

**Public notice No. 119/2020** - Doctor Paulo Jorge dos Santos Gonçalves Ferreira, Full Professor and Rector of the University of Aveiro, hereby announces that for a period of **thirty** business days starting on the first business day immediately after the publication of the present notice in the *Diário da República*, an international public Competition is opened for the appointment to 1 (one) position as Associate Professor in the subject area of Mathematics with expertise in the subareas of Statistics and Probability or Optimization and Operational Research or Systems Theory and Control.

The present Competition, opened on November 7<sup>th</sup>, 2019, as ordered by the Rector of the University of Aveiro, is governed by the provisions of Article 37 and following articles in the Statute of the University Teaching Career, hereinafter referred to as SUTC, approved by Decree-Law No. 448/79 of 13<sup>th</sup> of November, with the new wording introduced by Decree-Law No. 205/2009 of 31<sup>st</sup> of August, amended by Law No. 8/2010 of 13<sup>th</sup> of May and by the applicable legislation and norms, namely the Competition Rules for the Employment of Teaching Staff Under Contract to Exercise Public Functions, hereinafter referred to as Regulation, published in the *Diário da República*, 2nd series, No. 222, on 16<sup>th</sup> of November of 2010.

1 – Admission requirements:

1.1 — Applicants to the Competition must be holders of a PhD degree for over five years according to the article 41 of the SUTC.

1.2 — Applicants with qualifications obtained abroad must provide proof of recognition, equivalence or registration of a PhD degree, under the applicable law. This formality must be fulfilled by the date of expiry of the application deadline.

2 — Formalising the applications:

The applications are formalised by addressing them to the Rector of the University of Aveiro, under the following conditions:

2.1 – The application should include, among others, the following elements:

- a) Competition identification;
- b) Applicant's identification: full name, birth date, nationality, mailing address and email;
- c) Identification of the position and institution where the applicant is presently working, when applicable;
- d) Identification of degrees held by the applicant;
- e) Statement that the applicant declares the elements or facts contained in the application to be true.

2.2 — The application includes the following documentation:

- a) Copy of the applicant's *curriculum vitae* containing all of the pertinent information for the assessment of the applicant considering the items of evaluation of point 4 of the present notice, recommending that it be organized according to the assessment criteria detailed in point 5;
- b) Copies of papers selected by the applicant as being most representative of their *curriculum vitae*, no more than five, including the justification of the selection;
- c) Content report, teaching methods and bibliography in a curricular unit of the subareas where the competition is open;
- d) Scientific-pedagogical project: document enabling sustain a future Charter of mission and that must include a proposal of activities that the candidate intends to develop during the first five years of his activity as an Associate Professor, explaining how he can contribute to the progress and development of the disciplinary subareas in the scientific, pedagogical and cooperation with society aspects;
- e) Document that objectively highlights the number of citations of publications listed in the curriculum and explanation of the method used to count the citations with enough detail so that the jury is able to reproduce the procedure in accordance with point 5.1.1.;
- f) Declaration by the applicant under oath ensuring that he/she is not inhibited from exercising public functions or forbidden from performing the duties for which he/she is applying, and have the physical strength and psychological profile required to carry out these functions and has complied with the mandatory vaccination laws;
- g) Any other elements that the applicant deems relevant.

2.3 – The *curriculum vitae* should contain:

- a) Full identification;
- b) Contacts: address, telephone number and email;
- c) Position, group or subject, service time as staff member and the name of the University or Polytechnic Institution to which the applicant belongs, whenever applicable;
- d) Specialisation adequate to one of the subareas in which the Competition was opened;
- e) Copy of the certificate with the respective mark or grade or other document that is legally recognised for the same purpose;
- f) Documents supporting all of the elements referred to in subsections c), d) and e) of point 2.3.

2.4 — The applicants from the University of Aveiro are not required to present proof of their individual process.

2.5 – Submission of the application:

2.5.1 — The application may be submitted in Portuguese or in English, via email, to the Human Resources Department of the University of Aveiro ([sgrhf-concursos@ua.pt](mailto:sgrhf-concursos@ua.pt)) by the deadline stipulated in this Notice.

2.5.2 — The applicants are required to present a “message sent” confirmation as proof of the application submission.

2.5.3 — Instructions for the submission of applications, in digital format, are available in the area of Recruitment and Job area Human Resources at <https://www.ua.pt/sgrhf/PageText.aspx?id=15031>.

2.6 — The failure to comply with the deadline set, as well as the failure or the late entry of documents referred to in subsections a) to f) of No. 2.2, will result in the exclusion of the application.

2.7 — Under the terms of subsection a) of No. 4 of article 50 of the SUTC, the jury may, whenever they see fit, request that the applicants, within a predetermined time period, hand in additional documents in support of the *curriculum vitae*.

2.8 — The jury can understand whenever necessary, the holding of public hearings of the candidates admitted.

2.8.1 — At the first meeting, the jury will deliberate on the need to hold public hearings for all the candidates who obtain absolute merit approval, with the exclusive aim of clarifying the information contained in the candidates' application in accordance with point b) of paragraph 4 of article 50 of the ECDU.

2.8.2 — If it is necessary to hold these public hearings, they will take place before the second meeting of the jury, and all the candidates will be informed, at least 5 days in advance, of when and where these public hearings will take place.

2.8.3 — The public hearings referred to in the previous point may be held by teleconference.

### 3 – Competition Jury:

3.1 — The Competition jury has the following composition:

President: Doctor Paulo Jorge dos Santos Gonçalves Ferreira, Rector of the University of Aveiro.

Jury members:

Doctor Jorge Orestes Lasbarrères Cerdeira, Full Professor at Department of Mathematics, NOVA University of Lisbon;

Doctor João Manuel Lage de Miranda Lemos, Full Professor at Instituto Superior Técnico, University of Lisbon;

Doctor Maria Manuela Costa Neves Figueiredo, Full Professor at Instituto Superior de Agronomia, University of Lisbon;

Doctor António Manuel Rosa Pereira Caetano, Full Professor at University of Aveiro;

Doctor Helmuth Robert Malonek, Full Professor at University of Aveiro.

3.2 — The deliberations are held by roll-call vote requiring the absolute majority of the votes of the members of the jury present at the meeting; abstentions are not allowed.

#### 4 — Admission and exclusion of applications:

##### 4.1 — Approval on absolute merit:

The admission of candidates is subject to your approval on merit, based on the merits of the overall curriculum candidates in the disciplinary subareas of competition, taking into account, cumulatively, and compliance with at least one of the following requirements:

4.1.1 - The applicant is the author or co-author of at least 20 articles in the subject area that the competition is open, indexed in the Science Citation Index Expanded of the Web of Science from Clarivate Analytics where document type = article or document type = review, or in the SCI Verse Scopus or in Zentralblatt MATH or in MathSciNet, with the same characteristics;

or

4.1.2 — Have obtained a total of at least 50 citations (excluding self-citations) in one of databases referred to in 4.1.1, to the scientific works produced in the disciplinary area for which the contest is open;

or

4.1.3 — Have an index h, according to SCOPUS or Web of Science from Clarivate Analytics, of at least 5 relative to the scientific works produced in the disciplinary area for which the competition is open.

4.2 — Candidates must prove that they meet the above requirements (4.1.1 to 4.1.3), indicating the key to be used in the search for Web of Science from Clarivate Analytics or SCI Verse of Scopus, or Zentralblatt MATH or MathSciNet, or including in their CV listing of the same databases that confirms it, as well as the articles determining the h-index referred to in point 4.1.3.

##### 4.3 — Methods and items for assessment:

4.3.1 — The method of selection is the assessment of the curriculum which aims to assess the applicant's scientific performance, pedagogic skills and performance in other activities relevant to the mission of higher education institutions.

4.3.2 — In the assessment of the curriculum the following items are mandatorily considered and pondered in accordance with the requirements of the functions corresponding to the position to be filled with the present competition:

- a) The scientific performance of the applicant in the subject subareas that the Competition is open;
- b) The pedagogic capacity of the applicant in the subject subareas that the Competition is open;
- c) The Knowledge transfer;
- d) The University management;
- e) Scientific-pedagogical project.

4.3.3 — In assessing the items referred to in 4.3.2 (a), (b), (c) and (d), the extent of the scientific curriculum of the candidates should be taken into account and the activity developed in the last five 5 (five) years and will represent 50% of the assessment in each of these areas.

## 5 – Assessment criteria:

In applying the items of assessment mentioned in the previous point the following criteria are assessed, to which the indicated weighting factors are attributed.

### 5.1 — Criteria for assessing Scientific Performance

5.1.1 — Scientific production. Quality and quantity of scientific production in the subareas that the competition is open (books, magazine articles, communications in congresses) expressed by the number and type of publications, and the recognition given by the scientific community (the quality of the location where it has been published and the references made by other authors).

5.1.2 — Coordination and implementation of scientific projects. Quality and quantity of scientific projects in which the applicant participated within the subject subareas of the Competition; whether they are financed through public funds of national or international agencies or by enterprises. The assessment of the quality should take into account the level of funding obtained, the degree of demand of the funding competition, the expert evaluations of the completed projects, in particular, if they led to the development of products or services.

5.1.3 — Intervention in scientific community. It should be assessed the capacity to intervene in scientific community, particularly by organising events, being (co-)editor of magazines, participation in the evaluation of projects and articles, invitations to deliver lectures, participation in academic juries and advisory activities as well as being recognised through awards or other distinctions and respective impact.

5.1.4 — Constitution of research teams and orientation of academic work of post-doctoral and doctoral students.

### 5.2 — Criteria for evaluation of Pedagogic Capacity

5.2.1 — Coordination of pedagogic projects. Coordination and promotion of new educational projects (e.g. development of new programmes and curricular units, creation and coordination of new courses or study programmes, etc.) or reform and improvement of existing projects (e.g. redesigning existing curricular programmes and curricular units, participating in the reorganisation of courses or programmes of existing studies) as well as implementing projects with an impact on the teaching/learning process.

5.2.2 — Production of pedagogic material. Quality and quantity of pedagogic material produced by the applicant as well as pedagogic publications in journals or prestigious international conferences.

5.2.3 — Teaching activity. Quality of teaching activity performed by the applicant using, whenever possible, objective methods based on extensive collections of opinion (educational surveys).

5.2.4 — Orientation of students in final bachelor's and master's dissertations.

5.2.5 — Report of course unit. In the evaluation of scientific and pedagogical value of the report, some aspects will be considered: the clarity of its structure and the quality of presentation; the timeliness of the content and suitability of the program, including comparison with similar subjects in other national and international universities; the framework presented on the subject and the proposed working method; the recommended bibliography and the quality of comments produced about it, and other complementary elements considered relevant.

### 5.3 — Criteria for evaluation the Knowledge Transfer

a) Patents, registration and ownership of rights, elaboration of technical regulation and legislation. Patent authorship and co-authorship, records of ownership of intellectual property rights regarding software, mathematical methods and rules of mental activity. Participation in standardization committees and in the drafting of legislative projects and technical regulation. The evaluation of this criterion should also take into account the resulting economic added-value of patents and intellectual property rights.

b) Consulting services, tests and measurements. Participation in consulting activities, tests and measurements involving private and/or public sector. Participation as a teacher in vocational training courses or technological expertise directed at companies or the public sector. The evaluation of this criterion should also take into account the economic added-value of research results achieved, measured by the contracts of technology transfer and development that have resulted and contribution to the creation of spin-off companies.

c) Dissemination of science and technology. Participation in initiatives to disseminate scientific and technological knowledge under the auspices of the scientific community (for example organisation of congresses and conferences not considered in point 5.1.3) and addressed to diverse audiences. Publications to disseminate science and technology.

### 5.4 — Criteria for evaluation of University Management

5.4.1 — Applicant's participation in scientific, pedagogical or institutional management activities and participation in academic juries outside his own institution.

### 5.5 — Criteria for evaluation of the Scientific-academic project

5.5.1 — Analysis of Scientific-academic project: Consider the clarity and quality of the exhibition, the actuality of the content and other complementary elements considered, with special attention to the potential contribution to the educational and scientific development of the subareas to which is opened the contest.

5.6 — The weighing for the above-mentioned criteria are presented in the following table:

**Table – Weights for the assessment criteria**

Items	Weight	Criteria	Weight
Scientific Performance	P1=0,5	Scientific production (C11)	P11=0,5
		Coordination and implementation of scientific projects (C12)	P12=0,2
		Intervention in scientific community (C13)	P13=0,2
		Constitution of research teams and orientation of academic work of post-doctoral and doctoral students (C14)	P14=0,1
Pedagogic capacity	P2=0,3	Coordination of pedagogic projects (C21)	P21=0,1
		Production of pedagogic material (C22)	P22=0,2
		Teaching activity (C23)	P23=0,4
		Orientation of students in final bachelor's and master's dissertations (C24)	P24=0,1
		Report of course unit (C25)	P25=0,2
Knowledge Transfer	P3=0,05	Knowledge transfer, or industrial activities, and dissemination or science management activities (C31)	P31=1,0
University Management	P4=0,1	University management activities (C41)	P41=1,0
Scientific-academic project	P5=0,05	Scientific-academic project (C51)	P51=1,0

## 6 – Assessment and selection:

6.1 — After the admission of the application to the Competition, the jury will begin the processes of analysis of the applications, taking into account the items and criteria set out in this notice.

6.2 — In the first meeting, which may take place by teleconference as decided by the jury president and after examination and admission of applications, the jury begins to decide which applicants pass to the next phase on absolute merit. To this purpose, each member of the jury proposes, which applications do not meet the requirements at both a scientific and pedagogic level as established by the Notice for the present Competition. After all jury members have submitted their proposals to the President of the jury, the jury votes on each application, for which rejection is proposed, and no abstentions are allowed; an application is rejected on absolute merit if obtains a majority of votes favourable to the rejection among the members of the jury present at the meeting. Each application will be voted only once. Other proposals, which eliminate the same application

will not be voted on. The final decision on each proposal, as well as the number of votes collected by each of them, and their bases, are an integral part of the minutes.

6.3 — In the case of an application not receiving absolute approval, the jury proceeds to holding a hearing with the applicant excluded, who may contest within 10 days under article 20 of the Regulation.

6.4 — The jury then assesses those candidates approved according to absolute merit, considering the criteria and parameters of assessment as well as the ranking factors in this notice.

6.4.1 — Each member of the jury applies a value, on the scale of 0-100, for each criteria or aspects regarding each applicant.

6.4.2 — The final result is expressed on a numerical scale of 0-100 and it is calculated by weighing each criterion with the corresponding weight which provides each item with a score. Each item has its own weight which is used to calculate the final score.

Expressed as a formula, the final result (FR) is calculated as follows:

$$FR = P1 * (C11 * P11 + C12 * P12 + C13 * P13 + C14 * P14) + P2 * (C21 * P21 + C22 * P22 + C23 * P23 + C24 * P24 + C25 * P25) + P3 * (C31 * P31) + P4 * (C41 * P41) + P5 * (C51 * P51)$$

7 — Voting methodology and ranking:

7.1 — The ordering of candidates should be founded on the assessment made based on strands and criteria of assessment and corresponding weighing factors listed in this Notice.

7.2 — Before voting, each member of the jury presents a written document, that will be attached to the minutes of the meeting, with the order of the applicants, duly founded, taking into consideration the previous paragraph.

7.3 — On the various votes, each jury member should respect the order presented, no abstentions are allowed.

7.4 — The jury will use the following voting method in order to obtain an absolute majority in the final ranking of candidates:

The first vote is intended to determine the applicant to be put in first place. If an applicant receives more than half the votes of the members of the jury present at the meeting, he(she) will be placed in first place. If the applicant in first place is not determined, the voting will be repeated, but only among the candidates who received enough votes to be considered for first place, once the applicant least voted in the first round is removed. If there is more than one applicant in the position of least voted there will be another vote with only these applicants in order to determine who is to be eliminated. For this vote, the jury members vote for the applicant who has the lowest ranking, the applicant with the most votes is eliminated. If at this point there continues to be a tie among two or more applicants, the president of the jury will decide which of them is to be eliminated. Once this elimination is made, the jury returns to the first vote, but only with the remaining



candidates. The process is repeated until one applicant receives more than half the votes for first place. The process is repeated for second place and so on until an ordered list of all candidates is complete.

8 — Participation of interested parties and the decision:

8.1 — The applicants are notified of the final ranking in order to start the hearings of the interested parties conducted under the terms of the Administrative Procedure Code, applying the adaptations outlined in article 25 of the Regulation.

8.2 — Once the interested parties have had their hearings, the jury assesses what their allegations and approves the final ranking of the applicants.

9 — Deadline for final decision:

9.1 — Notwithstanding the following paragraph, the deadline for the delivery of the jury's final decision cannot surpass ninety consecutive days, starting from the deadline for submission of applications.

9.2 — The deadline mentioned in the previous subsection may be extended when there is a large number of applications and or when the particular complexity of the Competition justifies it.

10 — The present competition is exclusively destined to fill the position indicated and can be finished until the homologation of the final ranking list of candidates and expiring with the respective occupation of the job on offer.

11 — Publication of Competition notice

In addition to being published in Series 2 of the Diário da República the present notice is also published in:

- a) The public employment pool;
- b) The website of the Foundation for Science and Technology, I.P., in Portuguese and English;
- c) The website of the University of Aveiro, in Portuguese and English;
- d) In a national newspaper.

13 — In compliance with paragraph h) of Article 9 of the Constitution of the Portuguese Republic, the Government, as the employing entity, actively promotes a policy of equal opportunities between men and women in access to employment and professional advancement, scrupulously taking measures to avoid any form of discrimination.



November 7<sup>th</sup>, 2019 — The Rector, *Professor Doutor Paulo Jorge dos Santos Gonçalves Ferreira*.