

Rock Mechanics

Expertise	Rock Mechanics, Geohydrology
Education	Ph.D. (Engineering Geology), 1995 Royal Institute of Technology, Stockholm, Sweden Tech. Lic. (Rock Mechanics), 1988 M.Sc. (Mining Engineering), 1985 Luleå University of Technology, Sweden
Professional Affiliations	Board Member, Swedish National Group, International Society for Rock Mechanics (ISRM)

Professional Experience

1999 - Present	<i>Itasca Geomekanik AB, Stockholm, Sweden, Managing Director</i>
1995 - 1998	<i>Itasca Geomekanik AB, Stockholm, Sweden, Senior Consultant</i>
1992 - 1995	<i>Royal Institute of Technology, Division of Engineering Geology Stockholm, Sweden, Research Assistant</i>
1990 - 1991	<i>Vattenfall HydroPower AB, Ludvika, Sweden, Consulting Engineer</i>
1985 - 1988	<i>Luleå University of Technology, Division of Rock Mechanics, Sweden Research Assistant</i>
1984	<i>VIAK AB, Falun, Sweden, Consulting Engineer</i>

Project Experience

Laboratory and Field Research: Development of experimental techniques for characterization of hydromechanical properties of natural rock fractures, especially casting and image-analysis techniques for measurements of fracture apertures. Geostatistical analyses of fracture data to enable description of the spatial distribution of apertures.

Geotechnical Consulting Related to Civil Engineering: Numerical modeling of a refrigerated LRC storage. Stability analyses of concrete and embankment dams. Calculation of seepage below dams. Investigation of leakage problems through embankment dams and uplift effects below concrete dams. Investigations related to sealing and grouting of dams and dam foundations in rock.

Geotechnical Consulting Related to Waste Isolation: Dr. Eva Hakami has worked in several different projects for the Swedish Nuclear Waste Management Company (SKB) over her career. Recently, she coordinated the rock-mechanics part (intact rock, fractures, rock-mass and in-situ stresses) of the site description models for one of the sites investigated by SKB. The investigations, and corresponding modeling, were carried out in stages from 2002 to 2009. The project involved planning for data collection, data analysis, numerical modeling and extensive integration with other disciplines (geology, geohydrology, transport and

geochemistry). Other projects have concerned different thermomechanical effects around the future nuclear-waste repository. Further, Dr. Hakami has carried out several SKB project with the objective of developing experimental techniques for characterization of hydromechanical properties of natural rock fractures. These studies include casting and image-analysis techniques for the measurement of fracture apertures, and geostatistical data analyses. Currently, she is responsible for a field experiment at the Äspö Hard Rock Laboratory concerning thermally induced spalling around boreholes. This project is part of the effort to decrease uncertainty in in-situ stress estimations and to increase the understanding of deposition-hole stability issues.