

NEWSLETTER

Centro de Recursos Naturais e Ambiente

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Paradigm Renews its Donation of Software Packages for Teaching and Research at Cerena



ADVANCED SCIENCE FOR EVERYONE

Paradigm (www.pdgm.com) has renewed its donation of 20 licenses each for its Echos seismic processing system and SeisEarth XV interpretation and visualization product suite. The licenses will be used in two teaching courses in the Master's Program in Petroleum Engineering, as well as for research purposes.

In the course Geophysical Digital Signal Processing, students will learn about multichannel seismic reflection data processing techniques, using Paradigm Echos to perform seismic processing on real 2D seismic reflection data. The course Applied Geophysics for Hydrocarbon Exploration focuses on the interpretation of seismic reflection data from real 2D/3D datasets in different geological environments. It includes a project in which students interpret a real dataset composed of 3D and 2D seismic reflection data and well logs using Paradigm SeisEarth XV.

The software will also be used in research projects performed by the CERENA Petroleum Group, which will study new techniques for seismic reflection and the integration of well log data into the geo-modeling workflow. The main focus will be on the development of new geostatistical tools for reservoir modeling and characterization. The research plan includes uncertainty assessment and integration during seismic reflection data processing, including the key steps of velocity modeling and imaging.

Paradigm solutions will be used as the standard workspace between researchers, to enhance interpersonal collaboration and improve modeling workflows.

WRI-15 – 15th Water-Rock Interaction International Symposium



The WRI-15 – 15th Water-Rock Interaction International Symposium was held in Évora in Portugal, a UNESCO World Heritage City, from 16 to 21 October 2016. Chaired by José Manuel Marques from CERENA / IST, under the auspices of the Water-Rock Interaction Working Group (WRI-WG) of the International Association of Geochemistry (IAGC).

The Symposium covered the most important top topics in the field of Water-rock Interaction, including 8 Keynotes and a Special Session dedicated to the late Mike Edmonds. 319 Delegates from 33 countries were registered for the Symposium. The mid-week field trips were led by senior Portuguese researchers and scientists and covered topics such as: hyperalkaline mineral waters ascribed to serpentinization (Cabeço de Vide); the Lousal Pyrite Mine, and the Hard Rock Aquifers of Évora. The Symposium culminated in a post field trip to the Azores Islands (São Miguel), with the attendance of 20 senior researchers and focusing on the main topics of thermal and mineral waters and high temperature geothermal energy.

UPCOMING EVENTS



8º Congresso Luso-Moçambicano de Engenharia



Aim and Thematic Areas

On the central theme "Challenges and Opportunities for Engineering in Cooperation for Development", this 8th Luso-Mozambican Congress of Engineering was jointly organized by the Faculty of Engineering of the University of Porto (FEUP), Faculty of Engineering of the University Eduardo Mondlane (FEUEM) and the Portuguese and Mozambican Engineers' Association. This congress is sponsored by the Secretariat of the Community of Portuguese Speaking Countries (CPLP).

The Congress will be held in the Grand Maputo VIP Hotel in the city of Maputo / Mozambique, from 4 to 8 September 2017. The aim is to bring together engineers, teachers and engineering technicians to exchange ideas and experiences. Amilcar Soares is a member of the Scientific Committee of this Congress.

AWARD OF BEST PAPER in ICWMEE 2016



Our colleagues A.S. Silva, M.L. Dinis and A.J.S.C. Pereira obtained the AWARD OF BEST PAPER in ICWMEE 2016: 18th International Conference on Waste Management and Environmental Engineering, July 11-12, 2016, Stockholm, Sweden. with the paper "Co-Disposal of Coal Ash with Mine Tailings in Surface Paste Disposal Practices: A Gold Mining Case Study"

Papers Published

[Rust morphology characterization of silicone-based marine antifouling paints after salt spray test on scribed specimens](#)

E. D. Kiosidou, A. Karantonis, D. I. Pantelis, E. R. Silva, J. C. M. Bordado (2016) Rust morphology characterization of silicone-based marine antifouling paints after salt spray test on scribed specimens *Journal of Coatings Technology and Research*, 1-13 ; doi:10.1007/s11998-016-9851-z

[Assessment of indoor radon levels in Portuguese thermal spas](#)

A.S. Silva, M.L. Dinis and A.J.S.C. Pereira (2016) Assessment of indoor radon levels in Portuguese thermal spas, *Radioprotection* 51 (4) 249-254 , DOI: <http://dx.doi.org/10.1051/radiopro/2016077>

[Study of the cleaning effectiveness of limestone and lime-based mortar substrates protected with anti-graffiti products](#)

A. Moura, I. Flores-Colen, J. de Brito, A. Dionisio (2016) Study of the cleaning effectiveness of limestone and lime-based mortar substrates protected with anti-graffiti products, *Journal of Cultural Heritage* , <http://dx.doi.org/10.1016/j.culher.2016.04.004>