

**MARK S. DIEDERICHS, PH.D., P.ENG**

**ROCK ENGINEERING SPECIALIST**

**INNOVATIVE GEOMECHANICS**

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Born: June 15, 1964 (in Edmonton, Alberta, Canada) Nationality: Canadian

**EDUCATION**

- Ph.D. Civil Engineering, University of Waterloo, 2000 (Supervisors: Dr. P.K. Kaiser & Dr. M. Dusseault)  
M.A.Sc. Civil Engineering, University of Toronto, 1990 (Supervisor: Dr. E. Hoek)  
B.A.Sc. Geological Engineering, University of Toronto, 1987

**ASSOCIATIONS**

American Rock Mechanics Association  
Canadian Geotechnical Society: Chair Rock Mechanics Division  
Canadian Institute of Mining and Metallurgy  
Canadian Rock Mechanics Association  
International Society for Rock Mechanics  
International Association of Engineering Geology and the Environment  
Professional Engineers of Ontario  
Tunnelling Association of Canada

**POSITIONS HELD**

- 2000-2001 *Innovative Geomechanics, Waterloo, Ontario*  
Research, Development and Technical Services in Mining and Civil Construction  
1993 to 1999 *Geomechanics Research Centre, Sudbury*  
Geomechanics Engineer / Underground Support Specialist  
1993 to 1994 *Commonwealth Scientific and Industrial Research Organization, Australia*  
Assessment of cablebolt design and implementation for support of underground excavations.  
1990 to 1991 *Mining Engineering Dept., Queen's University, Kingston*  
Field Micro-seismic / Rock Mechanics Specialist  
1989 to 1990 *Rock Engineering Group, University of Toronto*  
Geomechanics Software Design and Development, Ground Control Research  
1990 *International Development Research Corporation, I.D.R.C. (Canada)*  
Research Engineer and Underground Safety and Stability Auditor - Zimbabwe

**SELECTED PUBLICATIONS AND CONTRIBUTIONS (from 40+ published)**

**Monographs**

Hutchinson, D.J. and Diederichs, M.S. 1996. *Cablebolting in Underground Mines*. Bitech Publishers Ltd., Vancouver. 416p.

**Selected Refereed Journal Publications**

- Diederichs, M.S., Hutchinson, D.J., and Kaiser, P.K. 1999. Cablebolt layouts using the Modified Stability Graph. *Canadian Institute of Mining Bulletin*, 92 (1035), 81-85.  
Diederichs, M.S. and Kaiser, P.K. 1999. Tensile strength and abutment relaxation as failure control mechanisms in underground excavations. *Int. J. Rock. Mech. & Min. Sci.*, 36, 69-96.  
Diederichs, M.S. and Kaiser, P.K. 1999. Stability of large excavations in laminated hard rockmasses: The Voussoir analogue revisited. *Int. J. Rock. Mech. & Min. Sci.*, 36, 97-117.  
Diederichs, M.S., and Kaiser, P.K. 1996. Rock instability and risk analysis in open stope mine design. *Canadian Geotechnical Journal*, 33 (3), 431-439.  
McCreath, D.R., and Diederichs, M.S. 1994. Assessment of near-field rockmass fracturing around a potential nuclear fuel waste repository. *Int. J. Rock. Mech. & Min. Sci. and Geomech. Abst.*, 31 (5), 457-470.

**Selected Refereed Conference Publications**

Diederichs, M., Espley, S., Langille, C. and Hutchinson D. J. 2000. A semi-empirical hazard assessment approach to wedge instability in underground mine openings. *GeoEng2000, Melbourne (November)*.