Jobbnorge ID: 166373
Deadline: 3/25/2019
Website: http://www.ntnu.no
Scope: Fulltime
Duration: Engagement

The NTNU Challenge: Call for postdoc/experienced researcher candidates interested in applying for an MSCA Individual Fellowship

MSCA Individual Fellowship: Additive Manufacturing of sustainable cementitious composites

This is NTNU

At NTNU, creating knowledge for a better world is the vision that unites our 7 000 employees and 40 000 students.

We are looking for dedicated employees to join us.

Video: https://www.youtube.com/watch?v=clgKd1SwGLI

About the call

The NTNU Challenge invites experienced researchers across eight disciplines of any nationality and age to work in tandem with a supervisor in order to submit successful applications to Marie Skłodowska-Curie Individual Fellowships.

If chosen, you will be invited to participate together with a supervisor on a three-day symposium on MSCA-IF at NTNU Trondheim from 22 to 24 of May. Together, you will write and prepare an application towards the MSCA-IF Call with deadline 11 September 2019. Travel costs related to the events 22-24 May will be covered by NTNU.

About Marie Skłodowska-Curie Individual Fellowships (MSCA-IF)

The Marie Skłodowska-Curie Actions (MSCA) aim to support the career development and training of researchers in all scientific disciplines through international and inter-sectoral mobility. By funding excellent research and providing attractive working conditions, the MSCA offer high quality professional opportunities open to researchers of any age, nationality or discipline.

The goal of the Individual Fellowships is to enhance the creative and innovative potential of experienced researchers wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and inter-sectoral mobility. Individual Fellowships provide opportunities to acquire and transfer new knowledge and to work on research and innovation in Europe (EU Member States and Associated Countries) and beyond.

Project proposal

Additive Manufacturing of sustainable cementitious composites

Additive manufacturing of cementitious composites facilitates automatic manufacturing using computer-aided design models, which play a key role in the digitalization of construction. Additive manufacturing of cementitious composites has the potential to revolutionize traditional construction criteria and methods by reducing the need for concrete production and casting manpower as well as high capital investments for formwork, transportation and even establishment of factories for precast concrete. While different methods for additive manufacturing of cementitious composites has been developed, there are still many challenges that hinder the full-scale adoption of additive manufacturing of concrete in construction. Material development and composition control, reinforcement solutions, process parameter optimization as well as environmental impacts and material cost are some of the main issues that remain still under question.

The successful Postdoc candidate will develop methods for Additive Manufacturing of new and sustainable cement-based composites, which leads to revolutionary and competing building and construction industry. The main supervisor for the candidate will be from the research group for Sustainable Composites.

For the complete project proposal as well as additional information regarding the NTNU Challenge, see https://www.ntnu.edu/horizon/msca

Eligibility criteria

- The researcher must, at the date of the MSCA-IF call deadline, possess a PhD Degree and/or an equivalent of minimum four years' full-time research experience.
- The researcher must, at the date of the MSCA-IF call deadline **not** have conducted his/her main activity in the country of the beneficiary (Norway) for more than 12 of the 36 months.
- Evidence of good English language skills, written and spoken.

In the evaluation of which candidate is best qualified, selection will be conducted by the supervisor. Emphasis will be placed upon the academic accordance with the supervisor and the project proposal.

We offer

- A designated supervisor with whom to prepare an application for the MSCA-IF call with
- A two-day symposium with showcasing of expertise and best practices on how to apply to MSCA-IF
- A follow-up day with the supervisor and possible individual guidance by experts on MSCA-IF
- Administrative support up to the call deadline

Conditions

Appointment as post doc up to a maximum of 24 months at NTNU rests on the prerequisite of an approved application to the MSCA-IF call with deadline 11 September 2019. Feedback on said applications is expected early 2020.

General information

Working at NTNU

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

Questions about the call may be directed to: msca@horizon.ntnu.no or mohammad.baghban@ntnu.no

About the application:

Publications and other academic works that the applicant would like to be considered in the evaluation must accompany the application. Joint works will be considered. If it is difficult to identify the individual applicant's contribution to joint works, the applicant must include a brief description of his or her contribution.

Please submit your application electronically via jobbnorge.no with your CV, cover letter, diplomas and certificates that highlight the alignment of your application. In addition, the applicant must describe a research project that will strengthen and complement the presented research (max 2 pages). Please refer to the application number MSCA-IF-IV/3 when applying.

Application deadline: 25.03.2019

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Department of Manufacturing and Civil Engineering

Our profile of expertise can help to solve the world's most important societal challenge: the development of sustainable solutions in industry and society. This profile includes research on modern industrial processes, use of new and recycled materials, new technological solutions and the application of new forms of organization and business models. The Department of Manufacturing and Civil Engineering is one of eight departments in the Faculty of Engineering.

Additional information

Place of service:

Department of Manufacturing and Civil Engineering 2815 Gjøvik (Gjøvik Municipality)