

## Fabrication and characterization of novel gold thin film sensors

### Description

At the IMT, a piezoresistive pressure sensor based on different biocompatible materials is being developed as a long-term implant for cardiovascular measurements. In a first approach, microfabricated biocompatible membranes are functionalized with NTRs (Nanogranular Tunneling Resistor).

In this thesis, novel thin film sensors made of gold will be fabricated and investigated for their suitability for cardiovascular measurements on biocompatible materials.

### Working Areas

- Literature research on microfabrication, piezoresistive thin film sensors, and suitable characterization techniques
- Fabrication of the gold thin film sensors
- Evaluation of the reproducibility of the fabrication process
- Investigation of the sensitivity, resolution and noise of the sensors
- Discussion of the results

**Start:** By arrangement  
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