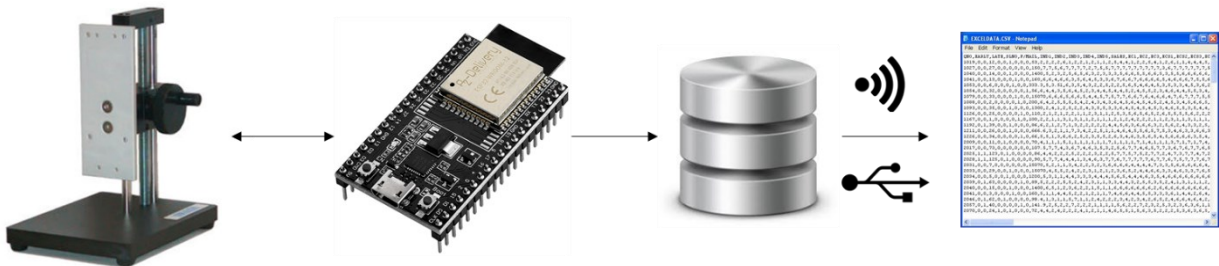## Long-term calendar ageing test bench for pressure sensors based on ESP-32

Project type: ☐ Hardware   ☐ Software   ■ Hardware/Software   ☐ Simulation   ☐ Modelling

Tasks:

- Design and develop a mechanical test bench for mounting the sensors
- Design an analog signal interface using Wheatstone bridge circuit and multiplexer to measure 10 pressure sensors
- Interface the circuit with an ESP 32 for programmable data acquisition
- Develop and interface a storage module for data storage and readout (long term up to 1 year of continuous recording)
- <u>Requirement</u>: the complete unit is stand alone without the need for a PC interface, and the data acquisition can be wireless or using an SD card

Competences:

- Good knowledge of microcontroller programming
- Good understanding of analog circuit design
- Basic knowledge of mechanical design

Contact:

Rajarajan Ramalingame M.Sc.
Professur Mess- und Sensortechnik | Technische Universität Chemnitz
Reichenhainer Straße 70, W209
rajarajan.ramalingame@etit.tu-chemnitz.de

Amoog Lakshmanan M.Sc.
Professur Mess- und Sensortechnik | Technische Universität Chemnitz
Reichenhainer Straße 70, W283
amoog.lakshmanan@etit.tu-chemnitz.de