

## Marie Skłodowska-Curie PostDoc Positions in Germany

### “Expression of Interest” for hosting Fellows

This template should be used by institutions interested in hosting post-doctoral fellows within the Marie Skłodowska-Curie Individual Fellowship programme. Hosts should be located in Germany.

#### 1. Valid for the following Calls:

<input checked="" type="checkbox"/> 2017
<input checked="" type="checkbox"/> 2018
<input type="checkbox"/> 2019
<input type="checkbox"/> 2020

#### 2. Interested institution (legal person):

**Hochschule für Technik, Wirtschaft und Kultur Leipzig (HTWK Leipzig)  
University of Applied Sciences**

Karl-Liebknecht-Straße 132  
04277 Leipzig

HTWK Leipzig University of Applied Sciences (HTWK Leipzig) offers high-quality education in a diverse range of subjects and focuses on applied research in four main research areas: Preserving Resources – *Construction & Energy*, Maintaining Health – *Life Science & Engineering*, Taking Responsibility – *Engineer & Economy* and Accessing Information – *Media & Information*. With its distinguished technical profile, the university takes the role of a competence centre in engineering in the region.

About 6,000 students are enrolled in more than 40 undergraduate and master degree programmes at 7 faculties, and professors supervise about 80 PhD candidates who are mainly employed as research fellows in projects funded by state or industry. Various and long-term cooperation with industry and research institutes in Saxony, Germany and Europe as well as a wide range of research project funding show evidence of HTWK's performance in applied research.

[www.htwk-leipzig.de](http://www.htwk-leipzig.de)

#### 3. Institute/Department:

Institute of Concrete Construction/Research Group Sustainable Building  
<http://www.nachhaltigesbauen.htwk-leipzig.de/en/research-group-sustainable-building/>

The research group *Sustainable Building* is part of the Institute of Concrete Construction in the Department of Civil Engineering. It was formed in 2013 to expand the research focus of the institute, which was before centered on engineering problems of concrete

construction. The research group adds expertise in building physics, architectural planning and design, production processes, and new materials. The focus of this multidisciplinary approach is the building envelope, mainly in the form of façade elements and its interdependence with the energy concept of the building. The research extends beyond the development and analysis of construction elements and the related energy flows towards experimentation, measurement and monitoring of construction elements.

#### 4. Position, scientific requirements, topic, discipline\*:

PostDoc Position:

\*Please tick:

(according to [scientific subject areas](#), defined by the German Research Foundation)

- Life Sciences
- Natural Sciences
- Engineering Sciences
- Social Sciences and Humanities

We are especially interested in fellowship candidates who bring with them new perspectives and experiences in the topics of green façades, prefabrication, or active buildings and their energy concepts.

- The idea to incorporate living plants in the façade of buildings gained recently traction in some innovative applications throughout the world. One important driver is enhancing the air quality in cities by reducing the amount of air pollutants and increasing air moisture and oxygen levels. Our interests consider mainly the integration in the façade for low maintenance and long lifetime of the plants.

- Prefabrication of concrete elements aims to lower the price of building while at the same time ensures a higher quality and faster building process. Our research focus is on further integration of prefabrication in the planning process and in developing methods and parts for mass customization of prefabricated elements. Proposals concerning automation at the construction site are also welcome.

- The supply of renewable energy might be increased through the activation of the façade for energy harvesting. Besides photovoltaic cells solar thermal collectors are an interesting and promising approach. Our current research concerns the use of capillary tube mats and heat pumps for façade integrated thermal collectors and the design and dimensioning of the energy system of the building and its integration in district energy systems.

HTWK Leipzig offers skill training opportunities. The attendance of a German Language class will be encouraged. A secondment at the premises of an industrial partner can be organised.

**5. Contact person (name and e-mail address):**

Mr Stefan Wappler  
Email: [stefan.wappler@htwk-leipzig.de](mailto:stefan.wappler@htwk-leipzig.de)

**6. Deadline<sup>1</sup> for considering interests by post-doctoral applicants:**

**1 May 2017**

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<sup>1</sup> Please consider that the preparation of a Marie Skłodowska-Curie proposal requires some time. Fellow and supervisor have to agree on a project and training opportunities for the fellow.