



Practical placement in Greenhouse gas low-cost sensors and machine learning

Greenhouse gases (GHGs) are putting our future at risk. Yet, accurate and scalable measurements of their fluxes—essential for designing effective mitigation strategies—are still lacking. This is where gas sensing technologies play a crucial role.

Currently, reliable data comes from a limited number of expensive instruments, which either provide highly localized measurements or overly broad averages. For this reason, we have not been able to optimize mitigation strategies and global warming continues. To truly understand GHG dynamics, we need distributed networks of low-cost sensors capable of delivering high-resolution spatio-temporal maps of GHG concentrations.

In this Erasmus stay of at least one semester, you will join an active research project focused on developing affordable gas sensors empowered with machine learning to bridge such technological gaps. You will gain hands-on experience in gas sensor development and usage, standard analytical techniques, as well as developing machine learning algorithms, and data interpretation, skills highly valued in both research and industry. Importantly, you will contribute to advancing environmental monitoring tools to empower communities, researchers, and policymakers to take informed climate action.

Duration of the practical placement

- One semester (with possibility of extension)

Start of the placement

- As soon as possible, to be discussed with the contact person at Linköping University

Candidate profile/required skills

- Electronic, computer, and material engineers, or physics and related background in the final stage of their degree

Practical Information

- Working language: English (B2 level)
- Work format: On-site at Linköping University, Linköping, Sweden
- Erasmus+ traineeship funding should be applied for through the student's home university.
- Compensation: No financial compensation from Linköping University

Contact person at Linköping University

- Guillem Domènech-Gil, Associate Professor
Department of Thematic Studies (TEMA), Division of Environmental Change
guillem.domenech-gil@liu.se

Application process

Submit the following to guillem.domenech-gil@liu.se

- CV (max 2 pages)
- Short motivation letter (max 1 page)
- Transcript of records