

## Research Internship / Bachelor Thesis

### Development of a wind noise measurement device

#### Description

The collection, analysis and labelling of wind data is of paramount importance in the development of deep learning-based wind noise reduction solutions. If performed manually, these tasks are very time consuming. The main goal of this internship / thesis is to automate these tasks. More specifically, you will develop a stand-alone device to record wind noise, measure the wind speed and direction, and associate these measures to the recorded wind noise. The device will be based on a Raspberry Pi, microphone array, anemometer and wind vane.

You will

1. Interconnect the required hardware modules, and
2. Develop a software framework to record/label/store the wind noise data.

Practical refinements include waterproofing the device.

#### Related topics

- Multi-channel wind noise analysis
- Data collection

#### Prerequisites

- Programming in Python (basic knowledge)
- Basic acquaintance with electronic components

#### Supervisor

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