

Company Description

TECNALIA <https://www.tecnalia.com/> is the first Private Applied Research Center in Spain and the seventh in Europe, with a workforce of 1,405 highly qualified people. TECNALIA is a leading Research and Technological Development Centre in Europe, whose mission is to transform technology into GDP to improve people's quality of life, by creating business opportunities for companies, being member of BRTA (Basque Research and Technology Alliance). TECNALIA works with an increasingly strategic business relationship model based on trust, collaboration, and a shared technological approach, whereby our main scopes of action area: digital transformation, advanced manufacturing, energy transition, sustainable mobility, health, and the urban ecosystem. The group is the first private Spanish organisation in contracting, participation, and leadership in the European Commission's Horizon 2020 programme and we are ranked second in European patent applications. The ICT Division is formed by researchers and technologists focused on solutions design by developing and integrating the most suitable technologies required regarding digital processes, products, and services. We seek to align business transformation with digital model shift, driving new opportunities with digital technologies at the core. The digital technologies we work on may either be driving new business directly related to the new skills they bring, or they may

Information

 **Deadline:** 2021-10-01
 **Category:** Business
 **Province:** Bizkaia

 **Country:** Basque Country
 **City:** Zamudio

Company

Tecnalia Research and Innovation



Main functions, requisites & benefits

Main functions

TECNALIA together with IKERBASQUE invites applications for one Lead Researcher in Quantum Computing. This Lead Researcher call offers a permanent research position for a Lead Researcher willing to develop a long-term scientific career in the Basque Country. The evaluation committee will consider the strongest candidates with excellent leadership capabilities and an outstanding research record. The selected candidate is expected to establish a sustainable research program. We are seeking for a candidate with a prominent international profile in the practical and theoretical aspects of quantum computing. Candidates must have strong postdoctoral research experience and relevant records in the field of Quantum Computing and related areas. Areas of interest include, but are not limited to, quantum algorithms, quantum cryptography, systems software for quantum computers, quantum AI, and theoretical foundations of quantum computing. Candidates are expected to have an excellent research program with a strong publication record. Candidates with practical and interdisciplinary experience will be given a priority. Candidates are required to be able to develop not only methodological research but also multidisciplinary applications in collaboration with several research stakeholders. The candidate should be capable of promoting international collaborations, attracting competitive funding and establishing his/her own research groups. The Candidate will be an integral member of the rapidly growing Quantum Technology Research&Development and experimentation activities at TECNALIA, working in close collaboration with a number of national and international research groups and enterprise partners in the area of quantum computing technologies and its application.

Requisites

Essential Qualifications/Skills Required: A Ph.D. in a domain relevant to Quantum Computing or a related discipline. Strong Postdoctoral Research experience and outstanding research record in Quantum Computing. Experience in Quantum Programming and Software Development using at least one of the Quantum Software development toolkits/frameworks such as IBM Qiskit, D-Wave, Rigetti, IonQ, Fujitsu's Digital Annealer or others. Experience with implementing quantum algorithms or solutions based on Machine Learning, Optimization or Cryptography technologies for the following domains: transport systems and networks, energy, industry, pharma, chemistry, or agriculture. Experience in at least one of the following languages: Python, C, C++, or Java. Experience in compilation, coding theory, error correction, fault-tolerant computing, or verification of classical or quantum programs. Ability to work in a multi-disciplinary team with academic, research and industry partners, with excellent communication and organisational skills. Languages: Applicants should be fluent in English. Knowledge of Spanish will be positively valued. **Desirable Requirements:** Knowledge of circuit optimisation, noise models and quantum memory models. Knowledge of working on HPC systems, CI/CD pipeline and tools. Knowledge of working on optimisation and machine learning.

Benefits

Professional development opportunities in a sector with high growth expectations. To develop your Research Career working on