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Downloaded On: Jan. 15, 2025 9:41am
Posted Jan. 10, 2025, set to expire May 12, 2025

**Job Title** INESC TEC | AE2024-0572 (Doctorate Researcher)

**Department** CAP

Institution INESC TEC

PORTO, , Portugal

Date Posted Jan. 10, 2025

**Application Deadline** Jan. 16, 2025 **Position Start Date** Jan. 3, 2025

Job Categories Graduate Student

Academic Field(s) Engineering - Other

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**Apply By Email** 

**Job Description** 

Research Opportunities

Development of optical sensors for ocean monitoring

**Work description** 



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Water quality is a critical factor for human survival and the health of aquatic ecosystems, ranging from rivers to oceans. In this context, continuous monitoring of this resource is essential to ensure its preservation and sustainability. Monitoring becomes particularly important in scenarios where human activities, such as installing reinforced concrete structures in the ocean for wind energy generation, may impact water quality.

The primary objective of this work is to study, develop, and implement innovative optical sensors capable of operating in extreme conditions, such as high salinity, pressure, and temperature, while providing accurate data on chemical and biological parameters.

### **Academic Qualifications**

PhD in Physics Engineering

## Minimum profile required

- Proven experience in fiber optic sensors and in simulating the propagation of electromagnetic radiation in a waveguide.
- Advanced knowledge of development and characterization of plasmonic structures for the detection of chemical and biological targets

### Preference factors

- Advanced knowledge of nanoparticle synthesis and optical characterization.
- Demonstrated ability to develop instrumentation for controlling autonomous systems and optical interrogation of developed sensors.

### SALARY LEVEL

In accordance with article 15 of the RJEC and article 2 of Regulatory Decree no. 11-A/2017, of 29 December, the gross monthly base remuneration to be awarded is based on remuneration level 1 of



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the Investigador Júnior category of the Public Scientific Research Career Statute, with INESC TEC applying its own remuneration table for R&D doctoral employees, with a value of €2348.34 for the equivalent category.

## **Application Period**

Since 03 Jan 2025 to 16 Jan 2025

## Centre

**Applied Photonics** 

### Scientific Advisor

Abel Alves

### What we offer

- Multicultural and collaborative environment
- A multicultural, international and collaborative environment that makes it easier to exchange ideas, work in networks and create synergies.
- International projects
- The possibility of working in international projects with some of the most important companies in the field.
- Mentoring
- Mentoring with the best researchers in the fields of electrical and industrial engineering, bioengineering, information technology and physics.
- Self Improvement
- The possibility of participating in international conferences, workshops, seminars and vocational training.
- Other Benefits and Perks
- Flexible working time, health insurance, discounts in hotels, transportation, etc.



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- Informal Events
- Annual informal events, such as the multicultural party.

For more information: Click Here

## **Contact Information**

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Portugal

Contact E-mail rh@inesctec.pt