

01/05/2020



# 13 PhD Student Positions within EU MSCA-ITN-ETN NewFrac

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## Where to apply

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Application Deadline: 30/06/2020 12:36 - Europe/Athens

## Contact Details

**Where to send your application.**

### COMPANY

NEWFRAC

### WEBSITE

<https://www.newfrac.eu/phd-positions/overview>

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## Hiring/Funding Organisation/Institute

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### ORGANISATION/COMPANY

NEWFRAC

### COUNTRY

Spain

### DEPARTMENT

Escuela Técnica Superior de Ingeniería

### POSTAL CODE

41092

**ORGANISATION TYPE**

Higher Education Institute

**STREET**

Américo Vespucio, s/n

**WEBSITE**<http://www.sacsis.es>**ORGANISATION/COMPANY**

NEWFRAC

**LOCATION**

Spain › Sevilla

**RESEARCH FIELD**

Engineering › Materials engineering

Engineering › Mechanical engineering

**TYPE OF CONTRACT**

Temporary

**RESEARCHER PROFILE**

First Stage Researcher (R1)

**JOB STATUS**

Full-time

**APPLICATION DEADLINE**

30/06/2020 12:36 - Europe/Athens

**HOURS PER WEEK**

37,5

**OFFER STARTING DATE**

01/11/2020

**EU RESEARCH FRAMEWORK  
PROGRAMME**H2020 / Marie Skłodowska-Curie  
Actions**REFERENCE NUMBER**

NEWFRAC

**MARIE CURIE GRANT AGREEMENT  
NUMBER**

861061

The Marie Skłodowska-Curie European Training Network "NEWFRAC" ([www.newfrac.eu](http://www.newfrac.eu)) offers 13 PhD positions for early stage researchers. The duration of the appointment is 36 months, full-time employment contract.

"NEWFRAC" ([www.newfrac.eu](http://www.newfrac.eu)) is a high-level training of a new generation of creative, entrepreneurial and innovative early-stage researchers (ESRs) through the development and engineering applications of a new modeling framework focused on the prediction and analysis of

multi-field fracture phenomena in heterogeneous engineering systems at different scales. NEWFRAC in its mission of training students capable of solving the current problems of multi-field fracture phenomena in heterogeneous engineering systems, offers **13 PhD positions** for early stage researchers (**ESRs**) distributed in a network of 4 European countries (**France, Germany, Italy and Spain**) and two countries associated (**Israel and Switzerland**), with the participation of prestigious academic and industrial institutions that will allow researchers to grow and develop their technical skills in a multisectoral environment.

Besides working on their project at their home institutions, the researchers will participate in network-wide training events like summer schools. Moreover, they will conduct secondments at other network partners combining academic and industrial experiences.

A list of the currently available 11 PhD positions /ESR Projects is presented below. To apply to a specific position/project, click on the title and follow the instructions.

The application & selection process might be proper to each organisation, please visit our website and verify the application procedure and deadlines for the position you are interested in:

<https://www.newfrac.eu/phd-positions/overview>

#### **List of currently available PhD / ESR positions (+ host institutions and supervisors):**

**ESR1:** Total energy minimization with stress conditions for mixed mode fracture in anisotropic heterogeneous materials and structures

**Universidad de Sevilla (Spain)**

**ESR2:** Toughening composites by micro and meso structural optimization

**Universidad de Sevilla (Spain)**

**ESR3:** Fracture analysis of advanced layered ceramics

**Sorbonne Université (France)**

**ESR4:** Fracture of LFRP ultra-thin ply laminates in aeronautical applications

**Univrsidade do Porto, (Portugal)**

**ESR5:** Nucleation and propagation of compressive cracks

**Sorbonne Université (France)**

**ESR6:** Multiscale modeling of fracture processes in injection molded SFRPs

**Robert Bosch GmbH (Germany)**

**ESR7:** Debonding of the reinforcement in LFRP and FRCC externally strengthened beams

**Politecnico di Torino (Italy)**

**ESR8:** Fracture in biological anisotropic hard tissues (human bones)

**Tel-Aviv University (Israel)**

**ESR9:** Multi-field and multi-scale modeling of fracture for renewable energy applications

**IMT School for Advanced Studies (Italy)**

**ESR10:** PF modeling of fracture in the human femur

**ETH (Switzerland)**

**ESR11:** Analysis of the failure mechanisms associated to the unfolding failure in CFRP profiles

**FIDAMC, (Spain)**

**ESR12:** Fracture in fibre-reinforced thermoplastics (FRTPs) across the scales

**Univrsidade do Porto, (Portugal)**

**ESR13:** Phase Field and Finite Fracture Mechanics for fragmentation and dynamic crack propagation in brittle materials and composites

**Politecnico di Torino, (Italy)**

Contract signing and incorporation dates have yet to be defined. For **more information** about the call and application process visit [www.newfrac.eu](http://www.newfrac.eu)

## ADDITIONAL INFORMATION

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### Benefits

A full-time fixed-term contract is offered. Marie Sklodowska Curie Actions ITN provide competitive financial support to the ESR including: a competitive monthly living and mobility allowance and salary, coverage of the expenses related to the participation of the ESR in research and training activities (contribution to research-related costs, meetings, conference attendance, training actions, etc.). The recruited researchers will have a regular contract with the same rights and obligations as any other staff member of the institution.

### Eligibility criteria

Applicants must at the time of recruitment: **1)** Be in the first four years (full-time equivalent) of their research careers. The four years start to count from the date when a researcher obtained the degree (e.g. Master's degree) which would formally entitle him/her to embark on a doctorate. **2)** Candidates could be of any nationality but have not resided in the host country for more than 12 months in the last 3 years **3)** Have NOT been awarded a doctoral degree.

## Selection process

Applicants are evaluated by a selection committee on the basis of past academic performance (grades) and background, scientific relevance and aptitude to research, and any other additional pertinent data submitted in the application (such as scientific publications, if any). The candidates that pass the initial assessment of the applications will be invited for an interview with the selection committee, either in person at the campus, or via standard internet videoconference. Equal opportunities are ensured to all candidates throughout the evaluation process.

## Web site for additional job details

<https://www.newfrac.eu/phd-positions/overview>

## REQUIREMENTS

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### Offer Requirements

#### **REQUIRED EDUCATION LEVEL**

Engineering: Master Degree or equivalent

#### **REQUIRED LANGUAGES**

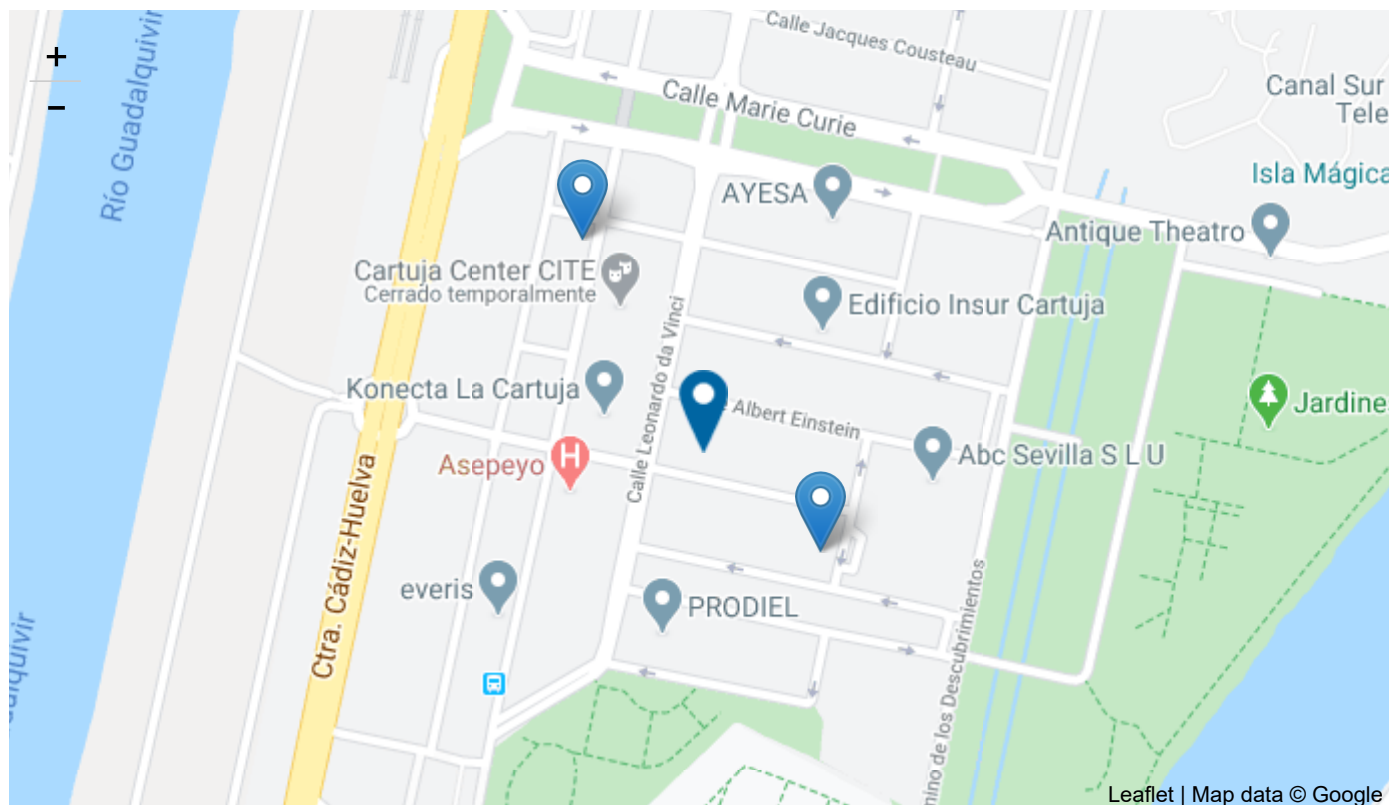
ENGLISH: Excellent

### Specific Requirements

Each ESR have their minimum skills requirements at:

<https://www.newfrac.eu/phd-positions/overview>

# Map Information



## WORK LOCATION(S)

13 position(s) available at

NEWFRAC

Spain

Sevilla

41092

EURAXESS offer ID: 519564

## Disclaimer:

*The responsibility for the jobs published on this website, including the job description, lies entirely with the publishing institutions. The application is handled uniquely by the employer, who is also fully responsible for the recruitment and selection processes.*

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