



Mário Caetano

Principal Researcher -Directorate-General for Territory (DGT)
Associate Professor - Information Management School, New University of Lisbon (NOVA-IMS).

Rua Artilharia Um, 107, 1099-052 Lisboa Portugal
<http://dgterritorio.pt>
mario.caetano@dgterritorio.pt

Background

Mário Caetano has a degree in Forest Engineering from the Lisboa University of Technology (1989), a MSc in Geography from the University of California, Santa Barbara (1995), a Ph.D. in Forestry (2000) from the Lisboa University of Technology and Habilitation in Information Management (2013).

Activities in education

As Associate Professor in NOVA-IMS, Mário Caetano teaches, since 2000, master program classes related to remote sensing, image processing and environmental monitoring. He taught remote sensing and GIS classes in Universidade Atlântica, Universidade Católica and Instituto Superior de Agronomia, Universidade de Cabo Verde and Universidade Católica de Moçambique.

Since 2000, Mário Caetano was the scientific advisor of more than 60 graduate (MSc and PhD) students on thesis related to theory and applications of remote sensing on land cover mapping and environment monitoring. He was a member of around 30 MSc and PhD thesis committees.

Recent projects

Research interests include the use of remote sensing data for land cover land use (LCLU) characterisation and environmental monitoring. He is particularly interested on satellite image classification algorithms, spatial and temporal pattern analysis and on accuracy assessment strategies.

Mário Caetano has coordinated and participated in many research and development projects funded by Foundation for Science and Technology (FCT), European Commission (EC), European Space

Agency (ESA) and EUROSTAT such as: LCLU-STATS - Provision of harmonised land cover/land use information: LUCAS and national systems; RURINTFIRE - Fire in the Rural-Urban Interface: characterisation, risk mapping, and fuel break design; DesertWatch Extension for Portugal; LANDEO (User driven land cover characterisation for multi-scale monitoring using multi-sensor earth observation); AGRO130 (Using satellite images for automatic mapping of forest clear cuts and new plantations); APERTURE (environmental tyPological spacE mapper facilitating the implemenTation of eURopean legislation); AMECIS (Multi-strategic approach for satellite image processing); DREU (Assessment of the dynamics of the Área Metropolitana de Lisboa using remote sensing); PREMFIRe (Prevention and Mitigation of Fire Hazard in Portugal

He has also been the coordinator of land cover mapping projects using satellite imagery, e.g. CORINE Land Cover (2000, 2006, 2018) for the European Environment Agency (EEA). He is also responsible for the national program on Land Use and Land Cover Map (2007, 2010 and 2015).

Selected publications

Mário Caetano is author of more than 150 publications in books, journals and conference proceedings. Here, just a list of 5 publications is presented:

Costa, H., D. Almeida, F. Vala, F. Marcelino, e M. Caetano, 2018. Land cover mapping from remotely sensed and auxiliary data for harmonized official statistics, ISPRS International Journal of Geo-Information, 7(4), 157: 1-21.

Silva, J., F. Bação and M. Caetano, 2017. Specific Land Cover Class Mapping by Semi-Supervised Weighted Support Vector Machines, Remote Sensing, 9(181).

Tran, D., F. Pla, P. Carmona, S. Myint, M. Caetano, and H. Kieu, 2017. Characterizing the relationship between land use land cover change and land surface temperature, Journal of Photogrammetry and Remote Sensing, 124: 119-132.

Mühlbauer, S., A. Costa, e M. Caetano, 2016. A spatiotemporal analysis of droughts and the influence of North Atlantic Oscillation in the Iberian Peninsula based on MODIS imagery, Theoretical and Applied Climatology, 1-19.

Megahed, Y., Cabral, P. Silva, J., and M. Caetano, 2015. Land cover

mapping analysis and urban growth modelling using remote sensing techniques in Greater Cairo Region—Egypt, ISPRS International Journal of Geo-Information, 4: 1750-1769.