Nuno Monteiro Azevedo

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Professional summary

ÅResearch engineer at the Concrete Dams Department of the Portuguese National Laboratory for Civil Engineering (LNEC) since August 2006

ÅAssistant professor at the Faculty for Sciences and Technology of the New University of Lisbon (FCT-UNL) (March 2004 to August 2006)

ÅResearch officer at the Heriot-Watt University in Scotland (March 1999 to September 2003)

Main areas of interest and activity

He has developed and applied both continuum and discontinuum models to represent damage at macro and at the grain scale. He has proposed novel techniques for applying explicit particle discontinuum models to fracture problems in quasi-brittle material (concrete, rock and asphalt pavement) at both laboratory scale and large scale.

He has been involved in the development and application of finite element numerical models to the static as well as dynamic analysis of several dam concrete structures.

Selected publications

Monteiro Azevedo, N., A rigid particle discrete element model for the fracture analysis of plain and reinforced concrete, PhD thesis, Heriot-Watt University, Scotland, 2003.

Monteiro Azevedo, N., Candeias, M. & Gouveia, F., A Rigid Particle Model for Rock Fracture Following the Voronoi Tessellation of the Grain Structure: Formulation and Validation, pp 535-557, Vol 48 (2), Rock mechanis & Rock Engineering, March 2015.

Monteiro Azevedo, N. & Lemos, V., A 3D generalized rigid particle contact model for rock fracture, pp 277-300, Vol. 30 (2), Engineering Computations: International Journal for Computer-Aided Engineering and Software, February, 2013.

Micaelo, R., Ribeiro, J., Azevedo, M., & Azevedo, N., Micromechanical Modelling of a simplified lab compaction procedure, pp 461-491, Vol. 12, no. 3/2011, Road Materials and Pavement Design, July-September 2011.