

Forest Science and Technology Centre of Catalonia (CTFC) is a research centre affiliated with the Generalitat de Catalunya (the Catalan government), and it reports to the Ministry responsible for forest issues.

CTFC is a CERCA centre and a government accredited TECNIO agent (developer of public technology).

It was granted a 'Human Resources Excellence in Research' award by the European Commission, recognizing CTFC as a European research institution that fosters an attractive and motivating work environment.

Post-Doctoral offer in remote sensing

Reference: 24-06-00034

The Forest Science and Technology Centre of Catalonia (CTFC), located in Solsona (Pre-Pyrenees, 120 km from Barcelona), Spain, employs app. 160 staff, produces >120 scientific articles annually and has a turnover of app. 9 Mil. €/year. Further institutional information is available at: www.ctfc.cat/en.

CTFC's research activity is organised around three programs: 1) Multifunctional Forest Management; 2) Landscape Dynamics and Biodiversity; 3) Bioeconomy and Governance. A Project Promotion Office (PPO) gives support to all the researchers and technicians in managing projects. As part of the Landscape Dynamics and Biodiversity program, the CTFC undertakes research on forest growth and yield modelling, ecosystem services provision modelling, innovation in multi-purpose forest planning at different scales targeting different ecosystem services, as well as developing forest simulators and spatial optimization tools.

Within this program, the CTFC is seeking to appoint a post-doctoral senior researcher to lead and conduct fundamental and applied research related to the use of remote sensing data (satellite, radar, and LIDAR) for forest monitoring and management. Thus,

- The tasks carried out will be synergistic with the objectives of different projects carried out at the CTFC and will concentrate mainly in monitoring, validating, and reporting different forest ecosystem indicators (e.g. biomass, fuel models, changes in LAI, etc.) and on the integration of these in forest planning.
- The work will involve the acquisition and analysis of field and remote sensing data at different levels (e.g. Europe, Spain, regional).
- Then this data collected will be integrated into Decision Support Systems (DSS) and forest modelling, to address effects of different forest management approaches on the provision of ecosystem services and effects of climate change on forests.
- A focus will be paid on the detection and characterization of forest disturbances based on remote sensing data.

TERMS OF THE APPOINTMENT

- This contract may start on September 2024.
- It is a full-time position with a duration of 2 years (with possibility of contract extension).
- The candidate will be based at CTFC in Solsona (NE Spain), working as member of the Landscapes dynamics program (MFM).
- Based on CTFC labour categories, annual gross salary will be adjusted to the foreseen role (Team leader) and will be commensurate with the specific profile of the selected candidate (qualifications and experience) but may be between 32.000 and 40.000 €/year.

TASKS

Key responsibilities will include:

- Help to design a geo-referenced data base at European level able to store data describing the state of the forests (e.g. biomass map).
- Design a methodology to generate/maintain previous database/maps using satellite data, LiDAR information, radar, etc....
- Develop tools that allow actualizing automatically all the layers of information described in the database. This may include AI algorithms. That can be used to detect changes due to forest management, pests, fires, or any other disturbance. Generate forest maps at the regional level with variables at the tree and understory level to be able to make future predictions with simulation systems that work at the tree level (e.g., FORMES, <https://www.ctfc.cat/en/formes.php>).
- Project proposals preparation and fundraising.
- Publication and dissemination of results in scientific publications and technical meetings and knowledge transfer activities.
- Contribution to other institutional activities.

REQUIREMENTS

The candidate must hold a completed PhD on Forest Sciences or related suitable discipline for the main topic of this call. Master's degree in, Forests Sciences, Biology, Environmental Data Sciences, Earth observation, Remote Sensing or equivalent is an asset. He/she must demonstrate knowledge and experience in drone imagery, multispectral and hyperspectral imagery, spectral analysis, time-series analysis, change detection, upscaling, data fusion, forest pests and diseases, environmental modelling, machine learning, and statistics are meritorious, as well as the ability of fast learning and critical thinking.

The assessment will put particular emphasis on (1) your scientific proficiency in technology and engineering subjects that are relevant to the position, (2) the authorship of relevant publications, (3) your ability to develop independent research and answer scientific questions, (4) your ability to collaborate and complement the ongoing research within the group. We also put great importance on personal qualities, such as teamwork, problem-solving, coordination, leadership, communication, executive skills, and independence.

Advanced knowledge of English and proficiency in Spanish, both spoken and written. Catalan is an asset.

CONTACT

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CTFC guarantees an open, transparent, and merit-based recruitment process (OTM-R) to all registered candidacies, thereby avoiding any bias related to gender, origin, age, ideology, or other circumstances that could be discriminatory. Integration policy: Candidates who have a recognized disability and accredited equal to or greater than 33%, will be prioritized, provided that the disability is compatible with the proper performance of the job.

SELECTION PROCESS AND CRITERIA

The selection process is led by the Human Resources of CTFC. This process consists of:

1. **Admission of candidates:** applicants must submit a curriculum vitae and motivation letter addressed to borsa.treball@ctfc.cat, until **6th august 2024**, indicating the reference code of the offer.
2. **Pre-selection:** verification of compliance with the minimum requirements of the offer.
3. **Selection (August 2024):** assessment of the preselected candidates by scoring based on objective criteria and interview.
4. **Final decision:** in case of finding the suitable person, the election will be formally communicated to him/her, and the identification of the chosen person will be published on the CTFC job openings section.

Further information: borsa.treball@ctfc.cat

Indicative Calendar	
30 working days	Publication and dissemination of the job offer: CTFC website, SOC Office and other dissemination channels.
Next 2 working days	Preselection: determination of compliance with the minimum requirements of the offer. Evaluation of the pre-selected candidacies, through a score based on objective criteria, and suitable pre-selected CVs are forwarded to the Selection Committee for review . Sending informative mail to CVs not suitable to continue in the process.
Next 2 working days	Selection committee celebration: Interview with the selected suitable candidates. Selection Committee Minutes with the selected candidate and the reasons for the selection. Publication in the CTFC job board of the resolution identifying the elected person. Sending informational Mail to suitable CVs interviewed not selected.
Next 1 working day	Sending to Human Resources the official documentation necessary to process the employment contract, and coordination with the start date of the contract.
September 2024 (approximately)	Start of the contract.