

## PUBLIC NOTICE

It should be known that, before this Instituto Superior Técnico, University of Lisbon (hereinafter referred to as IST), and within 30 working days following the day after the publication of this notice in “Diário da República” (the Portuguese Official Gazette), an international documental recruitment competition is open, in the form of an employment contract in public functions, of one Assistant Professor, in the disciplinary field of Thermofluids and Energy Conversion Technologies from the Department of Mechanical Engineering of Instituto Superior Técnico, University of Lisbon, under articles 37.º to 51.º, 61.º and 62.º-A of the *Estatuto da Carreira Docente Universitária* (University Teaching Career Statute), republished by Decree-Law n.º 205/2009, from August 31<sup>st</sup> (hereinafter referred to as ECDU), and other applicable law, namely the *Regulamento Geral de Concursos para Recrutamento de Professores Catedráticos, Associados e Auxiliares da Universidade de Lisboa* (General Regulations for the Recruitment of Full Professors, Associate Professors and Assistant Professors of the University of Lisbon), approved by the Rector Order of February 16<sup>th</sup> 2015, published in the 2nd Series of Diário da República n.º 45, the joint order n.º 2307/2015 of March 5<sup>th</sup>, 2015 (hereinafter referred to as Regulations).

This competition is specially directed to PhD degree holders who have high research potential and capacities. The recruited candidate will sign a public functions contract of indefinite time, in the category for which the present competition is open, which includes five years of experimental period.

The joint order n.º 373/2000, of March 31<sup>st</sup>, of the Minister of State Reform and Public Administration and the Minister for Equality made compulsory the inclusion of the following reference in all civil service recruitment procedure notices: “In compliance with paragraph h) of article 9 of the Constitution, the Public Administration, as the employing entity, actively promotes a policy of equality of opportunities between men and women in access to employment and professional development, scrupulously providing for the prevention of any type of discrimination.” In this sense, the terms 'candidate', 'recruited', 'teacher' and the like are not used in this notice to refer to the gender of people.

Likewise, no candidate may be privileged, benefited, harmed or deprived of any right or exempt from any duty on the grounds, in particular, of descent, age, sexual orientation, marital status, family situation, economic status, education, origin or social status, genetic heritage, reduced working capacity, disability, chronic illness, nationality, ethnic origin or race, territory of origin, language, religion, political or ideological beliefs and trade union membership.

Open position within the strategic objectives of the LAETA Research Unit, and whose faculty member will be an integrated member of this Research Unit.

In compliance with articles 37.º to 51.º from ECDU and other applicable law, and with article 8.º from the General Regulations for the Recruitment of Full Professors, Associate Professors and Assistant Professors of the University of Lisbon, the following terms and conditions must hold:

### **I – Rector’s Order Authorization**

The opening of this recruitment procedure follows the University of Lisbon Rector’s Order, dated 27<sup>th</sup> March 2025, issued after the confirmation of budget provision and after the confirmation that the position, for which this recruitment procedure is open, is foreseen in the IST staff list, in which the functions to be carried out are defined as teaching and research activities that constitute the set of duties of Assistant Professors in the Department of Mechanical Engineering.

### **II – Place of work**

Instituto Superior Técnico  
Campus da Alameda, Av. Rovisco Pais, 1  
1049-001 Lisboa, Portugal  
and  
Campus Taguspark  
Av. Prof. Dr. Aníbal Cavaco Silva  
2744-016 Porto Salvo, Portugal

### **III – Admission requirements and grounds of exclusion**

III.1 - In compliance with article 41.º-A of ECDU, applicants to this recruitment procedure must hold a PhD degree.

III.2 – Chapter VI of the Regulations shall be applied in respect to the confirmation and fulfilment of the admission requirements and ground of exclusion of the candidates.

III.3 — The holders of a doctorate degree awarded by a foreign institution must demonstrate that the degree has been recognised according to the Decree-Law n.º 66/2018, from August 16<sup>th</sup>.

III.4 — The recognition of the doctorate degree, referred above, must be obtained before the deadline to sign the contract in case the candidate ranked in an eligible place has been awarded the doctorate degree by a foreign institution.

III.5 — The non-delivery of any document that supports the candidacy, in the stated deadline, determines the non-admission of the candidacy, which will be reviewed and decided by the President of Instituto Superior Técnico to taking a final decision on the merit.

### **IV – Absolute merit approval requirements**

IV.1 – Article 10.º from Chapter III of the Regulations shall be applied in respect to the absolute merit approval of the candidates.

IV.2 - The Jury will deliberate on the approval or rejection on absolute merit of a given candidate, through justified nominal voting, abstentions not being allowed.

IV.3 - It is considered approved in absolute merit the candidate that receives a favorable vote from more than half of the voting members of the Jury.

IV.4 – A vote against the approval in absolute merit of a candidate must be based on one or more of the following circumstances:

a) the knowledge domain and/or field of the PhD which the candidate holds is not academically adequate for the, minimally adequate, performance of the teaching duties in the disciplinary field related to this recruitment procedure and the candidate's academic background fail to compensate for this fact; and/or

b) the relevance, quality, and impact of the *curriculum vitae* of the candidate, and the academic contributions and of highest impact selected by the candidate, do not demonstrate the minimum standards, to perform, in a minimally adequate way, the duties of Assistant Professors in the disciplinary field related to this recruitment; and/or

c) the list of five publications presented in the document with the most relevant academic contributions in the last five years mentioned in paragraph b) of IX.2 of this notice, which are considered by the candidate as the most representatives to the development and evolution of the disciplinary field of this competition, are not sufficient to demonstrate that the candidate has the necessary capabilities to have a minimally adequate performance on the execution of the regular duties of Assistant Professors in the disciplinary field of this competition; and/or

d) the candidate has an "H-index", obtained through Scopus, in the disciplinary field of this recruitment procedure that is lower than 7; and/or

e) the candidate has not published, in the last five years, at least five publications classified as Q1 or Q2 in Scopus of impact relevant to the subject field of the competition; and/or

f) the scientific and pedagogical project, requested in IX.2.c) and specified in V.4.e), elaborated by the candidate is clearly insufficient, presenting insufficiencies or severe incorrectness enough to illustrate the lack of capacities of the candidate to fulfil the set of functional duties required by Assistant Professors in the disciplinary field of this recruitment procedure, or not being supported by previous work from the candidate.

## **V – Evaluation parameters and relative merit ranking, respective percentage and final valuation**

V.1 - This recruitment procedure aims to evaluate the candidates' abilities and performance concerning the different aspects that constitute the set of duties to be performed, in accordance with article 4.º of ECDU, as a result of their recruitment in case they are hired. According to article 4.º of ECDU, faculty members are required to:

- a) Carry out scientific research, cultural creation or technology development activities;
- b) Carry out the teaching duties assigned to them and guide and supervise the students;
- c) Participate in activities related to university representation, scientific disclosure and economic and social knowledge transfer;
- d) Participate in management activities within the university;
- e) Participate in other duties assigned by the competent bodies in the scope of the regular activities of a faculty member.

V.2 - The selection will be made through the curriculum's evaluation method, which, according to the faculty members' general duties established in article 4.º of ECDU, is based on the following items:

- a) Teaching;
- b) Research;
- c) Activities related to university representation, scientific disclosure and economic and social knowledge transfer, herewith defined as Knowledge Transfer;
- d) Management activities within the university;
- e) Scientific and pedagogical project.

The subjects indicated in sub-paragraphs c) and d) must be considered within the scope of sub-paragraph c) according the mentioned in nº. 6 of article 50.º of the ECDU, relating to other activities relevant to the mission of the IES.

V.3 - The candidates' curriculum evaluation in each of the aforementioned areas must take into consideration the disciplinary field related to this recruitment procedure.

V.4 - The parameters to be considered in the candidates' curriculum evaluation in each of the areas defined in V.2, and the respective percentage for the final classification, are the following where special emphasis is given to the relevance, quality and impact of the *curriculum vitae* of the candidate, to the most relevant and with the highest impact academic contributions as selected by the candidate and identified in the document IX.2.b, in the last five years:

- a) Teaching (10 %):
  - i) Pedagogical material: parameter related to publications, computer applications and pedagogically relevant experimental prototypes developed, solely or in cooperation, by the candidate, considering their nature and impact on the national and international communities;
  - ii) Teaching activity: parameter related to the curricular units coordinated or taught by the candidate, considering their diversity, pedagogical practice and the student range;

iii) Innovation: parameter related to the candidate's ability to promote pedagogical activities, such as:

- presentation of grounded and coherent proposals for the creation of new curricular units or for the substantial reformulation of existing ones;
- creation or reinforcement of experimental and/or computational laboratory infrastructures used for teaching purposes;
- creation or restructuring of groups of curricular units or curricula;
- improvement of pedagogical practices;

iv) Student guidance and supervision: parameter related to the supervision of PhD, MSc and Undergraduate students' works considering the number, quality, scope and scientific/technological impact of the resulting publications, theses, dissertations and final- year projects, specially the prizes awarded to these works and their international relevance;

v) Non-academic Professional experience: parameter related to the role of relevant work developed outside of the academic environment in the scope of the disciplinary field of this competition.

b) Research (60 %):

i) Scientific publications: parameter related to books, book chapters, papers published in scientific journals and in international conferences proceedings, of which the candidate is author or co-author, considering:

- their nature;
- the impact factor;
- the number of citations;
- the technological level;
- the innovation;
- the diversity;
- the multidisciplinary;
- the international collaboration;
- the relevance of the contributions towards the improvement of the state of the art;
- the relevance of the works selected by the candidate as the most representative of their contribution towards the development and improvement of the disciplinary field related to this recruitment procedure.

ii) Coordination of and participation in scientific projects: parameter related to the participation in and coordination of scientific projects, subject to competitive tendering, by the candidate, considering:

- the territorial scope;
- the size;
- the technological level;
- the relevance of the contributions;
- the innovation;
- the diversity.

iii) Creation and reinforcement of laboratory infrastructures: parameter related to the participation in and coordination of activities by the candidate that resulted in the creation or reinforcement of experimental and/or computational laboratory infrastructures used for research purposes;

iv) Scientific activity development: parameter related to the demonstrated ability of the candidate to coordinate and lead research teams;

v) Recognition by the international scientific community: parameter related to:

- prizes awarded by scientific societies;
- editorial activities in international journals;
- participation in editorial committees of international journals;
- coordination of and participation in programme committees of scientific events;

- participation as invited speaker in scientific workshops or at universities;
  - participation as a member of scientific societies with competitive admission and other similar distinctions.
- c) Knowledge Transfer (5 %):
- i) Industrial Property: parameter related to the authorship and co-authorship of patents, models and industrial designs, considering their nature, territorial scope, technological level and the results achieved;
  - ii) Legislation and technical norms: parameter related to the participation in and elaboration of bills and norms considering their nature, territorial scope and technological level;
  - iii) Scientific and technological disclosure publications: parameter related to papers published in national journals and conferences and other scientific and technological disclosure publications, according to their professional and social impact;
  - iv) Rendering of services and consulting: parameter related to the participation in activities involving the business environment and the public sector, considering the type of participation, the dimension, the diversity, the technological intensity and the innovation;
  - v) Conception, planning and production of engineering, management or architectural projects: parameter related to the value of professional experiences relevant to the university's activities;
  - vi) Services provided to the scientific community and to society: parameter related to the participation in and coordination of activities involving scientific and technological disclosure considering their nature and the results achieved, namely aimed at:
    - the scientific community, specially through the organization of congresses and conferences;
    - the media;
    - businesses and the public sector.
  - vii) Professional training programs: parameter related to the participation in and coordination of technological training programs aimed at businesses and the public sector, considering their nature, technological intensity and the results achieved.
- d) Management activities within the university (5 %):
- i) Participation in universities or schools' bodies: parameter related to the nature and the responsibility resulting from the duties;
  - ii) Participation in the management of units or as course coordinator: parameter related to the duties, the scope of action and the results achieved by the candidate in the performance of management duties within departments and research units, coordination of courses, scientific areas or sections;
  - iii) Temporary duties and tasks: parameter related to the nature, the scope of action and the results achieved by the candidate within their participation in editorial activities for international journals, in the evaluation of scientific programs, in academic degrees' examination boards, in competition juries, and their performance of temporary duties and tasks assigned by the competent bodies, among others;
  - iv) Other duties: parameter related to the performance of duties defined in article 73.º of the University Teaching Career Statutes (ECDU) and other duties within national and international scientific organizations.
- e) Scientific and Pedagogical Project (20 %): parameter that evaluates a scientific and pedagogical project proposed by the candidate on the disciplinary field related to this recruitment procedure.

V.5 – Once finally identified the candidates approved in absolute merit, based on the previous conditions expressed in IV, the Jury will proceed to the final valuation

and ranking of the candidates, following the procedure established in article 20.º of the Regulations, where the preferential parameters described in VI can be used as qualification criteria for each of the parameters described in V.4 when establishing the list mentioned in n.º 3 of article 20.º of the Regulations.

## **VI – Preferential parameters**

It is a preferential parameter that the candidate has a *curriculum vitae* that is adequate to the disciplinary field of this competition, where special emphasis is given to the candidates' scientific production in the last five years.

It is a preferential parameter the contribution given to the development and evolution of the disciplinary field of this competition, with a focus on fluid mechanics, with emphasis on computational fluid dynamics and turbulence modelling for variable density flows.

## **VII - Public hearings**

VII.1 - At the first meeting the Jury will deliberate about the need for a public hearing of the candidates that have been approved in absolute merit, with the exclusive aim of clarifying the information contained in the documents submitted by candidates, according to paragraph b), n.º 4, article 50.º of the ECDU.

VII.2 - If the Jury decides to hold the aforementioned public hearings, those will have to take place between the 20<sup>th</sup> day and the 50<sup>th</sup> day following the date of admission on absolute merit of the candidates, and all candidates will be informed of the date and place of the public hearings at least five days in advance.

VII.3 - The aforementioned public hearings can be done by videoconference, and the Jury must guarantee that they are done in equal circumstances to all candidates.

VII.4 - The Jury may also decide to request additional documents, in compliance with paragraph a), n.º 4, article 50.º of ECDU, with the aim of clarifying the information contained in the *curriculum vitae* of a given candidate.

## **VIII – Submission of applications**

VIII.1 - Applications must be submitted until the 30<sup>th</sup> working day from the date of publication of this notice in the *Diário da República*.

VIII.2 - The application documents must be submitted to the particular electronic address related to this public notice provided at the Human Resources of IST web page:

<http://drh.tecnico.ulisboa.pt/job-opportunities/>

VIII.3 - The non-delivery of any document that supports the candidacy, in the stated deadline, determines the non-admission of the candidacy, which will be reviewed and decided by the President of Instituto Superior Técnico to taking a final decision on the merit.

## **IX – Application Supporting Documents**

IX.1 - The application must be accompanied by their respective application form that can be found at the Human Resources of IST web page:

<http://drh.tecnico.ulisboa.pt/job-opportunities/>

where it should be explicitly referred the candidate's agreement that all communications and notifications in the scope of this competition must be made through the specific electronic mail address indicated by the candidate.

IX.2 - The application must be accompanied by the following documents:

a) Document in PDF format with the candidate's *curriculum vitae* that should include:

i) the teaching, research, knowledge transfer and management activities within the university that are relevant for this competition, identifying the activities developed in the scope of the different aspects that, according to article 4.º of ECDU, constitute the set of duties to be performed by Assistant Professors, in accordance with the evaluation parameters and criteria mentioned in V.4 of this notice and which are considered relevant to the disciplinary field of this recruitment procedure; the candidate should structure the *curriculum vitae* such that it enables an easy and complete identification of its own contribution to the items listed in V.4, demonstrating the fulfillment of the quantitative criteria listed in IV.4.

ii) the Scopus ID which enables the identification of the publications list, their respective number of citations, the H-index according to the source Scopus..

b) Document with the five most relevant academic contributions in the last five years, presented in accordance with the rules found in: <http://drh.tecnico.ulisboa.pt/job-opportunities/>.

c) Document in PDF format with the scientific and pedagogical project proposed by the candidate on the disciplinary field to this recruitment procedure, according to paragraph e) from V.4 of this notice, presented in accordance with the rules found in: <http://drh.tecnico.ulisboa.pt/job-opportunities/>.

d) PDF version of all scientific publications mentioned in the document described on the above paragraph b) from IX.2 of this notice;

e) Other works that the candidate might consider relevant for the Jury to evaluate;

f) A declaration on honour that testifies the candidate's fulfilment of the legal requirements for admission to this recruitment procedure.

## **X - Language**

Considering the participation of jury members who do not have proficiency in the Portuguese language:

X.1 - The application form is filled in Portuguese, the curriculum vitae and other documents are presented in English;

X.2 - The documentation related to the pronunciation during the preliminary hearing of candidates and complaints to be reviewed by the Jury must be necessarily written in English.

## **XI – Composition of the Jury**

According to ECDU (articles 45.º and 46.º) and the "Regulamento" (article 14.º), the jury is composed of the following members:

President: President of the Instituto Superior Técnico, Professor Rogério Anacleto Cordeiro Colaço, by delegation of powers from the Rector, with the option of sub-delegation, under the terms set out in Order No. 912/2023, of January 18.

Juror:

**Dottore di Ricerca** Carlo Massimo Casciola, **Professore ordinario**, Faculty of Civil and Industrial Engineering, Sapienza University of Rome

Doctor Susan J. Gaskin, Professor, Faculty of Engineering, McGill University

Doutor Fernando Manuel Coutinho Tavares de Pinho, Professor Catedrático,  
Departamento de Engenharia Mecânica, Faculdade de Engenharia,  
Universidade do Porto

Doutor Pedro Jorge Martins Coelho, Professor Catedrático, Departamento de  
Engenharia Mecânica, Instituto Superior Técnico, Universidade de Lisboa

Doutor Carlos Frederico Neves Bettencourt da Silva, Professor Catedrático,  
Departamento de Engenharia Mecânica, Instituto Superior Técnico,  
Universidade de Lisboa



## **Annex**

### **Declaration on honour**

*I, (name), candidate to the recruitment procedure open to fulfil one position of Assistant Professor available at the staff list of Instituto Superior Técnico, Universidade de Lisboa, hereby declare on my word of honour that I fulfil the requisites present in article 17º from the "Lei Geral do Trabalho em Funções Públicas" (General Law for Labour Work on Public Functions), approved by the Law n.º 35/2014 from 20<sup>th</sup> of June, as well the requisites present in article 41.º-A from the "Estatuto da Carreira Docente Universitária" (University Teaching Career Statutes), republished in the Decree-Law n.º 205/2009 from 31<sup>st</sup> of August, fulfil all the requisites for admission to this recruitment procedure that are predicted by the Law, in particular those expressed in Chapter IV of the "Estatuto da Carreira Docente Universitária" (University Teaching Career Statutes), the Regulations, especially the "Regulamento Geral de Concursos para Recrutamento de Professores Catedráticos, Associados e Auxiliares da Universidade de Lisboa" (General Regulations for the Recruitment of Full Professors, Associate Professors and Assistant Professors of the University of Lisbon) and in this notice.*

*I also declare that all statements herein were made with the knowledge that wilful false statements will result in my exclusion from this recruitment procedure, notwithstanding the communication of such statements to the competent authorities for criminal procedures.*

*I further declare that I understand that, in case I am placed in an eligible position within the final ranking list of the candidates, I must comply with the deadline of ten days as of the date of notification of the final ranking list to provide Instituto Superior Técnico, Universidade de Lisboa, with the supporting documents that make proof of the fact that I fulfil the admission requirements defined for this recruitment procedure.*

*I further declare that I understand that the failure to provide the supporting documents referred to in the previous paragraph, for reasons within my control, will result in my exclusion from this recruitment procedure.*

\_\_\_\_\_(place),\_\_\_\_\_(date).

\_\_\_\_\_  
(signature)

Instituto Superior Técnico, 28th of March 2025, The President, Professor Doctor Rogério Anacleto Cordeiro Colaço