



## **NOEMI ALEJANDRA SCHCLAR LEITAO**

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### **Professional summary**

- Doctor of Philosophy (PhD) - Wessex Institute of Technology, Portsmouth University, U.K., 1993.
- MsC in Structural Analysis - Facultad de Ciencias Exactas e Ingeniería, U.N.R., Rosario, Argentina, 1988.
- Civil Engineering - Facultad de Ingeniería, U.N.R., Rosario, Argentina, 1982.
- Researcher - Laboratorio Nacional de Engenharia Civil (LNEC), Portugal, 1994-present
- Lecturer in Structural Analysis - Facultad de Ingeniería, U.N.R., Rosario, Argentina, 1985-1990.
- Researcher - Facultad de Ingeniería, U.N.R., Rosario, Argentina, 1982-1990.

### **Main areas of interest and activity**

- Numerical modelling of thermal stresses in concrete dams.
- Thermo-chemo-mechanical analysis of early age concrete.
- Analysis and interpretation of monitoring results of concrete dams by numerical modelling.

### **Selected publications**

- Schclar, N.A. (1990) "Franja Finita de Directriz Cilíndrica Circular". Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería, Vol. 6, n.º 1, pp 37-51, Universitat Politècnica de Catalunya, Espanha.
- Schclar, N.A.; Partridge, P.W. (1993) "3D Anisotropic Elasticity with BEM using the Isotropic Fundamental Solution". Engineering Analysis with Boundary Elements, Vol. 11, n.º 2, pp 137-144, Reino Unido.
- Sousa, L.R.; Leitão, N.S.; Monteiro, G. (2000) "Observação do Comportamento das Estruturas de Reforço de Potência do Empreendimento Hidroeléctrico de Miranda". Geotecnia, n.º 88, pp 47-69, Portugal.
- Castro, A.T.; Leitão, N.S.; Sousa, L.R.; Desheng, D.; Nguyen-Minh, D. (2002) "The use of inverse methodologies in geotechnical problems". ISRM News Journal, Vol. 7, nº 2, pp 24-32.
- Lamas, L.; Leitão, N.S.; Esteves, C.; Plasencia, N (2014) "First infilling of the Venda Nova II unlined high-pressure tunnel: observed behavior and numerical modelling". J Rock Mechanics and Rock Engineering, Vol. 47 (3) pp. 885-904.
- Mata, J.; Leitão, N.S.; Castro, A.T.; Costa, J.S. (2014) "Construction of decision rules for early detection of a developing concrete arch dam failure scenario. A discriminant approach". Computers & Structures, 142, pp 45-53.

#### **Thesis:**

- Schclar, N.A. (1993) Application of the Boundary Element Method to the Structural Analysis of Three Dimensional Anisotropic Material. PhD Thesis, Wessex Institute of Technology, U.K.

#### **Book:**

- Schclar, N.A. (1994). Anisotropic Analysis using Boundary Elements, Topics in Engineering, Vol. 20, Computational Mechanics Publications, U.K.