

SEMINÁRIOS 2019/2020
SEMINARS 2019/2020



CERENA

CENTRO DE RECURSOS NATURAIS E AMBIENTE



TÉCNICO LISBOA



PORTO

FEUP FACULDADE DE ENGENHARIA
UNIVERSIDADE DO PORTO

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SEMINÁRIOS CERENA 2019/2020

CERENA SEMINARS 2019/2020



CERENA's mission is to develop research at the highest level of excellence related to the sustainable use of natural resources, including energy, as well as their impact on the environment. CERENA uses an approach that is simultaneously integrative, multidisciplinary and multi-scale, from the molecular level to the planetary scale, where researchers from different scientific fields - earth, chemical and material engineering - converge towards the same objectives.

We are committed to finding solutions to current societal challenges, including those related to climate action, environment, health, raw materials and resources, efficiency and, safe, clean and efficient energy, in order to contribute to achieving the goals of sustainable development.

The CERENA Seminars 2019/2020 are intended to be a forum for discussion between researchers, students, industrial partners from diverse scientific areas based on a sustainable development goal in each session.

The Seminars are at **12-13h30**. Attendance is free but **form and email registration is mandatory** until 3 days before each seminar.

[Form](#)

[Email](#)

SEMINÁRIOS CERENA 2019/2020

CERENA SEMINARS 2019/2020

November, 26 – Técnico Central Building Meeting Room, Ground level

SDG 7: Challenges towards affordable and clean Energy

Chair: Leonardo Azevedo

A. Costa Silva, IST/PARTEX Oil&Gas, 'Energy and sustainable development'

José Granjo, CERENA, 'Modeling and design of biofuel processes'

Fabusuyi Oluwatosin John, CERENA, 'CCS: The case for geological CO₂ storage'

December, 11 – Técnico Civil Building Room 4.41

SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

Chair: Amélia Dionísio

Sofia Sousa, LEPABE, 'Air Quality in Urban Cities – Particulate Matter'

Amélia Dionísio, CERENA, 'Safeguarding Stone Cultural Heritage: lessons from the Past and opportunities for the Future'

Marta Bordonhos, CERENA, 'Separation of CO₂ from CH₄ and N₂ mixtures using new hybrid adsorbents in cyclic separation processes'

January, 8 – Técnico Civil Building Room 4.41

SDG 13: Climate change from pole to pole

Chair: Pedro Pina

João Canário, CQE, 'Permafrost degradation: When we thought that things could not get worst'

Gabriel Goyanes, CERENA, 'High resolution mapping with small UAV for assessing exposure of Antarctica Peninsula infrastructures to risk under climate change'

Redfred Ngowo, CERENA, 'Shoreline change analysis along Mnazi Bay - Ruvuma Estuary Marine Park (MBREMP) using Digital Shoreline Analysis System (DSAS)'

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CERENA SEMINARS 2019/2020

February, 17 – Técnico Civil Building Room 4.41

SDG 9: Sustainable Innovation

Chair: Ana Clara Marques

Vinicius Miranda, CEO and *chief scientist* of O-Pitblast, ‘Development of simulators for industry: a case study’

João Tedim, CICECO, ‘Working with nanostructured materials in the pursuit of functional coatings’

Mónica V. Loureiro, CERENA, ‘Encapsulation of isocyanate by a biodegradable polymer for eco-innovative adhesives’

March, 13 – Técnico Civil Building Room 4.41

SDG 12: Plastics in circular economy*

Chairs: Amélia Lemos and Teresa Carvalho

To be defined: ‘Plastics in circular economy’

To be defined: ‘Plastics recuperation from residues’

Tiago Godinho, CERENA, ‘Chemical recycling in a refinery’

April, 13 – Técnico Civil Building Room 4.41

SDG 15: The role of environmental technologies in the sustainable management of forest

Chair: Sandra Heleno

Alzira Ramos, CERENA, ‘Monitoring open oak woodland with Sentinel 2’

Margarida Mateus, CERENA/SECIL, ‘Biorefinery a circular solution for forest, industry and CO₂’

Gabriel Goyanes, CERENA, ‘Mapping forests with Unmanned Aerial Systems Photogrammetry’

*Note - This seminar will incorporate a CERENA outreach action on this topic, which will include guests from industry, waste management companies and teachers from the *Cientificamente Provável Programme*

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CERENA SEMINARS 2019/2020

May, 11 – Técnico Civil Building Room 4.41

SDG 6: Sustainable Water Availability and Management

Chair: José Manuel Marques

José Martins Carvalho, *Hemeritus* Professor IPP-ISEP, ‘The water crisis: the role of groundwater’

Manuel Antunes da Silva, Super Bock Group, ‘Sustainable management of natural mineral waters’

Carla Rocha, CERENA / C²TN, ‘Development of conceptual models in the sustainable management of mineral waters: the case study of Cabeço de Vide’

June, 15 – Técnico Civil Building Room 4.41

SDG 8: Decent work and economic growth

Chair: Gustavo Paneiro

Maria Cristina Vila, CERENA, ‘Application of biotechnologies for soil and subsoil beneficiation’

Moisés Pinto, CERENA, ‘Delivery vehicles of therapeutic gasotransmitters NO and H₂S based on nanoporous materials’

João Neves, CERENA, ‘Uncertainty integration into mine planning’

July, 13 – Técnico Civil Building Room 4.41

SDG 3: Public Health

Chair: Orquidia Neves

Maria de Lurdes Dinis, CERENA, ‘The exposure to radon gas – causes and effects on human health’

Manuel C. Ribeiro, CERENA, ‘Spatial uncertainty in associations between health and outdoor air pollution’

Paula da Silva Albuquerque, ESTSL, ‘Occupational exposure to welding fumes’



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