

TECNALIA RESEARCH & INNOVATION SCHOLARSHIPS

PHD SCHOLARSHIP SCHEME CALL FOR APPLICATIONS 2018

CALL SPECIFICATIONS

1. PURPOSE of the SCHEME

The purpose of this call is to award 24 scholarships to help beneficiaries (hereafter “trainee research staff”), to complete their doctoral dissertations while they are at one of Fundación TECNALIA RESEARCH & INNOVATION (hereafter "TECNALIA") centres.

In particular, the 24 scholarships offered in this scheme are as follows:

1. 3D Vision for Scene modelling and understanding in the context of Autonomous Robotic Assembly
2. Structural damage detection algorithms (SHM) through a combination of computational mechanics and Deep Learning.
3. Fermented and probiotic foods obtained from food by-products.
4. Energy analysis of high efficiency sustainable buildings and districts through physical modelling and simulation.
5. High performance isocyanate-free bio-polyurethanes (Bio-NIPUs) based on used vegetable cooking oil.
6. Advanced control for the aircrafts of the future.
7. Cooperative manoeuvres for urban environments with automated vehicles.
8. Advanced steel development
9. Development of structural elements of responsibility through 3d printing of cement based materials.
10. Development of additive manufacturing via WAAM technology in aeronautical metal alloys.
11. Development of new high-performance PUR resin formulations for structural components high production rate processes
12. Development of a multi-scale model for the prediction of failure in AHSS steels in stamping / deep drawing processes for the automotive sector.
13. The advanced diagnosis and impact model of data analysis in the digital industry
14. Control strategies to extend the useful life of offshore wind turbines on floating platforms.
15. Instrumentation and Advanced Analytics Applied to machining processes.
16. Improving the scalability and performance of the Blockchain for the management of identities in the Internet of Things.
17. Control and management methods of AC/DC hybrid networks
18. Modelling of the behaviour of nanometric ceramic particles in aluminium alloys in liquid state and their influence on properties
19. Deep Learning Models for High Dimensionality Big Data Problems.
20. New decentralised control architectures for a future digitalised electrical grid
21. New Hybrid Models of Energy Assets for O & M.
22. New Hybrid Models of Machine Learning (Shallow and Deep Learning) and Data Stream Mining (Stream Mining) for the Operation and Maintenance of Energy Assets and Energy Efficiency.

23. Reliability and Maintenance modeling for Smart Industry.
24. Nature-Based Solutions (NBS) for adaptation to climate change and increased urban and land resilience

2. BENEFICIARIES

- Candidates who have completed a university degree with a credit value of more than 300 ECTS, or an official Master's degree, that grant access to the doctoral programme, after 15th October 2015.
- Or who on the date of this call are already enrolled in an official Master course that grant access to the doctoral programme.

3. PROGRAMME CHARACTERISTICS

Duration: The scholarship duration will not exceed four years pursuant to the provisions of the Trainee Research Staff Statutes. The first two-year period is subsidised with a grant and the second maximum two-year period with a training contract. Renewable for 1 year periods.

Should the doctoral dissertation be completed prior to the end of the four year period, the training programme will expire the month when the dissertation is defended.

Monetary allowance: The gross monthly allowance during the grant period will be €1,250. During this period, trainee research staff awarded with the grant will be entitled to a monetary allowance during the grant period (not as a salary) and to be included in the General Social Security System under the terms and conditions included in

Section 1 of the Supplementary Provision of Royal Decree 63/2006. Moreover, pursuant to the provisions of Article 6.e) of the abovementioned Royal Decree, trainee research staff shall have the same obligations corresponding to those registered in the General Social Security System during the grant period. During this time, the allowance is not subject to Personal Income Tax, in accordance with the provisions of Article 9 of the Provincial Regulation 3/2014, dated 17th January, on Personal Income Tax for the province of Gipuzkoa, Article 9 of the Provincial Regulation 13/2013, dated 5th December, on Personal Income Tax for the province of Bizkaia and Article 9 of the Provincial Regulation 33/2013, dated 27th November, on Personal Income Tax for the province of Alava. This allowance will include, if applicable and upon prior agreement between TECNALIA and the beneficiary - research staff, additional aid to cover transport, maintenance and accommodation costs arising from attending scientific forums and meetings, as well as carrying out temporary stays at research centres other than the one the scholarship holder is assigned to complete their research training.

From the year three, a work experience agreement will be entered into by the trainee research staff and Fundación Tecnalia Research & Innovation (TRI) and receiving the remuneration to which they are legally entitled.

Starting Date (approx.): From 15th October 2018. In the event the starting date is after the 15th October 2018, the monetary allowance will be proportionally adjusted.

Regardless of the starting date at the Centre where the programme is conducted the end date for the first year grant period will be 14th October 2019.

4. APPLICATIONSUBMISSION

4.1 **Submission:** Applications will be processed using the Application Form available from TECNALIA website (also available in Talent Clue website).

<http://www.tecnalia.com/en/people-employment/phd-scholarships/phd-scholarship.htm>

4.2 **Dates:** Applications may be submitted from the date the call is published until the 10th June 2018 (both inclusive).

4.3 **Conditions:** Candidates who have completed a university degree with a credit value of more than 300 ECTS, or an official Master's degree that grant access to the official doctoral programme after 15th October 2015. Or who on the date of this call are already enrolled in an official Master course that grant access to the doctoral programme.

4.4 **Languages:** Applications may be submitted in Spanish, Basque or English.

4.5 Documentation required for the application includes:

- 4.5.1. A duly completed application form.
- 4.5.2. CV and academic record
- 4.5.3. TRI may request additional documentation.

Any questions should be addressed to the following email address:

becasdoctorado@tecnalia.com

4-6 The same candidate may only take part in a maximum number of 3 shortlisting processes to become a beneficiary of any of the scholarships listed in point 1 of this scheme. The allocation/award of any of the scholarships listed in point 1 of this scheme shall automatically prevent the same candidate from becoming a beneficiary of any other scholarships in this scheme.

5. SHORTLISTING & AWARD NOTIFICATION PROCESS

5.1 Selection Criteria

TECNALIA will appoint a Panel of Experts to award the grants offered in this scheme. First, the applications are assessed using the following criteria:

- Fulfilment of degree requirements as per call
- CV and academic record
- Degrees

This first phase of the shortlisting processes will be carried out exclusively based on the information provided by the applicant via the website. The applicant must provide proof of all documentation provided.

Candidates who have completed foreign degrees must have the required documentation for pre-registration and enrolment in the official doctoral program upon submitting the application.

The second phase of the short-listing processes will initially include a technical screening, followed by a personal interview with candidates who obtained the highest score which consisting

of the following:

- Knowledge of languages
- Subject of the end-of-degree project; technical work completed; research or any other merit presented by the applicant;
- Personal skills and competences

5.2 Notification and Publication

Each scholarship awarded through this scheme will be allocated/awarded to candidates shortlisted at the end of each selection process. Candidates who have been short-listed accordingly and interviewed with positive evaluation but did not receive the scholarship will be kept on a waiting list. Should there be any vacancies for the scholarships awarded, TRI may select a new beneficiary from the waiting list.

Throughout each selection process, applicants will be informed of the process progress via email. The official awarding of each scholarship offered through this scheme will be notified as they are allocated/awarded, via email to the corresponding beneficiary by TRI. Furthermore, the allocation/award of each scholarship offered through this scheme will be published on TRI website.

TRI may declare void (not awarded) any scholarship award if it is considered that none of the applicants sufficiently fulfills the conditions for the optimum development of the offered PhD scholarships, according to the criteria specified in these specifications and in the detailed profiles for each scholarship.

Should any scholarship award be declared null or void (not awarded) or the Scheme being awarded modified, TRI reserves the right to make any decisions deemed appropriate under the spirit of this scholarship award call.

6. BENEFIT CONDITIONS

6.1 Legal Framework

This Grant Programme call for applications is regulated by current Specifications and the provisions of Royal Decree 63/2006 of 27th January which approves the Trainee Research Staff Statutes, will be applied.

6.2 Terms and conditions

To start benefiting from the scholarship the beneficiary will join the Attached Centre where training will be imparted, undertaking to complete the programme scheduled and comply with TRI rules at all times, displaying the attitude and interest required to make the most of the scheme.

The award of each scholarship is conditional upon admission and enrolment of the beneficiary in the appropriate doctoral program; if the beneficiary is not admitted or does not enroll in the doctoral program, the scholarship will be automatically resolved.

For the development of the doctoral thesis, trainee research staff will be assigned a co-supervisor in TECNALIA and a co-supervisor in the University. The co-supervision should be evaluated by the commission of the doctoral program in which the thesis is framed, so that it is formally registered

since the beginning of its development. Exceptionally, the supervision of the doctoral thesis at the University and Tecnalia could fall on the same person. This will be carried out notwithstanding the general control of trainee research staff activities which TRI may reserve at all times.

Notwithstanding provisions included in 4.6 of this scheme, the benefit period for this Grant Scheme is not compatible with reception of any other Grant (except for supplementary allowances referred to in section d) of art 5.1 of EPIF), professional fees or remuneration for services carried out in a self-employed or employed capacity.

TRI reserves the right to demand reimbursement of any allowances paid in the event of non-compliance with the Programme.

TRI reserves the right to request a report detailing activities carried out, at any time of the year by the trainee researcher. Failure to produce this report or an unsuccessful assessment by TRI may lead to immediate termination of the scholarship. This decision will always be justified.

In addition, the following reasons may be considered to terminate a grant or, for temporary suspension thereof, if applicable:

- the planned training outcomes cannot be achieved;
- clear misuse of the scholarship;
- equipment and material misuse;
- failure to observe centre rules;
- lack of confidentiality;
- improper communication (form or content) of the activity carried out;
- and other types of behaviour which may reveal attitudes contrary to the scholarship aims or people, assets or behaviour standards of the attached centre.

6.3 Rights and Obligations

Beneficiaries will be bound to the following rights and obligations:

- The economic allowance specified in the current call for applications will be assigned to beneficiaries for training purposes.
- Beneficiaries will have the opportunity to receive additional training on top of the grant contents, according to TRI rules.
- TRI will be available at all times to deal with their requirements.
- Regarding security and accesses, they will be subject to compliance to internal TRI regulations where the activities are carried out.
- Any intellectual property rights derived from the research training activity carried out by the beneficiary and which according to his/her contribution will belong to the beneficiary, pursuant to the provisions of the revised text of the Intellectual Property law, enacted by the Royal Legislative Degree 1/1996 of 12th April. The abovementioned rights will be independent, compatible and accumulative to other rights which may be derived from the research activity carried out, notwithstanding determining factors derived from collective work when the beneficiary participates or is involved in a collective research project.
- The matters subject to research or study at the centre and after the allowance is used must be treated with maximum confidentiality and express approval of TRI must be sought for their use and/or dissemination to third parties.
- Any other rights and obligations set forth in the Royal Decree 63/2006 which approves the Trainee Researcher Staff Statutes.

TRI will be subject to the rights and obligations set forth in the Royal Decree 63/2006, which

approves the Trainee Research Staff Statutes and will monitor the correct training performance, facilitating the tasks to be carried out by trainee research staff.

Any publication derived from the research activity must make a reference to the scholarship provided by TECNALIA, which will also receive a copy.

TRI will issue a Diploma accrediting the activity carried out from the start of the third training year.

7. OTHER CONDITIONS

Applying to the scholarship automatically implies acceptance of these specifications and TECNALIA will resolve any issue which may arise.

TECNALIA reserves the right to make any changes to these “PhD Scholarship Scheme 2018” call for applications specifications as it may consider appropriate or even to end the call for applications, in particular including but not limited to the event of legal amendments modifying the terms and conditions of the original scheme.

All contents of the scholarship/allowance scheme are totally confidential. Therefore, during the allowance/scholarship validity term and once terminated due to whatever reason, the allowance/scholarship beneficiary expressly undertakes to maintain confidential any information, documentation, work methodology and/or any other item provided or facilitated by the concessionary during the term of this scholarship scheme. In the event of non-compliance by the beneficiary with the confidentiality commitment set forth in this clause, the concessionary reserves the right to undertake any corresponding legal action to repair any damage and loss which may be derived from non-compliance by the scholarship beneficiary.

Moreover, scholarship beneficiaries expressly agree to their full names being included in a list of beneficiaries published on TECNALIA website.

8. INFORMATION

- By telephone: +34 946 430 850.
- Website www.tecnalia.com
- By Email: becasdoctorado@tecnalia.com