

# HIWI: MECHANICAL CHARACTERIZATION OF 3D META MATERIAL STRUCTURES

## Topic:

The student will work on developing a systemic experiment design for mechanical characterization of meta material based 2D and 3D structures on macro (mm-cm) and micro (~ 100-500  $\mu\text{m}$ ).

## Tasks:

- 3D modelling of the structures using Autodesk Inventor. (Other CAD software are also fine)
- 3D printing of the structures (SLA).
- tensile/compression testing on a UTM and a microindenter.
- Data analysis and presentation of the results.

## Requirements:

The candidate should have basic understanding of material science/polymer science and mechanics. Prior experience of any of the techniques is not required but advantageous. The candidate will work in the lab a lot and would need creative approaches.

## Start:

As soon as possible

## Contact:

Please send your resume and Transcript of records to Gaurav Dave at [gaurav.dave@uni-heidelberg.de](mailto:gaurav.dave@uni-heidelberg.de)