

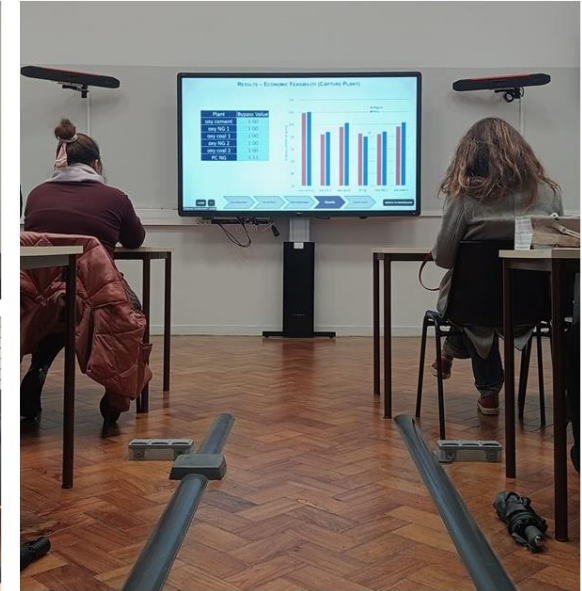
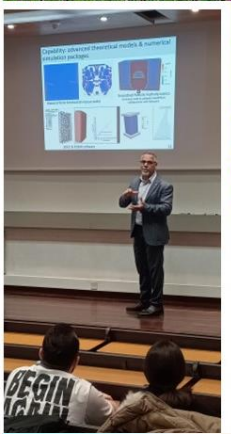


stayCERENA – March 2025

February in a nutshell



- February 11th | Prof. [Ana Margarida de Sousa](#) participated to the event [APDC - Como Melhorar a Presença de Meninas e Mulheres em STEM em Portugal?](#) in the panel about Inspiring STEM Initiatives and the Path Forward
- February 25th | Prof. [Murat Karakaus](#) from University of Adelaide (Australia) was invited to give a talk about *rockburst* (a process that happens when high underground stress causes rocks it to fracture or explode) at IST.
- February 27th | [Shahmir Noshervani](#) presented his PhD project on **The impact of impurities on carbon capture, utilization and storage**. Once again, we had a full house (around 25 people in IST, 5 in FEUP and many on Zoom), showing great interest and support in our PhD's hard work! See you in March!
- February 27th | [Maria Amélia Dionisio](#) visited the Agrupamento de Escolas Ferreira de Castro, in Sintra to talk to more than 90 students of the 9th grade about mineral resources





Activities of the month of February

Our people



João Narciso – Researcher for EnvG



[João](#) is that calm and kind office mate that everyone deserves. Pragmatic and often smiling, he says he loves the ocean, but only from the safety of land. No boats. If the waves are good you'll probably find him surfing them. His journey to become a researcher wasn't exactly planned. After studying in Coimbra and aiming for a geotechnical engineering career, João found himself involved in some research projects with the geophysical institute of the city, while bartending on the side. The connection with Susana Custódio and [João Fonseca](#), that brought him to Lisbon and IST, and then the shift from seismology to geomechanics and near-surface characterization sparked his interest to

continue on the academic path. If you're looking for him and are up for a good discussion, whether it's scientific, philosophical or even about beers and wines, head to room 2.i.07 in the Minas Building at IST, he is always up for it.

In your view, what is Engineering?

J: “It has to do with the focus on pragmatical solutions. It’s a solution-driven field of study, a more practical version of pure science.”

What are you working on at the moment?

J: “A few different projects, that span from deep reservoir characterization to agro-geophysics. This last topic is a new trend that I personally like to explore. It deals with characterizing soils using geophysical methods for agricultural application. The fields of viticulture and olive farming are very receptive and keen to explore these new methods.”

*What do you do when you have a task to complete but you don’t want to do it?**

J: “First I reflect if I *really* have to do it. If so, I focus on the objective and then I just do it.”

*question from the audience (previously interviewed members were asked to pose questions for other members, without knowing to whom they would be directed)

Ivo Paulo, PhD in Chemical Engineering



Meet [Ivo](#) Paulo, from the CERENA-IST team. Ivo is currently a Chemical Engineering PhD student, although he also recently started working at Syensqo. After he graduated in Biotechnology at the University of Beira Interior, Ivo moved to Lisbon, where he began working on various research projects with [João Bordado](#) and [Rui Galhano dos Santos](#). The research and innovation environment has always sparked his interest, so in 2018 he decided to eventually jump into the PhD journey.

What work are you doing at the moment?

I: “My PhD is focused on production of hydrogen starting from biowaste. The idea is to build a prototype that can transform liquid products into hydrogen.”

What results do you expect from your work?

I: “The ideal mid-term goal, roughly in one year's time, is to have a functional production line that goes from the liquefaction of biowaste to the final product. Currently, we are looking for the necessary equipment to build the line. After that, we'll develop a prototype that is between lab scale and pilot scale—essentially, a large-scale lab production line.”

What would you like to do when you finish your PhD?

I: “I would like to continue in research. I particularly enjoy doing research, always finding something new and innovative.”

Professor Maria João Pereira returns to Técnico



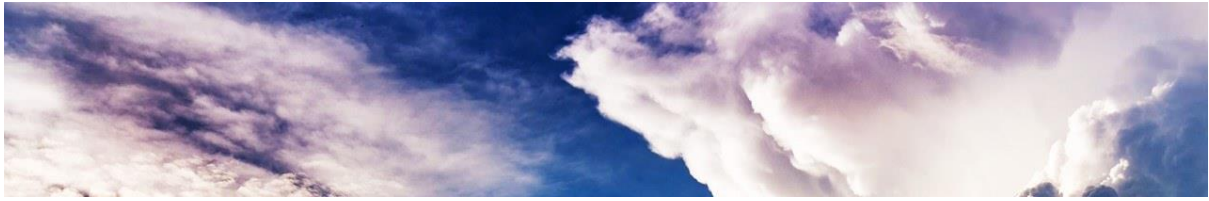
In February, [Maria João Pereira](#) resumed her activity as professor at IST and researcher of CERENA, after serving as Secretary of State for Energy in the current Portuguese Government.

In her words, the experience *“has been an incredible experience—challenging, rewarding, and full of learning. It was truly an honor to contribute to the energy transition and work alongside so many passionate and talented people.”*

Maria João is returning to Técnico (DER/CERENA) *“with the same enthusiasm and drive to keep pushing forward”* she says. *“The road to a **fair and inclusive** energy transition is still long, and many challenges lie ahead, but I'm eager to face them and continue pushing the boundaries of knowledge and innovation in this field.”*

Welcome back!

Dates to diary



- March 6th-9th 2025 | [Mostra UP](#) – University of Porto, CERENA-FEUP will participate with a stand showcasing “The mineral chain in robot manufacturing”
- March 20th 2025 | Spring Social Gathering for CERENA-IST – Forgotten Lab, Museu Décio Thadeu, Minas Building (IST Alameda)
- March 27th 2025 | CERENA Seminar by Miguel Gomes “**Exploring the Patterns of Drought Events in Southern Portugal**”
- April 5th 2025 | [Dia Aberto](#) (Open Day) at Instituto Superior Técnico
- April 4th-5th 2025 | [Fórum Nacional Ciência Viva](#) nas Escolas, Porto. CERENA-FEUP will participate with a stand showcasing “The mineral chain in robot manufacturing”
- May 8th-10th 2025 | CERENA Annual Meeting '25 at [INATEL Foz do Arelho](#) → save the dates and stay tuned.

Health and Wellbeing



Ergonomics focuses on adapting work to the individual, considering both equipment and the interactions between the person and their tasks, to fit the worker's characteristics, regardless of functional diversity.

Using a **good chair** for a sitting workstation, that should have the following features:

- The chair should be padded and made of breathable fabric. The padding reduces pressure on the back of the thighs, aiding circulation, and decreases pressure on the intervertebral discs, reducing the incidence of disc-related issues.
- The chair's height should be adjustable.
- The chair should also have adjustable armrests.

- The seat's anteroposterior dimension should neither be too long nor too short. The ideal size is one that fully supports the thighs without compressing the area behind the knees.
- Maintain a good angle between the torso and thighs, which should be between 90° and 100°.
- The backrest should, if possible, be slightly adjustable to follow the movement of the back. The lumbar support should be shaped to follow the curves of the spine, without straightening it, but also without accentuating its natural curves.
- The feet should always be flat on the floor, and shorter individuals should use footrests.

Learn more about ergonomics: <https://crpg.pt/ergonomia-no-posto-de-trabalho/>

Checklist for communicating your science



Checklist for scientists: communicating science to the public

Jacopo Pasotti, Iida Mannino,
Alessandra Fornetti
Venice International University

1. Are you allocating enough **time** for preparation and improving your communication skills?
2. Do you know who your **audience** is?
3. Have you identified the key **messages** to deliver and kept the focus on them?
4. Are you **framing the message** so that it sparks curiosity and is compelling to the public?
5. Are you **linking to current facts** or events?
6. Are you communicating **something that you also care about**?
7. Are you **telling stories** or just delivering a list of facts or numbers?
8. Are you using **a simple explanation**, can it be understood by the public?
9. Are you using **short sentences**?
10. Have you strategically planned ways to open **a dialogue and interact** with your audience?
11. Are you carefully thinking about how to **keep your delivery or writing lively** and monitoring the public's reaction?
12. Have you set out strategies to **deal with scepticism or distrust**?
13. Have you **practiced** your communication with non-experts?
14. Are you in touch with your **communication (or press) officers**?

The above checklist developed within the QUEST project supports scientists in delivering their message and fine-tuning their communication skills to the public. It is the result of several focus groups and interviews with both scientists working in different fields and trainers experienced in science communication. The checklist also draws from the literature review of published studies on scientists' perception and from available guidelines on science communication. Some of the points in the checklist apply in specific contexts and not in others; scientists are encouraged to go through the list and choose those elements that apply to their circumstances.

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Does it ring a bell? Know more on [Checklist for communicating science | CERENA](#)

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Quote of the month



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