

INESC TEC | Post Doctoral Research Grant (AE2025-0280)
INESC TEC

Direct Link: <https://www.AcademicKeys.com/r?job=259627>

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Posted Jul. 11, 2025, set to expire Nov. 10, 2025

Job Title	INESC TEC Post Doctoral Research Grant (AE2025-0280)
Department	CRIIS
Institution	INESC TEC PORTO, , Portugal
Date Posted	Jul. 11, 2025
Application Deadline	Jul. 23, 2025
Position Start Date	Jul. 10, 2025
Job Categories	Graduate Student
Academic Field(s)	Engineering - Other
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Apply By Email	
Job Description	

Research Opportunities

Precision Agriculture, bioinformatics, System Biology, Genome Scale Model, Plant physiology, Molecular biology

Work description

- Review state of the art, develop benchmarks, and create a proof of concept for advanced precision agriculture models based on integrating spectral data, multi-omics, and systems biology (SB).

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- Characterize grapevine physiological, metabolic, and transcriptional responses to abiotic stress, validating field/greenhouse spectral data.
- Develop a SB approach to map metabolic pathways of the grapevine and infer a virtual grapevine phenotype/physiological feature space model.
- Explore computational methods and genome-scale metabolic models to apply to optimize phenotype/physiological space through mechanistic diagnosis and simulations.
- Develop an AI-driven platform that fuses SB and real-time field spectral data to advance precision viticulture.
- Participate in laboratory and field activities (flexible schedule) within the project scope.
- Test and validate the designed solutions in a real-world context and publish the results.
- The researcher is also expected to participate in the following activities: co/supervise PhD and MSc students.
- Develop and write scientific articles (Q1 percentile).
- Actively contribute their developments to competitive project contests in the research line.

Academic Qualifications

- PhD in Agricultural Sciences, Bioengineering, Biochemistry, Biology, BioInformatics/BS, Biotechnological Engineering and related areas.

Minimum profile required

- Precision and digital agriculture.
- Plant physiology.
- Biochemistry- BS: 'genotype-scale metabolic models'- AI-based predictive models.- Computational: R (Bioconductor), MATLAB (computational biology), Python (e.g. pyCOBRA, pyMEW) and Bioinformatics for database searching.- Multiomics integration (e.g. HPLC, GCMS).

Preference factors

- Proven experience in Systems Biology and Bioinformatics, Plant Physiology, Molecular Biology, Biochemistry The jury may not award the scholarship if the quality of the candidates is lower than desired.

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Maintenance stipend: € 1851.00, according to the table of monthly maintenance stipend for FCT grants, paid via bank transfer. Grant holders may be awarded potential supplements, according to a quarterly evaluation process (Articles 19, 21 and 22 of the Regulations for Grants of INESC TEC and Annex II), up to a maximum limit of 50% of the monthly maintenance stipend.

INESC TEC supports costs with registration, enrolment or tuition fees, during the grant duration, under the terms established in the internal document: "Payment of Tuition fees to grant holders".

The grant holder will benefit from health insurance, supported by INESC TEC.

Application Period

Since 10 Jul 2025 to 23 Jul 2025

Centre

Robotics in Industry and Intelligent Systems

Scientific Advisor

[Mário Cunha](#)

What we offer

- **Multicultural and collaborative environment**
- A multicultural, international and collaborative environment that makes it easier to exchange

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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.
- **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

INESC TEC - Instituto De Engenharia De Sistemas E Computadores, Tecnologia E Ciência
Portugal

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