![solartrain logo]

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 write a PhD thesis.

With a staff of about 1100, the Fraunhofer Institute for Solar Energy Systems ISE in Freiburg, Germany is the largest solar energy research institute in Europe. Its application-oriented research focuses on the technical use of solar energy and the further development of sustainable energy supply.

The group "Service Life Analysis" investigates the quality and durability of PV modules and solar thermal collectors, and their materials and components. Our team supports and advises partner and customers in evaluating the durability of new components and innovative materials for use in solar energy systems. The evaluation of climatic loads in different locations and operational conditions forms an essential part of our work.

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

Investigation of the Correlation of Different Climatic Degradation Factors as a Basis for Typical Load Definition

Project description

Identification of typical climatic load situations for PV modules and especially investigation of the correlation of different degradation factors. Specific objectives are:

- ✓ Exploration of available and suitable climatic data
- ✓ Evaluation of typical loads, such as UV radiation, relative humidity, ambient temperature, impairing on PV-modules during service life in dependence of the specific location
- ✓ Evaluation of PV-module component materials (encapsulation, backsheet, cells and metallization etc.) and their degradation pathways (e.g. hydrolysis, discoloration, corrosion) in dependence of specific loads to identify the most critical climatic degradation factors for PV modules
- ✓ Assessment of the correlation between different climatic degradation factors on the basis of collected climatic data
- ✓ Calculation of degradation factors for specific climatic loads
- ✓ Comparison of prevailing degradation loads in specific climates, e.g. in tropic, arid, alpine and moderate climates
- ✓ Determination of data sets of correlated climatic degradation factors in dependence of specific climates for various climates

Your profile

- ✓ 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
- ✓ Willingness to move countries for ESR placement and temporary secondments
- ✓ Higher degree (MSc, Diploma) in physics, chemistry, related engineering science or meteorology that qualifies for a doctoral degree
- ✓ Fluent in English and willingness to travel
- ✓ Experienced in working with modelling and simulation
- ✓ Openness for interdisciplinary collaboration and topics

Application

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

![EU flag] ![Fraunhofer ISE logo]