

## Internship Program at Osnabrück University of Applied Sciences

### Description of lab or research project

	<b>Lab for Metrology, Measurement and Instrumentation</b>
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<b>Title of Project</b>	Air Quality Measurement Particle measurement (especially dust and fine dust in air)
<b>Abstract</b>	Development of devices and execution of measurements for fine dust in the air; measurement of humidity, temperature, pressure and VOC; correction of dependencies of the measured values.
<b>Tasks</b>	Hardware: Development of sensors, including electronics; use of Raspberry PI or Arduino.  Software: Micro-controller programming (Python, HTML, Javascript); application and adaptation of Neural networks; realization of communication between micro-controller and PC, Raspberry Pi programming, calibration of sensor signals.
<b>Requirements</b>	Basic skills in programming, micro-controller programming and/or electronic circuit design, basic skills in optoelectronics and micro mechanic tasks.
<b>Language Skills</b>	English: fluent German: basic knowledge useful, but not re-

	quired
<b>Duration and time period</b>	3 – 6 months in either the summer semester (March – June) or the winter semester (September – February) Specific dates and duration to be agreed upon
<b>Further information</b>	