

Pedro M. Varona

Mining Engineering

<i>Expertise</i>	Mining Engineering, Rock Mechanics, Numerical Modeling
<i>Education</i>	Ingeniero Superior de Minas (Geology and Geophysics), 1986 Escuela Tecnica Superior de Ingenieros de Minas de Madrid, Spain
<i>Professional Affiliations</i>	Member, AETOS (Spanish Association of Tunnels & Underground Works)

Professional Experience

<i>1996 - Present</i>	<i>Itasca Consultores S.L., Asturias, Spain, Manager</i>
<i>1995 - 1996</i>	<i>Itasca Associates, Asturias, Spain, Independent Consultant</i>
<i>1991 - 1995</i>	<i>Itasca Consulting Group, Inc., Minneapolis, Minnesota, Project Engineer</i>
<i>1985 - 1991</i>	<i>Geocontrol S.A., Madrid, Spain, Engineer</i>

Project Experience

Mining Engineering: Open-pit stability analysis for Syncrude (Canada), Chuquicamata (Chile) and Hulleras de Sabero (Spain); Numerical analysis of underground mining operations in Canada, Chile, Republic of South Africa, Spain, United States; Study of mining induced subsidence problems: damage to buildings and to other underground works and several coal mines in Spain.

Civil Engineering: Projects involving tunnels, large caverns and foundation problems in France, Indonesia, Korea, Spain, Sweden and United States; Installation of a computerized rock mechanics laboratory with real-time information processing.

Numerical Codes: Training seminars for FLAC and FLAC3D in Canada, Chile, Finland, Spain, Sweden and the United States.