

# CURRICULUM VITAE

## PERSONAL DATA

<b>Name</b>	Anabela Pacheco de Oliveira
<b>Place and date of birth</b>	Lisbon, March 10, 1967
<b>Nationality</b>	Portuguese
<b>Job Title</b>	Research Officer
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## ACADEMIC DEGREES

- 1997 - Ph.D. in Environmental Science and Engineering. Oregon Graduate Institute of Science & Technology, USA.
- 1994 - M.Sc. in Environmental Science and Engineering. Oregon Graduate Institute of Science & Technology, USA.
- 1990 - Diploma in Civil Engineering (hydraulics and water resources). Technical University of Lisbon, Portugal.

## CURRENT AND PREVIOUS POSTS

- Since 1999: Research Officer, LNEC, Lisbon, Portugal.
- 1997-1999: Fellow Research Officer, LNEC, Lisbon, Portugal.
- 1991-1997: Postgraduate Research Assistant. Oregon Graduate Institute of Science & Technology, USA.
- 1990-1991: Fellow Research Trainee, LNEC, Lisbon, Portugal.

## DOMAINS OF EXPERTISE

- Estuarine and Coastal hydraulics: hydrodynamics, morphodynamics, tracer transport, residence times and water quality.
- Integration of models and other tools to improve the forecasting capabilities of hydrodynamic, morphodynamic and water quality modeling in estuaries and coasts.
- Numerical modeling and numerical methods: development and application of unstructured grid models for estuarine and coastal dynamics

## RECENT RESEARCH PROJECTS

- *BGem - Towards operational forecasting of ecosystem dynamics: Benchmarking and Grid-enabling of an ecological model*, funded by the Luso-American Foundation for Development and the National Science Foundation, 2008-2009.
- *MADyCOS – Multidisciplinary integrated analysis of the sediment dynamics and fecal contamination in intermittent coastal systems*, funded by Fundação para a Ciência e a Tecnologia, 2007-2010 (PI).
- *G-Cast – Application of GRID-computing in a coastal morphodynamics nowcast-forecast system*, funded by Fundação para a Ciência e a Tecnologia, 2007-2010 (PI).
- *NOWCAST – Towards a nowcast-forecast system for estuarine and coastal water quality*, funded by the Luso-American Foundation for Development and the National Science Foundation, 2007 (PI).
- *IMMATIE – Improvement of a Morphodynamic Model Applied to Tidal Inlet Environments*, funded by the Marie Curie Program of the European Union, 2006-2008 (co-PI).
- *Integrated modeling system to support the prevention and the mitigation of oil spills in estuaries and coasts*, PhD thesis funded by Fundação para a Ciência e a Tecnologia, 2006-2010 (advisor).
- *Integrated analysis of the morphodynamics of the Aveiro tidal inlet*, PhD thesis funded by Fundação para a Ciência e a Tecnologia, 2006-2010 (co-advisor)
- *EMERA – Evolution of the Aveiro Tidal Inlet*, funded by Fundação para a Ciência e a Tecnologia, 2005-2008 (LNEC's team leader).
- *Hydrodynamics and Transport in Estuaries and Lagoons*, funded by LNEC's research program 2005-2009 (PI).
- *HarmoniQua - Harmonising Quality Assurance in model based catchment and river basin management* – EU 5<sup>th</sup> Framework Program 2002-2005 (Estuaries and Coastal Zones Division team leader in 2003-2005).

## SUPERVISING EXPERIENCE

- supervisor of a Pos-Doc (Ian Dodkins)
- co-advisor of a Pos-Doc (Dr. Xavier Bertin)
- advisor of an on-going PhD thesis (Mr. Alberto Azevedo)
- co-advisor of an on-going PhD thesis (Ms. Sandra Plecha)
- LNEC's training supervisor of an on-going PhD thesis (Ms. Lígia Pinto)
- Co-advisor a M.Sc. thesis (Ms. Marta Rodrigues)
- informal advisor of a M.Sc. thesis (Ms. Lígia Pinto)
- advisor/co-advisor of several research fellows and B.Sc. theses

## REVIEWER ACTIVITY

From 1997 to present, the undersigned has reviewed articles for many journals such as Coastal Engineering, Estuarine, Coastal and Shelf Science, ASCE Journal of Hydraulic Engineering, Numerical Methods for Partial Differential Equations, Water Resources Research, Advances in Water Resources, Ingeniería del Agua and Recursos Hídricos. She has also reviewed several papers for the ASCE Estuarine and Coastal Modeling book series.

## HONORS

- LNEC 2004 award for the best research paper published in journals indexed in the ISI Web of Knowledge
- Honorable mention of the Young Investigator Award in Applied and Computational Mechanics 2006, given by the Portuguese Association of Theoretical, Applied and Computational Mechanics

## SCIENTIFIC EVALUATIONS

The undersigned serves in the Hydraulics and Environment Department's scientific board of evaluation of young researchers.

## SELECTED PAPERS

- Bertin, X., A.B. Fortunato and A. Oliveira, 2008. A modeling-based analysis of processes driving wave-dominated inlets, *Continental Shelf Research*, submitted.
- Fortunato, A.B., X. Bertin and A. Oliveira, 2008. Space and time variability of uncertainty in morphodynamic simulations, *Coastal Engineering*, submitted.
- Bertin, X., A. Oliveira and A.B. Fortunato, 2008. Simulating morphodynamics with unstructured grids: description and validation of an operational model for coastal applications, *Ocean Modelling*, submitted.
- Dias, J.M., M.C. Sousa, X. Bertin, A.B. Fortunato and A. Oliveira, 2008. Numerical modeling of the impact of the Ancão Inlet relocation (Ria Formosa, Portugal), *Environmental Modeling and Software*, submitted.
- Vargas, C.I.C., F.S.B.F. Oliveira, A. Oliveira, N. Charneca, 2008. Análise da Vulnerabilidade de uma Praia Estuarina à Inundação: Aplicação à Restinga do Alfeite (Estuário do Tejo), *Revista Gestão Costeira Integrada*, 8/1: 25-43.
- Fortunato, A.B., M. Clímaco, F.S.B.F. Oliveira, A. Oliveira, F. Sancho and P. Freire, 2008. Dinâmica fisiográfica da oral costeira: Estudos de reabilitação e protecção, *Revista Gestão Costeira Integrada*, 8/1: 45-63.
- Budgell, W.P., A. Oliveira and M. D. Skogen, 2007. Scalar advection schemes for ocean modelling on unstructured triangular grids, *Ocean Dynamics*, 57/4-5: 339-361.
- Fortunato, A.B. and A. Oliveira. 2007. Improving the stability of a morphodynamic modeling system, *Journal of Coastal Research*, SI50: 486-490.
- Oliveira, A., A.B. Fortunato, M. Rodrigues and A. Azevedo. 2007. Integration of physical and water quality models, *Houille Blanche*, 4: 40-46.
- Fortunato, A.B. and A. Oliveira. 2007. Case study: promoting the stability of the Óbidos lagoon inlet, *Journal of Hydraulic Engineering*, 133/7: 816-824.
- Oliveira, A., A.B. Fortunato and J. Rego, 2006. Effect of morphological changes on the hydrodynamics and flushing properties of the Óbidos lagoon, *Continental Shelf Research*, 26, 917-942.
- Oliveira, A., A.B. Fortunato and L. Pinto, 2006. Modeling the Hydrodynamics and the Fate of Passive and Active Tracers in the Guadiana Estuary, *Estuarine, Coastal and Shelf Science*, 70, 76-84.
- Fortunato, A.B. and A. Oliveira, 2005. Influence of Intertidal Flats on Tidal Asymmetry, *Journal of Coastal Research*, 21/5: 1062-1067.

- Fortunato, A.B. and A. Oliveira, 2004. A modeling System for Tidally Driven Long-term Morphodynamics, *Journal of Hydraulic Research*, 42/4: 426-434.
- Pinto, L.L., A. Oliveira, A.B. Fortunato and A.M. Baptista, 2003. Analysis of the stratification in the Guadiana estuary, *Estuarine and Coastal Modeling VIII*, Spaulding [Ed.], American Society of Civil Engineers, 1094-1113.
- Oliveira, A. and A.B. Fortunato, 2002. Towards an Oscillation-Free, Mass Conservative, Eulerian-Lagrangian Transport Model, *Journal of Computational Physics*, 183/1: 142-164.
- Fortunato, A.B., L. Pinto, A. Oliveira and J.S. Ferreira, 2002. Tidally-Generated Shelf Waves off the Western Iberian Coast, *Continental Shelf Research*, 22/14: 1935-1950.
- Oliveira, A. and A.B. Fortunato, 2001. Oscillation-Removal Schemes for Salinity Studies, *Estuarine and Coastal Modeling VII*, Spaulding [ed.], American Society of Civil Engineers, 501-518.
- Oliveira, A., A.B. Fortunato and A.M. Baptista, 2000. Mass Balance in Eulerian-Lagrangian Transport Simulations in Estuaries, *ASCE Journal of Hydraulic Engineering*, 126/8: 605-614.
- Fortunato, A.B. and A. Oliveira, 1999. An Adaptive Grid Technique for the Vertical Structure of Hydrodynamic Models, *Applied Mathematical Modelling*, 23/8: 639-650.
- Fortunato, A.B., A. Oliveira and A.M. Baptista, 1999. On the Effect of Tidal Flats on the Hydrodynamics of the Tagus Estuary, *Oceanologica Acta*, 22/1: 31-44.
- Oliveira, A. and A.M. Baptista, 1998. The Role of Tracking on Eulerian-Lagrangian Solutions of the Transport Equation, *Advances in Water Resources*, 21/7, 539-554.
- Oliveira, A. and A.M. Baptista, 1997. Diagnostic Modeling of Residence Time in Estuaries, *Water Resources Research*, 33/8, 1935-1946.
- Oliveira, A. and A.M. Baptista, 1995. A Comparison of Integration and Interpolation Eulerian-Lagrangian Methods, *International Journal for Numerical Methods in Fluids*, 21/3, 183-204.

## CITATIONS

Over 100 citations in the ISI Web of Science.

Lisbon, July 2008

Anabela Oliveira  
Research Officer