Selection call for the awarding of n. 2 research grants for the coverage of n. 2 additional places in the context of the Doctoral research course in "Engineering of Complex Systems" for the academic year 2023/2024 – 39th cycle, under the research project titled “Investigation and Control of Hydrogen flames Across the scales_ICHAruS” - CUP F83C2300089006, within the HORIZON-MSCA-2022-DN-01 call.

"Pursuant to Article 22 of Law No. 240/2010, as amended by Article 14, paragraph 6-septies of Decree-Law No. 36/2022, with modifications by Law No. 79 of June 29, 2022."

Article 1

Fellowships put up for competition

A public selection procedure is hereby announced, based on qualifications and an interview, pursuant to article 11 of the current University Regulations, for the awarding of research grants as per article 22 of the law of December 30, 2010, no. 240, for the allocation of n. 2 research grants covering n. 2 additional PhD positions within the Doctoral research course in “Engineering of Complex Systems" for the academic year 2023/2024 – 39th cycle, funded by the research project titled “Investigation and Control of Hydrogen flames Across the scales_ICHAruS” - CUP F83C2300089006, as part of the HORIZON-MSCA-2022-DN-01 call, pursuant to the Rector's Decree no. 328 of April 16, 2024, establishing additional positions (hereinafter referred to as research grant), at the Department of Engineering for Innovation of the University of Salento.

The location, duration, amount, scientific-disciplinary sector, scientific supervisor, facilities available to the winner, and the program, for each research grant position, are specified below:

<table>
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<tr>
<th>DEPARTMENT</th>
<th>DEPARTMENT OF ENGINEERING FOR INNOVATION</th>
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<tbody>
<tr>
<td>DURATION</td>
<td>36 months</td>
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</table>
| AMOUNT PER FELLOWSHIP, ALL-INCLUSIVE OF EXPENSES BORNE BY THE ADMINISTRATION | In compliance with the guidelines set out in the 'Horizon MSCA Financial Guide' and by the Grant Agreement no. 101120321 – Annex II of the ICHAruS Project – MSCA, the amount of the grant is determined as follows:

  **Living Allowance:** The gross monthly amount is €3,311.60, for a total of €119,217.60, inclusive of all charges borne by the University for the entire duration of 36 months.

  In addition to the aforementioned amount, in accordance with the provisions of the Grant Agreement of the ICHAruS Project – MSCA, the grant holder is entitled to:

  **Mobility allowance:** €600.00 gross per month, for a total of €21,600, inclusive of all charges borne by the University for the full duration of 36 months.

  **Family allowance** (if applicable according to the rules set out in the MSCA Call, the 'Horizon MSCA Financial Guide'...
guidelines, and the Project Grant Agreement): €660.00 gross per month, for a total of €23,760.00, inclusive of all charges borne by the University for the entire duration of 36 months, to be granted only if the winner has family obligations.

In addition to the aforementioned amounts, the MSCA Researcher will be entitled to reimbursement of all expenses incurred for research and training activities provided for in the project, specifically under category B.1 'Research, Training and Networking Costs', section B 'Institutional Costs' of the Budget specified in the Grant Agreement, subject to authorization by the scientific coordinator and as established by the University Regulations.

**Long-term leave allowance** (if applicable according to the rules set out in the MSCA Call, the 'Horizon MSCA Financial Guide' guidelines, and the Project Grant Agreement): to cover personnel costs incurred by the beneficiary in the event of the doctoral candidate's leave (e.g., maternity, paternity, parental leave, illness, or special leave) for a period exceeding 30 consecutive days.

**Special needs allowance** (if applicable according to the rules set out in the MSCA Call, the 'Horizon MSCA Financial Guide' guidelines, and the Project Grant Agreement): will be paid in the event that the doctoral candidate presents certified long-term physical or mental disabilities or impairments.

<table>
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<tr>
<th>SCIENTIFIC DISCIPLINARY SECTOR</th>
<th>ING-IND/07</th>
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<tbody>
<tr>
<td>FACILITY AVAILABLE</td>
<td>Department of Engineering for Innovation</td>
</tr>
</tbody>
</table>
| SCIENTIFIC SUPERVISOR         | Prof. Eng. Maria Grazia De Giorgi  
                             | Prof. Eng. Antonio Ficarella |
| RESEARCH PROGRAM TITLES       | **PROFILE A:** No. 1 research grant on the following research program: *Modeling of plasma-assisted combustion.* |
|                              | **PROFILE B:** n. 1 research grant on the following research program: *Experimental characterization of the stability of swirled flames in the presence of plasma discharges.* |

Within the framework of the MSCA Doctoral Network Project *Investigation and Control of Hydrogen flames Across the Scales (ICHArus)* - CUP No. F83C2300089006 -
The Marie Curie Researchers, winners of this selection, will be enrolled in the PhD course at the University of Salento in ‘Engineering of Complex Systems’ (academic year 2023/2024) – 39th cycle and must carry out the activities outlined in Annex 1 of the Project Grant Agreement, in accordance with the research program of the profiles mentioned in this call.

| DESCRIPTION OF THE RESEARCH PROGRAM AND PLANNED DETACHMENT PERIOD AT OTHER LOCATIONS | Research Program for Grant Profile A  
Title: Modeling of plasma assisted combustion  
The purpose of this project is to review and further develop the modeling tools that have been successfully applied to characterize plasma-assisted combustion, suitable for use with hydrogen fuel. A reduced-order plasma chemistry model will be implemented to estimate the temporal evolution of species and temperature in the plasma discharge. The model will integrate the ZDPlasKin plasma kinetics solver and the CHEMKIN chemical kinetics solver. The impact of the geometric and operational parameters of the plasma actuation (reduced electric field, frequency, and HV waveform) will be numerically analyzed and used for the design of the experimental test at UNILE.  
Planned secondment periods at other locations: 3 months at CERFACS to collaborate on plasma chemistry and 3 months at UNIFI for collaboration on plasma chemistry transfer in computational fluid dynamics (CFD). |
| Research Program for Grant Profile B:  
Title: Experimental Characterization of the Stability of Swirled Flames in the Presence of Plasma Discharges  
The main goal of this project is to study the effect of the electromagnetic field on swirling flames. In terms of experimental work, the project aims to develop active flame control devices based on plasma in swirling flames. This project will experimentally explore the interaction of sinusoidal plasma discharges and NPR with unstable swirling flames. The ability of plasma generated by NRP discharges and AC discharges to modify the response of pure hydrogen flames and/or H2-air mixtures under conditions of instability (lean blowout and... |
thermoacoustic) or to perturbations of the incoming flow will be studied using chemiluminescence analysis, PIV, and microphone signals. Advanced decomposition techniques will be used for high-speed imaging. Proper Orthogonal Decomposition (POD) will be used to identify the most persistent spatial structures, and Dynamic Mode Decomposition (DMD) will be used to identify relevant frequency modes.

**Planned secondment periods at other locations:** 3 months at TECHNISCHE UNIVERSITÄT BERLIN to collaborate for experimental activity.

The research grants mentioned in this selection call are funded under the project "Investigation and Control of Hydrogen flames Across the Scales_ICHAruS" - CUP No. F83C2300089006 - call HORIZON-MSCA-2022-DN-01, which is an MSCA (Marie Skłodowska-Curie Actions) Doctoral Network aimed at training young researchers to develop a series of innovative research activities in the field of active hydrogen combustion control using electric and electromagnetic fields.

ICHArUS was established to provide doctoral training in a collaboration between selected academic and industrial partners among the leading European manufacturers of gas turbines and jet engines. The purpose of this partnership is to understand the physical processes that drive the interaction between hydrogen flames and electromagnetic fields at all flow scales, in order to enable actively assisted combustion and identify key parameters that would allow the design of innovative, very low NOx emissions, quiet, and flashback-proof combustion devices for future gas engines and jet engines. The behavior of hydrogen flames under plasma discharges and electromagnetic conditioning offers the opportunity to significantly accelerate the path towards carbon-free energy and transportation sectors.

The research will be conducted as part of the doctoral course in Complex Systems Engineering - 39th cycle, to which the winners of this selection will be enrolled as PhD students covered by a research grant.

**Article 2**

**General Admission Requirements**

Graduates and scholars with a suitable professional scientific curriculum for conducting research activities can participate in this selection. Excluded from participation are permanent staff at universities, institutions, and
public research and experimental bodies, the National Agency for New Technologies, Energy and Sustainable Development (ENEA), and the Italian Space Agency (ASI), as well as institutions whose diploma of scientific improvement has been recognized as equivalent to the title of PhD under article 74, paragraph four of the decree of the President of the Republic of 11/07/1980, no. 382, and who possess the following admission requirements:

It should be considered that the **minimum qualification required for participation in the selection process is the possession of a Master's degree** (art. 3, paragraph 1, letter b, D.M. 22/10/2004, n. 270) **in one of the following degree classes or equivalent degrees and/or titles considered equivalent** (degree lasting no less than 4 years, as per the educational systems prior to D.M. 03/11/1999, n. 509 or **specialized degree** obtained under art. 3, paragraph 1, letter b, D.M. 03/11/2009, n. 509) based on the equivalence table between specialized degrees, master's degrees, and degrees according to the Interministerial Decree of 09.07.2009, published in the Official Gazette no. 223 of 07.10.2009:


The candidate must also possess the **following specific requirements necessary for accessing the selection**, as stipulated by the rules of the Marie Skłodowska-Curie (MSCA) Program of the European Union under which the ICHArUS project is funded:

- **not have earned a PhD degree**.
- **not have resided or carried out their main activity (work, study, etc.) in Italy for more than 12 months in the three years immediately preceding the recruitment date**, which is the date of signing the research grant contract (known as the mobility rule), unless it involves compulsory national service or a procedure to obtain refugee status under the Geneva Convention.

The selection committee, solely for the purpose of the selection for which it was established, recognizes the equivalence of the educational qualification (degree) obtained abroad.

In order for the selection committee to evaluate the foreign educational qualification not already declared equivalent to the corresponding Italian title based on international agreements, interested candidates must include the following documentation with their application:

- a certificate attesting to the foreign educational qualification, along with a translation in Italian or English. The translation must be signed by the candidate under their own responsibility.
- If awarded the research grant, candidates with a foreign educational qualification must submit, within 60 (sixty) days from the date of signing the contract, the following documentation:
  - translated and legalized qualifications by the competent Italian diplomatic or consular representations abroad;
  - a declaration of value of the foreign qualification issued by the competent diplomatic or consular representations abroad.
Those who have a relationship or kinship up to the fourth degree inclusive, with a professor belonging to the department that offers the research grant (Department of Innovation Engineering) or with the Rector, the General Director, or a member of the University's Board of Administration are not eligible to participate in the selection described in this announcement (pursuant to art. 18, paragraph 1, letter c) of Law No. 240/2010).

Admission requirements must be met by the application deadline. Excluded candidates will be individually notified of their exclusion via registered letter with acknowledgment of receipt or certified email (PEC) by the Department Director. Candidates admitted to the selection are considered admitted conditionally. The Administration may at any time, up until the approval of the ranking list, exclude a candidate from the competition due to the lack of the prescribed requirements. This Administration reserves the right to verify, for candidates who win this selection, the continuation of the specific requirements demanded by the Marie Skłodowska-Curie Program (MSCA) before signing the grant contracts. Should the reasons for exclusion as stipulated in this article be verified after the competition has been completed, the Department Director will decree the revocation of all rights resulting from participation in the competition through their own order.

**Article 3**

**Application and Submission Deadline**

The application for participation in the individual selection, drawn up on plain paper according to the template attached to this notice (Annex 1 - application form template) and accompanied by the required attached documents, must be addressed to the Director of the Department of Engineering for Innovation - University of Salento and must be sent, under penalty of exclusion, no later than thirty (30) days from the day following the date of publication of this selection notice in the Official Online Bulletin Board of the University of Salento, exclusively electronically using one of the following methods:

1. **Through personal email to the address protocollo.ingegneria@unisalento.it** by transmitting the signed application with a **digital signature** and all the declarations and documentation attached to it **signed with a digital signature** (the digital signature must be affixed to all related documents for which handwritten signature is required in a traditional setting). Documents sent from personal email accounts without a digital signature will be considered unsigned.

   **For foreign candidates** only, the application for participation in the competition, duly signed with a digital signature or handwritten signature and accompanied by a copy of an identity document of the signatory, can be sent from their personal email account to the address protocollo.ingegneria@unisalento.it.

   **or**

2. **Through certified email (PEC) to the address PEC of the Department**
dip.ingegneria.innovazione@cert-unile.it by transmitting the application and all the declarations and documentation attached to it signed with a digital signature or handwritten signature (in the latter case, along with a copy of the signatory's identity document). Documents without a signature will be considered unsigned.

When submitting the application via PEC, the attached files to the message must be in PDF format and the message along with the attachments must not exceed a total size of 50 megabytes. When submitting the application via personal email, the total size of the message and attachments must not exceed 25 megabytes.

Therefore, the candidate who needs to send attachments that exceed this limit must first send the application, specifying that the attachments or part of them will be sent in subsequent submissions within the deadline for the submission of applications and always via email. Static and non-directly modifiable formats must be used, devoid of macros or executable code, preferably pdf and tiff, or non-proprietary formats such as odf, txt, and xml, avoiding proprietary formats (doc, xls, etc.). Any failure in the delivery of certified email due to exceeding the maximum allowed message size will be solely attributable to the candidate.

If the deadline for submitting applications falls on a holiday, it is considered deferred to the next immediate non-holiday.

The Department of Engineering for Innovation assumes no responsibility for the dispersion of communications due to incorrect indication of the recipient by the candidate or failure or late communication of changes in the street address and PEC indicated in the application, nor for any telematic issues, or issues attributable to third parties, force majeure, or unforeseeable circumstances, nor for the non-return of the receipt notice in the case of PEC.

The transmission message of the application must include the subject of the selection: "Application for participation in the awarding of n. 2 research fellowships for the coverage of n. 2 additional positions within the framework of the PhD program in 'Engineering of Complex Systems' – 39th cycle under the Research Project MSCA ICHAruS - SSD ING-IND/07 - PROFILE___" and contain attached copies of the other documents required by this selection notice.

- Select the profile you intend to apply for
- Present, under penalty of exclusion, two separate applications if you intend to participate in both procedures.

This Administration will not consider any applications received after the deadline of this notice.

In the application, the candidate must declare, under their personal responsibility, the following in accordance with articles 46 and 47 of D.P.R. 28/12/2000, no. 445:

a) name, surname, and tax code. Married candidates must indicate, in order, the maiden/single surname, the first name, and surname of the spouse;
b) date and place of birth;
c) residence and citizenship held;
d) enjoyment of civil and political rights in the state of belonging;
e) if Italian citizen, the municipality in whose electoral lists they are registered or the reason for non-registration or cancellation from the same lists;
f) to have never received criminal convictions and to have no ongoing criminal proceedings. Otherwise, indicate the convictions received, the nature of the offense, the date of issuance of the judgment by the judicial authority (also to be indicated if amnesty, judicial pardon, amnesty, pardon, non-mention, etc., were granted) and even if nothing is recorded in the criminal record. Criminal proceedings must be indicated regardless of their nature;  
g) possession of the admission requirements referred to in article 2 of this notice;  
h) not to have a degree of relationship or affinity up to the fourth degree included or marriage with a professor belonging to the Department of Engineering for Innovation or with the Rector, the General Director, or a member of the Board of Directors of the University;  
i) not to be in any other situations of incompatibility provided for in article 6 of this public notice;  
j) not to have carried out, pursuant to Law 240/2010, activities with research fellowship contracts for a duration that, together with the duration of the contract referred to in this notice, exceeds 6 years;

The application must indicate the address that the candidate elects for the purposes of the competition, as well as a telephone number, email address, or PEC. Any change of street address and/or contact details must be promptly communicated to the Department.

Candidates with disabilities, pursuant to Law 05/02/1999, no. 104, must make an explicit request, properly documented, in relation to their disability, if they deem it necessary to use special aids.

The application for participation must be accompanied by the following documentation:

1. Photocopy of a valid identification document, with date and handwritten signature of the candidate, and a photocopy of the tax code;
2. Curriculum vitae of one's scientific and professional activity, dated and signed, provided in the form of a self-certification pursuant to D.P.R. 445/2000;
3. Self-certification of the degree obtained, indicating the grades obtained in individual exams and in the final degree exam as well as the date of graduation and the titles possessed in cases allowed by articles 46 and 47 of DPR 28/12/2000 no. 445, through statements replacing certifications or statements replacing the act of notoriety (Annex no. 2 to the application form template) or original diploma and/or certified copy of the original in the case of obtaining the degree abroad;
4. Original titles or certified copies accompanied by a specific declaration signed pursuant to articles 19 and 47 of DPR 28/12/2000 no. 445 attesting to their conformity (Annex no. 3 to the application form template).
5. List of titles, specialization diplomas, and attendance certificates for postgraduate courses, obtained in Italy or abroad; scholarships or research positions both in Italy and abroad; thesis; other titles that the candidate requests to be evaluated for the competition.
7. Publications that the candidate wishes to submit for evaluation by the Commission.

In accordance with articles 46 and 47 of D.P.R. 445/2000 and subsequent amendments, states, personal qualities, and facts are proven through statements replacing certifications or statements replacing the act of notoriety. The related certifications issued by Public Administrations are only usable in relations between private individuals (article 40 paragraph 1 D.P.R. 445/2000 and subsequent amendments). Therefore, certifications issued by Public
Administrations or managers of public services will not be accepted.

Additional titles may be submitted in original or certified copy accompanied by a specific declaration signed pursuant to articles 19 and 47 of DPR 28/12/2000 no. 445 attesting to their conformity, according to the attached template (Annex 3).

The Administration reserves the right to carry out appropriate checks on the truthfulness of the substitute declarations contained in the application for participation in the procedure and in the curriculum.

The following constitute **grounds for exclusion from the selection:**
- Submission of the application after the deadlines set out in article 3;
- Submission of the application by means other than those indicated in this notice;
- Failure to sign the application, in handwritten or digital signature form, in the aforementioned manner;
- Lack of possession of the admission requirements specified in article 2 of this notice;
- Failure to present, in the case of a foreign degree, the documentation indicated in article 2 of this notice;
- Failure to certify the absence of the incompatibility situations referred to in articles 2 and 3 of this notice.

**Article 4**
Selection methods

The selection process involves a comparative evaluation, for each profile specified in this call, of the qualifications and publications submitted by candidates relating to the research program and the scientific field/discipline of the fellowship. This is followed by an interview, which will be conducted in Italian with an assessment of English language proficiency, or in English with an assessment of Italian language proficiency for foreign candidates.

The Evaluation Committee, composed of highly qualified experts, including those external to the University of Salento, at no additional cost to the University's budget, is appointed by the Director of the Department of Innovation Engineering, after obtaining the opinion of the Department Council.

Once the Director of the Department has verified that the candidates who have applied meet the requirements specified in the call for applications, they forward the candidates' applications along with the required attachments to the Evaluation Committee.

During its first meeting, the Committee establishes and records in a separate report: the allocation of scores among the evaluative elements; the evaluation criteria and scoring system for qualifications and publications, as well as the minimum score required to be awarded the fellowship.

For the purpose of formulating the merit ranking related to the fellowships, the committee has 60 (sixty) points available for the evaluation of qualifications, publications, and the interview. Not less than 40 (forty) points must be allocated for the evaluation of qualifications and publications.

The evaluation of qualifications must precede the interview, and the results thereof must be communicated to the candidates before the oral examination takes place, by posting them on the Official Online Notice Board of the University of Salento and by publication on the University's and Department's websites.

The interview will be held on **14/06/2024 at 9:00 a.m. in telematic mode:** telematic platform and link will be communicated by posting a specific notice on the institutional website of the University of Salento.
HORIZON-MSCA-2022-DN-01  program under Grant Agreement No. 101120321

**www.unisalento.it**- under the “Bandi e Concorsi” section, and on the website of the Department of Innovation Engineering  [https://www.dii.unisalento.it/](https://www.dii.unisalento.it/) at least 3 days before the interview date.

Any changes to the schedule will be communicated by posting a specific notice on the institutional website of the University of Salento  [www.unisalento.it](http://www.unisalento.it)- under the “Bandi e Concorsi” section, and on the website of the Department of Innovation Engineering  [https://www.dii.unisalento.it/](https://www.dii.unisalento.it/) at least 3 days before the interview date.

Failure to attend the interview will be considered as a withdrawal from the selection process.

Upon completion of their work, the Committee will prepare a report containing the assessments, the overall score attributed to each candidate, and the ranking of merit. The merit ranking of candidates is compiled for each profile based on the overall rating reported by each candidate, which is the sum of the scores obtained in the evaluation of each evaluative element.

The Committee compiles the merit rankings in descending order. In case of equal merit, preference is given to the younger candidate in age.

Once the regularity of the competition proceedings is verified, these rankings are approved by a Decree of the Director of the Department of Innovation Engineering.

The final outcome of the selection will be published on the Official Online Notice Board of the University, on the institutional website of the University of Salento  [www.unisalento.it](http://www.unisalento.it)- under the "Calls and Competitions" section, and on the website of the Department of Innovation Engineering  [https://www.dii.unisalento.it/](https://www.dii.unisalento.it/).

**Article 5**

**Obligations of the Awardee**

The winners shall establish an autonomous employment relationship under private law by signing the appropriate fixed-term private law contract for the duration indicated in the preceding Article 1.

The contracts are not considered as contracts of subordinate employment.

The established relationship does not entitle to rights regarding access to the roles of the University of Salento or to the roles of personnel of Italian universities and university institutes.

The research will be carried out within the framework of the PhD course in Engineering of Complex Systems - 39th cycle, to which the winners of this selection will be preliminarily enrolled upon the signing of the fellowship contracts, and the related activities will commence concurrently with the start date of the doctoral program, which will be communicated by the Coordinator of the doctoral course.

The winners will be invited to sign the contract within 20 (twenty) days from the notification of the fellowship award. Failure to sign the contract within this period constitutes an irrevocable waiver of the fellowship and, consequently, of the doctoral program, leading to forfeiture of the award.

The fellowship commences from the date of contract signing and concurrently with the start date of the doctoral program, following enrollment in the PhD course in "Engineering of Complex Systems" - 39th cycle.

In case of expressed renunciation by the awardee or failure to sign the contract within the aforementioned period, the fellowship may be conferred to the candidate who has been deemed eligible according to the ranking order.

The Director of the Department of Innovation Engineering must communicate to the competent offices the commencement of the activity. The Director is also required to promptly communicate to the same offices any event that may lead to the termination of the contract and the consequent cessation of compensation payment.

The winner of the selection process will be invited to certify, in accordance with the current regulations, the following states, facts, and personal qualities:
1. citizenship held;
2. enjoyment of political rights (foreign citizens must certify the enjoyment of civil and political rights in the country of citizenship or origin);
3. absence of criminal convictions. In case of otherwise, the winners must certify the criminal convictions, the date of the court decision that issued it (even if amnesty, judicial pardon, remission, pardon, non-mention, etc., have been granted, and even if nothing appears on the criminal record). Foreign citizens must also certify that they have not received criminal convictions in their country of citizenship and in Italy.
4. possession of the specific requirements provided by the rules related to the Marie Skłodowska-Curie Actions (MSCA) Program of the European Union as per Article 2;
5. absence of carrying out, under Law 240/2010, activities with research fellowship contracts for a duration that, together with the duration of the contract referred to in this call, exceeds 6 years.

The winner must be eligible to carry out the research programs; in case of disability, a legalized declaration from a medical officer must be provided, confirming that the disability, in nature and degree, is compatible with the activities to be carried out, the work environments, and the equipment to be used, and that there is no prejudice or risk to their own health and safety or that of other researchers. The provisions of Legislative Decree 09/04/2008, n. 81 on health surveillance remain in force.

The states, facts, and personal qualities self-certified by the winner of this selection process will be subject to appropriate checks by the University of Salento, including random sampling, regarding their truthfulness.

The winner, under penalty of forfeiting the right to receive the fellowship, must:

a) produce documentation proving placement on leave without pay for the duration of the contract if employed by public administrations;
b) submit a declaration of option for the fellowship if engaged in freelance activities or if there are incompatible employment relationships.

Before signing the contract, the winner may request authorization to continue any activities considered not absolutely incompatible under Article 6, where allowed by the Project Grant Agreement and in compliance with the procedures for doctoral students as governed by the current Regulation of the Doctoral Research Courses, available on the institutional website of the University of Salento at the following link: https://www.unisalento.it/documents/20143/80680/DR194_2024_Regolamento_corsi-dottorato.pdf/5bfce026-64d6-9324-0661-21e49bb2be0a. In case of a negative opinion, the winner must cease the activity, under penalty of forfeiting the right to the fellowship and attendance of the doctoral program.

The winner forfeits the right to the fellowship if they do not declare acceptance within the deadline set by the administration or fail to assume duty.

Delays due to serious health reasons or duly proven force majeure cases can only be justified. Any deferment of the start date of the activity and enjoyment of the fellowship will be allowed to those who demonstrate compliance with Legislative Decree 26/03/2001, n. 151 on the protection and support of maternity and paternity, only if the deferred start of research activities is compatible with the project schedule and the eligibility criteria for expenditure.

If the winner assumes duty with a justified delay beyond the set deadline, the economic effects will start from the day of assuming duty.
Article 6  
Prohibition of Accumulation, Incompatibility, Leaves of Absence, and Interruptions

The fellowship is individual. Recipients cannot combine it with income from professional activities or employment relationships. Throughout the duration of the fellowship, the exercise of freelance activities is prohibited.

The assignment of freelance contracts, even occasional ones, by the University for research activities is excluded. Holding the research fellowship is incompatible with dependent employment relationships, even part-time, with private entities.

The fellowship cannot be combined with scholarships conferred for any reason. Holding the fellowship is not compatible with participation in bachelor's, master's, or doctoral programs with scholarships or medical specializations, in Italy or abroad, or with participation in university master's programs, and entails placement on leave without pay for employees in service with public administrations, even if with part-time employment.

The MSCA research fellow, during the period in which they hold the fellowship, undertakes to work exclusively for the project and consequently not to receive any other compensation derived from employment relationships with third parties, in addition to what is provided in this selection announcement, under penalty of automatic termination of the contract.

Subject to what is provided in Article 10 of this announcement, research activities and the fellowship may be suspended, in cases provided for by law, for pregnancy and serious illness. The entire duration of the fellowship cannot be reduced due to the aforementioned suspensions.

An overall period of justified absence not exceeding thirty days in one year does not constitute suspension and, consequently, does not need to be recovered.

Article 7  
Rights and Duties of the Fellowship Holder

The fellowship holder shall exclusively engage in the research activities specified in the contract and previously assessed by the Department as compatible with the research programs of the Department itself.

In compliance with Annex 5 of the ICHAruS Project Grant Agreement, the MSCA fellowship holder shall undertake:

- work full-time and exclusively on the research program referred to in Article 1, under the supervision of the Scientific Supervisor, unless duly justified reasons exist and with prior authorization from the European Commission;
- carry out the research program activities specified for the profiles in this call, with the special diligence required, considering the particular scientific and professional content of said activities;
- prepare all reports required by the Department and the funding body on the activities performed, within the specified deadlines and in the required manner, as well as any additional documents required by the research project and the Grant Agreement;
- comply with the guidelines and directives of the Scientific Supervisor issued for the implementation of the Grant Agreement and to enable the Department to fulfill the project reporting and reporting obligations (ref. Art. 21 GA);
- promptly notify the Department of any event that may impact or slow down the execution of the research program activities or compliance with the requirements of the Grant Agreement (ref. Art. 19 GA);
- comply with the rules on dissemination of research results of the project, via Open Access, as indicated
in Annex 5 of the Grant Agreement, declaring in every publication and other communication means related to the project, the support received from the European Union and providing adequate visibility of the funding under the European MSCA ICHAruS project, in compliance with Article 17 of the Grant Agreement;
- communicate any changes to their contact details for up to three years after the end of the project;
- adhere to the confidentiality obligation provided for in Article 13 - Confidentiality and security of the Grant Agreement;
- maintain conduct in accordance with the provisions of the current "Code of Ethics and Conduct of the University of Salento" and those adopted by the University of Salento regarding corruption prevention and transparency as per the Integrated Activity and Organization Plan 2024-2026.

The fellowship holder may disseminate research results only with the prior authorization of the scientific supervisor or the Department, provided that such dissemination does not breach the confidentiality obligation under Article 13 and other provisions of the Grant Agreement.

The research activities of the fellowship holder are carried out within the Department and/or in other scientific structures of the University based on the research program and as provided for by the ICHAruS project. Any research activities outside the University, beyond the secondment periods provided for in the project and indicated in this call, must be proposed by the relevant Scientific Supervisor and approved by the Department Council.

In any case, the fellowship holder must not engage in activities of mere technical support within specific research programs.

The Department provides the fellowship holder with the necessary support for the implementation of their research program, ensuring access to equipment, resources, and the use of technical-administrative services. The fellowship holder is required to always adopt safe work procedures, in compliance with legislation, and in particular, to take necessary health and safety precautions in the workplace.

Within the first 10 days of the last month of each year and/or within 10 days following the end of the contract, the fellowship holder must submit to the Department Council a detailed report on the research activities carried out, endorsed by the scientific supervisor, subject to the specific reporting obligations of the ICHAruS project and the provisions of the Regulation of the Doctoral Research Courses of the University of Salento, issued with D.R. No. 194 of 05.03.2024, regarding the requirements for advancement to the next year of the course.

In case of serious breaches (unjustified suspension of activity for a period exceeding ten consecutive days; violation of rules regarding incompatibility) reported by the Scientific Supervisor or the Director to the Department Council, the contract may be terminated by resolution of the Council itself, after hearing the party concerned.

Against the resolution to terminate the contract, the concerned party may lodge an appeal with the Academic Senate, which decides definitively.

**Article 8**

**Monitoring and Evaluation of Activities Carried Out**

Within 10 days of receiving the report, prepared by the fellowship holder pursuant to the preceding Article 7, on reasoned opinion of the Scientific Supervisor, the Department Council shall express an opinion on the activities
Article 9
Health Surveillance

The Director of the Department where the research project is carried out is responsible, pursuant to the University Regulation for the implementation of rules for the safety and health of workers (D.R. No. 1029 of 09/05/2007), for compliance with the obligations under Legislative Decree No. 81/2008 and, in particular, for the activation of health surveillance of the research fellow in the manner and with the prescriptions provided by law.

Article 10
Tax, Social Security, and Insurance Treatment

The fellowship awarded under this announcement is subject, in tax matters, to the provisions of Article 4 of Law 13/08/1984, No. 476 and subsequent amendments and integrations, as well as, in social security matters, to those of Article 2, paragraphs 26 and following, of Law 08/08/1995, No. 335 and subsequent amendments. Regarding mandatory maternity leave, the provisions of the decree of the Minister of Labor and Social Welfare dated 12/07/2007, published in the Official Gazette No. 247 of 23/10/2007, apply, and regarding sick leave, Article 1, paragraph 788, of Law 27/12/2006, No. 296, and subsequent amendments apply. During the period of mandatory maternity leave, the allowance paid by the INPS pursuant to Article 5 of the aforementioned decree 12/07/2007 is supplemented by the University up to the full amount of the research fellowship. In the case provided for in the preceding paragraph, the MSCA fellowship holder shall be entitled to the allowance possibly provided for by the current legislation, without prejudice to what is provided by the "Horizon MSCA financial guide" guidelines and the Grant Agreement regarding the Long-term leave allowance with costs borne by the EU. The University provides insurance coverage for accidents and third-party liability for the fellowship holders within the scope of research activities. The amount of the related premiums is deducted from the fellowship.

Article 11
Intellectual Property

Subject to moral rights, recognized by law to the author of the work or invention, regarding the ownership of results deriving from the research activities carried out, the University shall be the exclusive owner of the intellectual property rights deriving from the activities of the MSCA fellow in accordance with what is provided in point 16.2 of the Grant Agreement of the ICHAruS project.

Article 12
Announcement Publication

This selection announcement shall be published in the Official University Notice Board, on the institutional website of the University of Salento www.unisalento.it- section “Bandi e Concorsi” and on the website of the Department of Innovation Engineering https://www.dii.unisalento.it/. It will be advertised electronically through the MIUR website and the EU website.
Treatment of Personal Data and Procedure Manager

The personal data provided by candidates with the application for participation in the selection will be collected at the Department of Innovation Engineering of the University of Salento and processed - also in automated form - exclusively for the purposes of managing this selection procedure, in accordance with the provisions of EU Regulation 679/2016 and Legislative Decree No. 196/2003 as amended by Legislative Decree No. 101/2018. The provision of such data is mandatory for the evaluation of participation requirements, failing which the candidate will be excluded from the selection procedure.

The data subject may exercise the rights referred to in Article 7 of the aforementioned Legislative Decree and EU Regulation 2016/679 GDPR.

In accordance with Legislative Decree No. 33/2013, the candidate who is the winner of the selection must provide the curriculum vitae file in an open format (PDF generated from Word and not from scanning), devoid of information regarding marital status, tax code, place of birth, residence, and personal contact details, as well as any signatures, in order to reduce the risk of identity theft. In compliance with the aforementioned regulation, this Department will proceed to publish, in the specific “Amministrazione Trasparente” section of the institutional website www.unisalento.it, the curriculum vitae of the successful candidate and the main elements of the contract (assignment description, duration, compensation). The online dissemination of the curriculum vitae and other information required by transparency regulations will be carried out in accordance with the principles of necessity, relevance, and non-excessiveness. The curriculum vitae will remain published for three years after the termination of the assignment, will be indexed by search engines, and will be visible, consultable, and downloadable by anyone. To exercise rights over their data (correction-integration), individuals can write to the Procedure Manager.

The data subject may exercise the rights referred to in Article 7 of the aforementioned Legislative Decree. The Procedure Manager, pursuant to Law No. 241/1990 and subsequent amendments and integrations, is Dr. Rita Malorgio, administrative coordinator of the Department of Innovation Engineering, email rita.malorgio@unisalento.it, tel. +39 0832/297700. The administrative contact person is Dr. Giusy Elefante, email giusi.elefante@unisalento.it.

Article 14
Reference Rules

For matters not expressly provided for in this call, the provisions of the current “Regolamento per il conferimento di assegni per la collaborazione ad attività di ricerca, di cui all’art. 22 della legge 30 dicembre 2010, n. 240” of this University shall apply, as well as, where applicable, the provisions of the Civil Code.

This English translation may not be used for legal purposes and is exclusively prepared to assist foreign candidates.

This decree will be ratified at the first available session of the Department Council.
Annex 1

To the Department of Engineering for Innovation

The undersigned ...................................., born in .............................................. on ........................., Tax Code ..................................................., residing in ........................................ (province code) .................. at ...................................................., House No. ..............., Postal Code .................., Tel .........................................., PEC (Certified Email) .........................................................., email .............................................

The undersigned ................................................., born in .................................................. on ................................, Tax Code ..................................................., residing in ........................................ (province code) .................. at ...................................................., House No. ..............., Postal Code .................., Tel .........................................................., PEC (Certified Email) .........................................................., email ..................................................

REQUESTS

to be admitted to participate in the public selection procedure for the assignment of n. 2 research fellowships for the coverage of n. 2 additional positions within the Doctoral Course in "Engineering of Complex Systems" / "Engineering of Complex Systems" within the framework of the research project entitled "Investigation and Control of Hydrogen Flames Across the Scales_ICHaRuS" under the HORIZON-MSCA-2022-DN-01 call – academic year 2023/2024 (CUP F83C2300089006) – 39th cycle - at the Department of Innovation Engineering - Scientific Supervisor Prof. Maria Grazia De Giorgi.

To this end, being aware of the full text of the competition notice, aware of the criminal penalties provided for by Article 76 of Presidential Decree 28 December 2000, n. 445, for cases of falsehood in acts and false statements indicated therein, declares under his/her own responsibility, pursuant to Articles 46 and 47 of the same Presidential Decree no. 445/2000, to:
a) not being a permanent employee of the University, not holding a permanent position with other subjects referred to in art. 22 of Law 240/2010 nor with other public administrations provided for by the same article, nor being in any of the incompatibility situations provided for in art. 2 of this notice;
b) to possess the following admission requirements as per art. 2 of this notice:
- possession of a Master's degree or single-cycle degree (former Ministerial Decree 270/2004), or, a bachelor's degree (course of study lasting no less than 4 years) provided for by the educational regulations preceding Ministerial Decree 03/11/1999, n. 509 or the specialist degree obtained in accordance with the Ministerial Decree 509/1999) in ............................................................., obtained from ........................................, with a grade of ...................;
c) not having a degree of kinship or affinity, up to the fourth degree inclusive, with the Director or with a
Professor belonging to the Department of Engineering for Innovation, or with the Rector, the General Director, or a member of the Board of Directors of the University of Salento.

The undersigned communicates to elect their domicile for competition purposes at __________________________ (city, street, number, and postal code) tel. ___________; PEC, email __________________________.

d) to possess the following necessary requirements to access the selection, as required by the rules of the Marie Skłodowska-Curie Actions (MSCA) program of the European Union:
   - not to hold a doctoral degree;
   - Mobility requirements: not to have resided or carried out main activities (work, studies, etc.) in Italy for more than 12 months in the three years immediately preceding the date of appointment (understood as the date of signing the contract) - unless it concerns compulsory national service or a procedure to obtain refugee status under the Geneva Convention.

e) not to have carried out, under Law 240/2010, activities with research fellowship contracts for a duration that, together with the duration of the contract referred to in this call, exceeds 6 years.

The undersigned declares, moreover, to have taken note of all the clauses of the notice and admission conditions to the notice and to consent, pursuant to Legislative Decree 30/06/2003, no. 196, to the processing of personal data for the sole purposes related to the competition procedure and the procedures relating to the appointment.

The undersigned also attaches the following documentation:
   a) copy of a valid identity document, with the date and handwritten signature of the candidate and copy of the tax code;
   b) curriculum vitae of his/her scientific and professional activity, dated and signed, made in the form of a self-certification pursuant to Presidential Decree 445/2000;
   c) self-certification of the qualifications held in cases allowed by articles 46 and 47 of DPR 28/12/2000 no. 445, by means of statements replacing certifications or statements replacing the notarial deed (Annex no. 2 to the application form);
   d) titles presented in original or in copy conforming to the original accompanied by a special declaration signed in accordance with Articles 19 and 47 of DPR 28/12/2000 no. 445 attesting to their conformity (according to the attached specimen 3);
   e) list of publications and titles submitted.

The undersigned undertakes to communicate any subsequent changes, recognizing that the administration assumes no responsibility for the dispersion of communications resulting from incorrect indication of the address by the competitor or from failure, or late communication of the change of address indicated in the application, nor for any postal and telegraphic errors, or otherwise attributable to third parties, to fortuitous events or force majeure.

Space reserved for those who intend to benefit from the benefits provided for by art.20 of law no. 104/1992.

I undersigned ___________________________ declares to be disabled under art.3 of law 05/02/1992, no. 104, as evidenced by the attached documentation and, therefore, requests to have the following assistance and/or additional time:
Date ____________________
Signature ____________________ (a)

a) to affix one’s signature at the bottom of the application; the same, for citizens of the European Community, must not be authenticated by any public official.
I undersigned __________________________ born in __________________________ province __________________________ on __________________________ and residing in __________________________ street __________________________, aware of the provisions of Article 76 of Presidential Decree No. 445 of December 28, 2000, regarding the criminal liability in case of false statements and declarations, under the terms and for the effects of the aforementioned Presidential Decree No. 445/2000 and under own personal responsibility:

DECLARES

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

_____________________________________________________

Date ____________

The Declarant

________________________________________________________________________________________

According to Article 38 of Presidential Decree No. 445 of December 28, 2000, the declaration is signed by the interested party in the presence of the authorized employee or signed and sent together with a photocopy of an identification document of the declarant.
UNIVERSITY OF SALENTO
DECLARATION REPLACING THE CERTIFICATE OF NOTORIETY
(Articles 19 and 47 of Presidential Decree No. 445 of December 28, 2000)

I, the undersigned ________________________, born in ____________________, Province on __________________ and residing at ________________________, aware of the provisions of Article 76 of Presidential Decree No. 445 of December 28, 2000, regarding the criminal liability that may arise in the event of false statements and misleading declarations, pursuant to and for the purposes of the aforementioned Presidential Decree No. 445/2000 and under my personal responsibility:

DECLARE

that the copy of the following certificate/publication ______________________________ is in conformity with the original.

Date __________________

The Declarant

(…) According to Article 38 of Presidential Decree No. 445 of December 28, 2000, the declaration is signed by the interested party in the presence of the responsible employee or signed and sent together with a photocopy of the declarant’s document.