

CALL FOR CITMAga STAFF RECRUITMENT

JOB VACANCY FOR SPECIFIC PROJECT OR SERVICE

PROJECT: “Expert system for the improvement of solutions and optimization of bio sustainable” production processes”.

JOB VACANCY REFERENCE: CITMAga-OT-14/2021.

DESCRIPTION OF JOB POSITION: 2 full-time contract as **researcher with experience** for a **research project**, in the framework of the agreement between CITMAga (Consortium Center for Research and Mathematical Technology of Galicia) and an energy company.

PRINCIPAL INVESTIGATORS: Profa. Dra. Beatriz Pateiro, Prof. Dr. Francisco Pena Brage y Prof. Dr. Julio González Díaz.

CANDIDATES PROFILE: PhD related to Mathematics, Physics, Engineering and Computing (or similar).

MERITS AND REQUIREMENTS TO BE ASSESSED:

- **Training and general experience to be assessed (40 points, all contributions must be documented).**

1) OT-14/2021/P1: Profile oriented to market prediction and stochastic optimization.

- Academic transcript of the degree or bachelor’s degree, engineering, master’s degree, Phd degree.
- Affinity of the qualifications of the candidate with the field of Statistics and Operations Research.
- Knowledge and previous experience in statistical prediction models and inclusion of uncertainty in stochastic models, as well as in the implementation and computer validation of algorithms and methods typical of these disciplines.
- Knowledge of English.

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2) OT-14/2021/P2: Profile oriented to stochastic optimization applications programming.

- Academic transcript of the degree of bachelor's degree, engineering, master's degree, Phd degree.
- Affinity of the qualifications of the candidate with the field of Computing, Statistics and Operations Research.
- Knowledge and previous experience in the implementation of algorithms of mathematical optimization, specifically, in stochastic programming algorithms.
- Knowledge of English.

■ **Knowledge and additional and specific experience to be assessed (30 points, all contributions must be documented).**

At the time of assessing the submitted applications, experience in some of the following fields related to the research areas of the Project will also be taken into account, **but it is not necessary to have experience in all of them:**

- Mathematical programming / optimization.
- Stochastic programming / optimization.
- Modelling optimization problems in AMPL and Pyomo.
- Implementation and validation of mathematical optimization algorithms.
- Machine Learning
- Statistical prediction with time series.
- Scenario reduction techniques.
- Programming in languages of scientific calculation (Python, R, C++,etc.).
- Use of non-relational databases.
- Use of the Microsoft Azure platform.

The assessment of these merits will be based on the most appropriate profile for each candidate.

1) OT-14/2021/P1: Place profile 1

Previous experience in market prediction and stochastic optimization for solving planning problems in industrial process plants will be valued.

2) OT-14/2021/P2: Place profile 2.

Previous experience in computer implementation of mathematical optimization algorithms related to planning in industrial process plants, also in the development of productive environments in the platform Microsoft Azure will be valued.

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Personal interview (30 points).

Candidates achieving the best assessments according to the above criteria will be called to a personal interview and a test related to the functions of the position. At least the three best rated candidates will be interviewed and between the two previous sections have reached at least 35 points.

GENERAL REQUIREMENTS FOR CANDIDATES

To be admitted the applicants, in addition to fulfilling the specific requirements demanded in the activity or project for which they make their request indicated in the previous point, they must have on the day of completion of submission of applications and keep them until the expected date of completion of the contract, the following general requirements:

- Be Spanish or national of any of the other Member States of the European Union or national of any state to which, by virtue of international treaties concluded by the European Union and ratified by Spain, the free movement of workers applies.
- The spouse of Spaniards and nationals of one of the other Member States of the European Union may also participate, whatever their nationality, and when the corresponding treaty so provides, or of nationals of a state to which By virtue of the international treaties concluded by the European Union and ratified by Spain, the free movement of workers applies to them, provided they are not legally separated. Likewise, with the same conditions, their descendants and those of their spouse, under the age of twenty-one or older than that who live in their charge, may participate.
- Likewise, nationals of countries that are not members of the European Union or that are not included in the scope of international treaties concluded by the European Union and ratified by Spain in which the free movement of workers is applicable may participate. However, the formalization of the employment contract with these nationals is conditioned to the applicants having granted the exception or work permit and legal residence in Spain.
- Be at least 16 years old.
- Being in possession of the valid degree in Spain that is indicated according to Spanish legislation.
- Not suffer any disease or be affected by physical or mental limitation that is incompatible with the performance of the corresponding functions.
- Not to be separated, by means of a disciplinary file from the service of any of the public administrations, nor to be disabled for the performance of public functions.

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CONDITIONS:

- Gross monthly salary: €2,315.14 in 12 payments.
- Planned start date: immediate incorporation, from January 1, 2022. The contract will take effect as soon as the availability of the activity allows it.
- Duration and estimated date end of planned work: December 31, 2022.
- Full time position.

EVALUATION COMMITTEE:

Candidate's applications will be assessed by an Evaluation Committee. This Committee will be made up of the scientific head of the Project, who will chair it, the scientific members of the project research team assigned to CITMAga, a researcher assigned to the Center who does not participate in the project and the secretary, who will be appointed by the Center. Final Evaluation Committee will be made public once the assessment of candidates is done, in the same document as selected candidates are announced.

WORKPLACE: Centro de Investigación e Tecnoloxía Matemática de Galicia (CITMAga), Campus Vida, Santiago de Compostela.

SUBMISSION OF APPLICATIONS:

People interested in this contract must send their applications before December 7th, 2021, 23:59 Spanish official time. Application should include a cover letter summarizing the applicant's career (general training and experience to be assessed, as well as additional merits referred to in the call), a curriculum (with mobile phone and email), and the academic title and transcript of degree, master and/or doctorate; and the "work life" (which proves the professional merits that appear in the curriculum vitae). All documentation must be sent to the following email address: itmati@itmati.com indicating in the subject the job vacancy reference and profile CITMAga-OT-14/2021/P1 or CITMAga-OT-14/2021-P2. The receipt of requests will be confirmed by email. Candidates who are invited to the interview phase must provide original documentation of the merits provided.

DEADLINES AND RESOLUTION:

Reception of applications: until December 7th, 2021, at 23:59 p.m, Madrid local time.

Evaluation of applications and personal interviews: week of December 13, 2021.

Resolution of the call: second half of December 2021.

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WAITING LIST

After the resolution of this call, candidates who have not been selected but meet the requirements laid down therein will automatically become part of a “waiting list” for this call in order of merit, according to the requirements established in the call. This “waiting list” will be published the same day as the resolution of the call, and it remains in force during the full project lifetime. If it deems appropriate, the Evaluation Committee of this call may make use of the “waiting list” provided that any researcher leaves the Project voluntarily, and for the entire Project duration.

CHARACTERISTICS OF CONTRACTS

The personal hired through this call will be exclusively dedicated to carrying out the activities of the project that originate the call, so the duration of the contract is directly linked to the life of the specific project / activity, as well as to the existence of concrete financing derived from it. The contracts will have a temporary work character, and it will be carried out under the modality of work contract or service determined /for the realization of a specific project /activity within the framework of the Spanish Statute of Workers. The amounts contemplated may suffer the variations established by the norms applicable to them or by unexpected causes not initially foreseen.

NATURE OF CONTRACTS

The hiring does not imply any commitment regarding the subsequent incorporation to the CITMAga staff.

SUBSIDIARY RESPONSABILITIES

People hired must maintain the confidentiality of the activity they carry out, as well as keep secrecy of all issues and issues inherent to it and of which they are aware.

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INCOMPATIBILITIES

The contracts subject to the call are subject, as far as their incompatibility regime, to the provisions of Law 53/1984, of December 26, on incompatibilities of the Personnel in the Service of Public Administrations.

All information regarding this call, as well as the resolution of this, will be published on the ITMATI website: <http://www.itmati.com/>.

Rosa María Crujeiras Casais
Acting Scientific Director of CITMAga.

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Asinante/Firmante/Signer: ROSA MARIA CRUJEIRAS CASAIS, NIF 52931780V, 25/11/2021 14:16:47.

CSV: 6DEF-DA09-4203-8E85