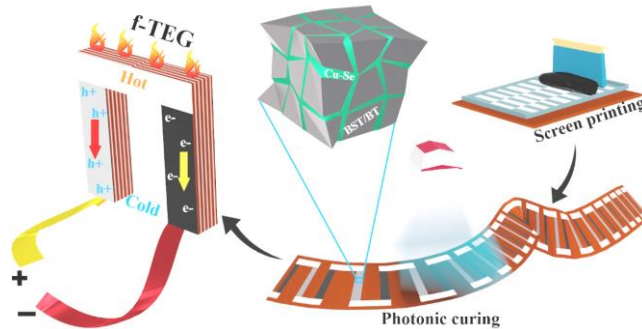


Date: 15.03.2024

## Master thesis / Internship / Hiwi position

### Printed photo-thermoelectric materials for infrared sensing and imaging



#### Job description

Printing technology has emerged as a promising avenue for manufacturing cost-effective and shape-conformable electronic devices. The development of printed thermoelectric (TE) materials holds the potential to produce low-cost shape-conformable devices, overcoming the limitations associated with bulk counterparts. Our Thermoelectric Research Group at LTI is actively engaged in comprehensive research encompassing both experimental and theoretical aspects of TE materials and devices. As part of TE materials research, the group is involved in studying the thermo-transport behaviours of inorganic-based printed TE materials to fabricate high performance printed devices. Our primary objective is to fabricate low-cost, high-performance printed TE devices tailored for energy harvesting and cooling applications.

To further enhance our team, we are seeking interns who can contribute to our work. The selected candidate will conduct a detailed investigation of the TE inks, focusing on developing of TE inks and studying their TE properties. Additionally, the candidate will participate in the fabrication of printed devices using these materials.

#### Qualification

The prerequisite for joining the group is a graduate student in Materials Science, Chemistry and Physics or related disciplines. Good knowledge of TE materials and printing technology is helpful.

#### Application

Send your application with CV to email [mofasser.mallick@kit.edu](mailto:mofasser.mallick@kit.edu)

The KIT attaches great importance to the professional equality of women and men. We would therefore be particularly pleased to receive applications from women. Severely handicapped applicants will be given preferential consideration if they are suitably qualified.

#### Area of research

Printed thermoelectrics

#### Type of work

Experimental

#### Field of studies

PhD related to Materials Science, Physics and Chemistry

#### Starting date

As soon as possible

#### Contact person

Dr. Mofasser Mallick  
Engesserstr 13  
Geb.Nr. 30.34  
Room 013

Telephone:

+49 721 608-45653

E-Mail:

[mofasser.mallick@kit.edu](mailto:mofasser.mallick@kit.edu)