



Full-Time | TEMPORARY

VILLACH – AUSTRIA

MASTER THESIS – MAGNETIC POSITIONING SYSTEMS (ALL GENDERS)

As part of our Magnetic Microsystem Technologies (MMT) research unit, we are looking for a motivated Master's student. In this Master Thesis project, you will work in a team on magnetic positioning systems from design and assembly to calibration and testing.

Your future tasks include:

- Support of the assembly of positioning systems from digital twin models
- Taking field measurements from 3D magnetic sensors e.g. by operating a 6-degree-of-freedom stage with different magnet/sensor configurations
- Taking field measurements from printed demonstrator devices
- Analyzing measurements, helping with the calibration of demonstrators
- Testing/supporting the development of data inversion algorithms aimed at state detection of magnetic positioning systems
- Support improvement of such systems, investigation of system tolerances and environmental influences
- Collaborate with industry partner and actively contribute to the Chip2Sys program
- Preparation of progress reports and support the development of scientific outputs, e.g. conference abstracts, journal articles

YOUR PROFILE

- Enrolled master student (university in EU) in a related technical field
- Background in physics, mathematics, simulations, magnetics or electrical engineering
- Familiarity with Python as a scripting language for basic physics computations
- Experience with taking measurements from experimental physics/engineering lab courses
- Interest in learning about magnetic computations using Python libraries and learning how to operate a magnet-sensor positioning stage from a Python interface
- Excellent English communication skills

UNFOLD THE FUTURE WITH SAL

- Duration: 6 months
- Diversified research activities with plenty of technical challenges.
- State-of-the-art lab facilities and instruments.
- € 4 per day food allowance in restaurants or € 2 per day in supermarkets.
- Family & kids friendly.

This position is subject to the Collective Agreement for employees in non-university re-search (Research CA). For this position, we offer a monthly gross salary of EUR 1.991, paid 14 times a year.

You can learn more about Silicon Austria Labs here:



Find this position on our website:

[Job opportunity Master Thesis - Magnetic Positioning Systems \(all genders\) at Silicon Austria Labs GmbH](#)