



Universität Stuttgart

Institut für Feuerungs- und Kraftwerkstechnik
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Ausschreibung

**Masterthesis/
Student
research
project**

Stuttgart, 25.03.2022

Evaluation of sensors for particle matter

Thematic background:

In the recent years the use of low cost sensors has proliferate due to the improvements in sensitivity and affordability. These two reasons could make them a game changer in the future of air quality monitoring and smart cities. Not always, the sensors perform as stated by the manufacture. Therefore, new sensors appearing in the market should be investigated.

Aim of the work:

The aim is to perform an evaluation of three particle matter sensors from the company Tera Sensor. The focus will be in the performance under high relative humidity and comparison of the performance against a reference device.

Method:

- Literature review in the field of low-cost sensors for particulate matter
- Setup for sensors
- Calibration of sensors in laboratory conditions
- Field measurements
- Data evaluation
- Report and presentation

Requirements:

- Work independently, reliable and structured
- Interest in air quality
- Basic knowledge of electronics
- Willing to work with Arduino/Raspberry Pi
- Report in English or German



Start: May/June or under agreement with supervisor

For questions/application:

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