

15 PhD Position within Marie Skłodowska-Curie Innovative Training Network “FINESSE”

The FINESSE (Fibre NErvous Sensing SystEms) consortium is offering 15 PhD fellowships for early career researchers. Highly competitive and attractive salary are offered, plus mobility and family allowances as applicable. The successful candidate will be part of the Marie Skłodowska-Curie Innovative Training Network (ITN), FINESSE, funded by the European Union. The 15 Early Stage Researchers (ESRs) will be welcomed at 10 host institutions spread across 8 European countries and will perform research at a host institution and short-term secondments in 16 other European industrial/academic partner laboratories.



Project description

In FINESSE, the consortium will develop novel sensing systems in combination with dedicated optical fibres leading to optimal measurement solutions instead of relying on conventional optical fibres. To reach this ambitious goal, the research partners have identified three complementary scientific approaches:

1. The development and implementation of new interrogation architectures (ESR 1-5), that will make Distributed Optical Fibre Sensors (DOFS) more efficient and performant (millimetre scale resolutions over more than 100m, dynamic measurement up to 1 kHz refresh rate, etc.).
2. The design and fabrication of novel optical fibres (ESR 6-10), sensitive to other parameters than temperature and strain, including pressure, electric field, curvature, gas concentration, etc. that will be used in DOFS systems.
3. The assembly of these new interrogation architectures and optical fibres to create novel DOFS systems, which will all be implemented and validated in the field (ESR 11-14).

These task will be conducted by the FINESSE partners, all working in different fields, ranging from civil and geotechnical engineering to radioactive waste management. One PhD research (ESR 15) will tackle



@ItnFINESSE



@ItnFINESSE

efficient and effective technology transfer of FINESSE's academic research results to the European optical fibre sensor industry by continuously screening and assessing opportunities in optical fibre sensing technologies and interacting with the industrial partners. This will also ensure swift transfer of the ESR fellows from academics to industry following their training.

Some PhD positions are still available within the FINESSE network and the corresponding individual research plan can be accessed via the Euraxess website:

Phd position	Euraxess Job ID	Euraxess URL
03	121793	https://euraxess.ec.europa.eu/jobs/121793
06	121796	https://euraxess.ec.europa.eu/jobs/121796
07	121797	https://euraxess.ec.europa.eu/jobs/121797
09	121799	https://euraxess.ec.europa.eu/jobs/121799
10	121800	https://euraxess.ec.europa.eu/jobs/121800
11	121801	https://euraxess.ec.europa.eu/jobs/121801
12	121802	https://euraxess.ec.europa.eu/jobs/121802

Candidate Profile

The candidate has a Master/Engineering degree and has a good knowledge and interest in both experimental and theoretical modelling work. Interest in the broader field of optical fibre technologies and measurement technologies is required. Knowledge in the field of optical fibre sensing and a track record in scientific publications are great assets. **The candidate has less than 4 years research experience.** In addition, applicants must not have resided or carried out their main activity (work, studies, etc.) in the applied country for more than 12 months in the 3 years immediately prior to the recruitment date. The candidate should have excellent communication skills in English (both in speaking and writing), should be able to work both in a team and independently, should demonstrate initiative and should be proactive in the project. He/she is expected to endorse the educational vision of the university.

Main tasks

- Conduct original scientific research
- Be trained as part of a doctoral programme at the host institution, in line with a pre-defined Personal Career Development Plan
- Write research reports and scientific articles
- Travel abroad to partnering European laboratories to conduct research in collaboration with these labs (anticipated period spent abroad in partnering labs is 9 months in total during the first 3 years of the PhD)
- Present research at (international) seminars and conferences
- Coach Master thesis students



@ItNFINESSE



@ItNFINESSE

Offer

As PhD student within the FINESSE network, you will work in a friendly and international environment with the other fellow FINESSE ESRs and the scientists involved in FINESSE. The grant and salary, including social security coverage, complies with the Marie Skłodowska-Curie PhD fellowship scheme for early career researchers as described on the following webpage:

ec.europa.eu/research/mariecurieactions/about-msca/actions/itn/index_en.htm

Further information-contact on the FINESSE network

Contact Dr. Kenny Hey Tow at finesse@epfl.ch for further queries.

You can also follow our activities via:

- FINESSE website: <http://itn-finesse.eu/>
- Social media: FINESSE facebook ([@ItnFINESSE](https://www.facebook.com/ItnFINESSE)) and Twitter ([@ItnFINESSE](https://twitter.com/ItnFINESSE)) pages, LinkedIn ITN-FINESSE group (<https://www.linkedin.com/groups/8578581>)

Application procedure

Submit your application to contact person of the host institution you're applying for. More information on the individual research ESR programmes.

Admission requirements

- The application must be accompanied with the following documents in PDF format.
 - Statement of professional interest
 - CV
 - Transcripts of records from university/university college
 - Example of technical writing, e.g., thesis, essay, course report or scientific paper
- Planned starting date: as soon as possible, **no later than the 1st of April 2017**.
- Deadline for application: **30/11/2016**



@ItnFINESSE



@ItnFINESSE