

Geotechnical Engineering

Expertise Tunneling, Mining Engineering, Ground Support, Numerical Modeling

Education Ingeniero Superior de Minas (Geology and Geophysics), 1986
Escuela Tecnica Superior de Ingenieros de Minas de Madrid, Spain

Professional Affiliations Member, Colegio Oficial de Ingenieros de Minas de Madrid

Professional Experience

1999 - Present *Itasca Consultores S.L., Asturias, Spain, Project Engineer*

1991 – 1999 *Geocontrol S.A., Madrid, Spain, Project Engineer*

1989 - 1991 *Andersen Consulting, S.R.C., Madrid, Spain, Assistant Consultant*

Project Experience

Geotechnical Engineering Applied to Surface Mining: Consulting and numerical modeling assessments of the stability of pits, tailing dams, heap leaching piles, with redaction of Procedures Handbooks for the management of tailing dams and heap leaching.

Numerical Modeling Applied to Tunneling: Consulting and numerical modeling assessments for design of tunnel supports under different geotechnical conditions: shallow tunnels (in soil) and depth tunnels (in rock); ground materials affected by creeping or swelling phenomena; stability of the face in fault or shear zones; assessments of induced subsidence, and stability of portals.

Numerical Modeling Applied to Civil Engineering: Consulting and numerical modeling assessments for design of retaining walls, anchoring and foundations; slope stability and design of reinforcement measures, and assessments of settlement induced by consolidation of weak soil.

Rock Mechanics and Numerical Modeling Applied to Underground Mining: Consulting and numerical modeling of the stress-strain behavior of the rock mass in longwall exploitations. Assessments of subsidence due to longwall exploitations. Researching projects on rock mass characterization, numerical modeling, monitoring, stress measurements, and monitoring of the rock mass behavior under longwall stress conditions for the European Community for Steel and Coal (E.C.S.C.); Coal Researching Programme.