SOLAR-TRAIN is an innovative project focused on durability and life time assessment of photovoltaic modules. As part of the H2020 Marie Sklodowska-Curie Actions (MSCA) Innovative Training Networks (ITN) SOLAR-TRAIN invites applications for 14 Marie Sklodowska Curie fellowships starting in March 2017. The successful candidates will join the project as early stage researchers (ESRs) for three years with the possibility to enroll a PhD programme and finish with a PhD thesis.

The Centre for Renewable Energy Systems Technology (CREST) is a Centre within Loughborough University focussing on the application of renewable energy technologies. Loughborough University is a top ten University in the UK and CREST has been named as one of the top five research centres world-wide for renewable energy technologies. The Applied Photovoltaics Group within this Centre focusses on the performance of photovoltaic technologies. This includes precision measurements, failure analysis and energy forecasting from microscopic cell structures to gigawatt scale systems.

As of **March 1st** the following Marie Sklodowska Curie fellowship will be assigned:

Statistical Analysis of Reliability and Durability of Fielded Systems

Project description

This project will be carried out in close collaboration with Lightsource Renewables (LSR), the largest owner and operator of PV systems in the UK. The overall aim of this project is to identify and predict how much energy is lost over the life-time of a PV system due to reliability and durability issues, i.e. failures and ageing of devices and components. The objectives are:

- ✓ analyse and assess large scale PV systems
- ✓ develop tools to quantify reliability and durability in a number of PV systems
- ✓ develop reliability and durability models for PV modules and other components
- ✓ develop statistical methods to assess reliability and durability and validate against monitored systems

The ESR will focus on a physics of failure based approach but going beyond single components to the impact on full scale systems. The development of predictive analytics will plug a key gap currently slowing the deployment of new technologies and thus will be highly relevant for the future of this technology.

Your profile

- ✓ Higher degree (MSc, Diploma) in physics, engineering or mathematics that qualifies for enrollment to a doctoral programme.
- ✓ Compliance with the mobility rules laid out in the MSCA ITN guidelines: At the time of recruitment, candidates **must not have legally resided or have had their main activity** in the country of their host organization for more than 12 months in the last 3 years.
- ✓ Good knowledge and skills in modelling and statistics.
- ✓ Experience in software engineering, databases and PV technologies are advantageous
- ✓ Openness for interdisciplinary collaboration and topics.
- ✓ Willingness to move to countries within EU for ESR placement and temporary secondments
- ✓ Meet all requirements for PhD registration at Loughborough University (www.lboro.ac.uk)
- ✓ Be **eligible for home student fees** for Loughborough University

Application

Please apply till **11 December 2016** according to the instructions on project website www.solar-train.eu

Loughborough University