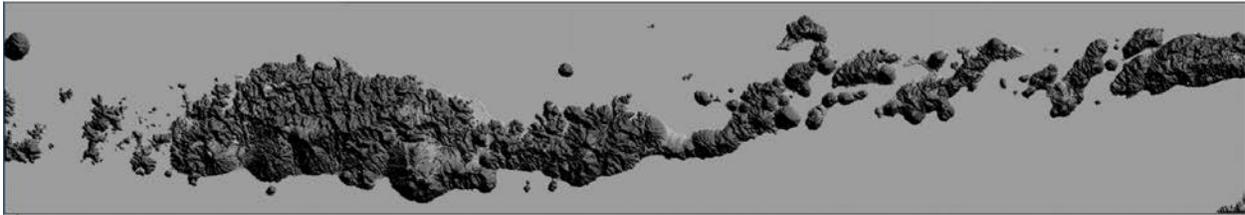


## Internship opportunity in

# Multi-sensor Remote Sensing for Geothermal Exploration in Indonesia



## Background

The department of Earth Systems Analysis of the University of Twente is offering an internship opportunity under its Geothermal Capacity-building programme (GEOCAP) in Indonesia. GEOCAP is an international collaboration between Indonesian and Dutch entities with the goal to develop intimately linked geothermal programmes for education and training, research and subsurface databases. Faculty ITC of the University of Twente is the coordinator of the multi-year project.

As part of the workpackage 2.04 on innovative exploration techniques, ITC is leading a **remote sensing imaging campaign**. Goal of the survey is to acquire airborne remote sensing datasets for part of Flores (and possibly Sumatra) Island for further research into geothermal potential assessment. Currently a combined LiDAR and a surface temperature survey is envisaged which will have to be organized in priority areas that are based on a preliminary, multi-sensor remote sensing data interpretation.

## What we offer

We offer a 6-months internship in a large, multi-cultural, international project environment. You will receive an internship allowance, which varies with your level. You will likely be joining on a short data gathering trip to our Indonesian project partners. We foresee that you may also be actively involved on the ground during the execution of the airborne survey.

This topic could eventually lead to an MSc topic as a follow-up of this internship position.

## Foreseen tasks

You will organize and interpret existing remote sensing datasets and other map resources for Flores and Sumatra Islands. Based on that preliminary interpretation, you will help define follow-up areas for airborne test cases. If time permits you will help with the organization of the airborne survey and work with the airborne data (possibly as part of an MSc topic).

Specifically the tasks will include:

- Travel to Indonesia to liaise with relevant stakeholders (e.g. geologic survey, mapping agencies, partner Universities in Indonesia.)
- Inventorize and organize datasets that are available at these different organizations
- Compile a unified database with all currently available datasets and make it available to the project partners in an organized way (webmapservice?)
- Process and Interpret the available datasets for morphology, geologic structures, lithologies and thermal anomalies.
- Define priority follow-up areas based on results of the preliminary interpretation and geothermal prospect areas.
- Help communicate with the survey company and help organize the survey.

If time permits

- Work on the processing and interpretation of the airborne data

**Prerequisites:**

You should be enrolled in an MSc (or BSc) programme in a natural science at a Dutch University. You should have knowledge of GIS and Remote Sensing concepts and software, and had some exposure to geological and/or morphological image interpretation. Affinity to multi-cultural work and travel is a must.

**Starting date and duration:**

Internship could start as soon as possible and is foreseen for 6 months (or as agreed)

**Contact:**

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