



EUROPEAN DOCTORAL NETWORK

CALL FOR RECRUITMENT

Research Fields. Control Engineering, Energy Engineering, Electrical Engineering, Thermal Engineering, Mathematics, Computer Science, Data Science.

Recruiting Organisations. The training and research of the 12 doctoral candidates (DCs)/PhDs will be carried out across **12 different main hosting and recruiting organizations and related Departments, please** visit the DENSE webpage for more details: <https://dense-dn.eu>.

All academic and research institutions that will recruit DCs have all the academic, administrative, technical, and human resources staff needed to help the candidates as they advance their careers as scientists focused on energy systems.

Overview of the research and training objectives. DENSE (Dependable Smart Energy Systems) is a 4-year Marie Skłodowska-Curie Actions-Doctoral Network (HORIZON-TMA-MSCA-DN) funded within the framework of the HORIZON EUROPE Programme. It brings together 12 partners from applied research, academia and industry in 6 different countries with the aim of implementing 12 doctoral research projects.

DENSE is addressing individual research projects and training of early-stage researchers in the innovative dependable engineering of Smart Energy Systems (SEs) with the main focus on robustness as well as preventive and corrective actions under uncertainty. Dependability of complex networks, such as SEs, characterizes their ability to deliver service that can justifiably be trusted. Thus, dependability comprises system attributes, such as availability, reliability, safety, integrity and maintainability. A key requirement of dependability is the desire for providing justifiable trust in the system performance. Hence, rigorous systems engineering yielding provable performance guarantees throughout the system's life time is already required at the design stage. This challenge is tackled in DENSE, through 12 cutting edge research and training projects at doctoral level (www.dense-dn.eu/recruitment/) with a focus on operational robustness as well as preventive and corrective actions in SEs. These research projects span many disciplines, including *control engineering, energy engineering, electrical engineering, thermal engineering, computer science, data science, and mathematics*.



Doctoral Candidates' eligibility criteria. The DENSE consortium invites applications of highly-motivated, outstanding candidates, of any nationality, age and gender that respect all the following eligibility rules at the date of the Call deadline:

| | |
|--|--|
| 1.MSCA Eligibility requirements | <p>Applicants must satisfy the MSCA definition of Doctoral Candidates (DC):</p> <p>The applicants should not be in possession of a doctoral degree at the time of the call deadline.</p> <p>Candidates who have successfully defended their PhD thesis but have not received their degree will not be accepted.</p> |
| 2.MSCA Mobility requirements | <p>Applicants must not have lived or carried out their main activity in the main host and recruiting country for more than 12 months in the past 3 years immediately prior to the Call deadline.</p> |
| 3.DENSE Academic qualifications | <p>Applicants must hold a relevant Master degree or equivalent at the time of the application. The educational background should fit with the required skills announced for each DC.</p> <p>Exception: In case a candidate has not obtained yet their Master's degree at the Call closing date (by the 31st of March 2024), they can nevertheless apply. If a candidate is then part of the final ranking list and to be selected for one of the DENSE positions, before being offered a contract of employment, they will be required to provide the Master's degree certificate (or, alternatively, a formal preliminary certificate) before the starting date of the employment..</p> |
| 4.DENSE Proof of English | <p>Very good knowledge of English (speaking and writing) is expected.</p> <p>For DCs 3, 6, 7, 8, and 10, students need to meet the requirement of the institutions of enrolment. Language requirements details must be checked on the DC descriptions.</p> |

To be considered eligible:

- The complete application pack is received by the Call deadline date and timing.
- The application pack is submitted with all the requested documents and templates.
- It is a strict admissible condition for applicants to use the template application documents (CV, reference and motivation letters) easily accessible in Word format below from <https://www.dens-dn.eu/recruitment/>. Applications submitted without using the due applications documents will be deemed as ineligible.

What is funded. The 12 selected DCs will be recruited with a full employment contract of 3 years (36 months), which will comprise:

- A living allowance of 3400 € (multiplied by a country correction coefficient), corresponding to the gross salary (employer/employee) paid in monthly instalments to the DC fellows, inclusive of all social security coverage, contribution to pension funds and unemployment indemnity;
- A mobility allowance of 600 € for fellows' expenses linked to their mobility (e.g., relocation and accommodation expenses);
- A family allowance of 660 € (if applicable);
- For each DC fellowship a contribution to costs needed to carry out research projects (e.g. consumables, publications, others) and a contribution to the training activities (e.g. local and network trainings as well as conference and workshop participations) managed directly by the main hosting organisation is provided;
- Fiscal treatment, social security (SSC) and sick/maternity or paternity leave will be fully covered according to the national Social Security regulation of the country of recruitment.

Call planning. The DENSE project started on the 1st of January 2024 and will last 48 months. A Call for recruitment for selecting the 12 international Doctoral Candidates (DC) is opening the **23rd of February 2023**, with an application deadline of the **31st of March 2024** (5 pm CET). The schedule of the selection process is detailed in the table below:

| Activity | Dates |
|---|-------------------------------|
| Call opening | 23/02/2024 |
| Call closing | 31/03/2024 (5pm CET) |
| Eligibility check of candidates and organisation of evaluation panels | By 02/04/2024 |
| Evaluation | April |
| Short list and invitation for interviews | Beginning of May |
| Interviews | From 05/05/2024 to 12/05/2024 |
| Final ranking list | 15/05/2024 |
| Offer of contract/enrolment | By the end of May 2024 |
| Duration of each fellowship | 36 months |

How to Apply. Applications need to be submitted through the email address recruitment-dense@ec-nantes.fr, by the given deadline. In order to be eligible, the online application form must be submitted together with a set of due application documents, each using the templates provided. **The email object and the attached Pdf file must include the specific DC code(s) that you apply for.** To this end, specific **Guidelines for Applicants** will guide candidates for the application stage, available for easy downloading from the **recruitment page** <https://www.dense-dn.eu/recruitment/>

Further information and contact. Please visit DENSE website at: <https://www.dense-dn.eu/recruitment>

