead of the face, including determination of support and excavation sequence
- State-of-the-art methods in engineering geological face mapping (3D-evaluation) and displacement monitoring
- Questions and Answers
- Concluding Remarks by Dr. Richard E. Goodman

## INSTRUCTORS

**Dr. Gunter Riedmuller** is the senior Professor at the Institute of Engineering Geology and Applied Mineralogy at the Technical University of Graz, Austria. He is also Principal Engineering Geologist of 3G (Gruppe Geotechnik Graz). **Dr. Wulf Schubert** is the senior Professor of the Institute for Rock Mechanics and Tunnelling at the Technical University of Graz, as well as being Principal Tunnel Engineer at 3G. Dr. Riedmuller and Dr. Schubert have an extensive publication record in English, which summarizes their innovative research and considerable international experience in the characterization of fault rocks and melanges, and the design of construction works for tunnels, highways, slope stabilizations and dams.

## COURSE VENUE

The Saturday lectures will be held at the Caltrans Auditorium at 111 Grand Avenue in Oakland, California.

## FEES

The fees for the course are \$175 for the Saturday lectures and an additional \$40 for the Friday afternoon field trip (open only to registrants for the Saturday lectures). The fees for students are \$25 for the lectures and an additional \$10 for the field trip. The fees for Caltrans employees are \$130 for the lectures and \$30 for the field trip.

A field trip guide will be provided to Field Trip registrants. A comprehensive collection of the instructors' papers and instructional materials, as well as related useful literature on the geological engineering and geotechnical engineering aspects of melanges and fault rocks, will be provided in CD-ROM format. Refreshments and lunch are included in the Saturday course fees.

## CONTACT DETAILS

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