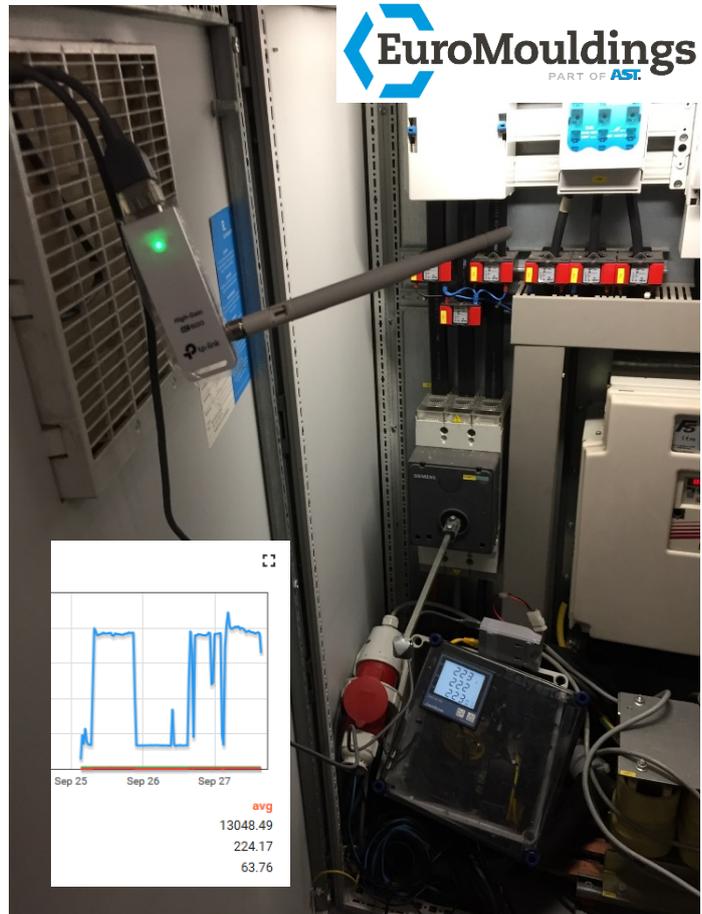


## IOT FOR CONTINUOUS MONITORING OF INDUSTRIAL SYSTEMS

24 hours a day, 7 days a week, EuroMouldings produces blown plastic packaging such as bottles, jerry cans and technical items. To do so, they have reliable machinery and a round-the-clock workforce. However, they are interested in finding out the power consumption of their machines and whether this differs in-between similar machines and different plastics used. In other words, they want to monitor the behavior of their machines.

To attain this goal, EuroMouldings, Door Advies, and the 'lectoraat' Ambient Intelligence have joined forces. Ambient Intelligence is a research group at Saxion which focuses on making environments smart, especially in the domains of safety, sport and smart industry. Door Advies is a consulting company for energy usage.

Currently, the researchers of Ambient Intelligence have installed sensors which monitor the power usage and number of items produced by one machine, using the *Internet of Things* (IoT) framework Thingsboard. This solution works without disturbing the functionality of the machine. Based on this success, we wish to roll out this solution to multiple other machines, with an improved sensor solution.



## TASK DESCRIPTION

Are you looking for a taste of industrial software engineering? Then this is your chance! We are looking for an eager student who can deliver the following:

- A sensor-software solution with improved reliability, expandability, and maintainability;
- Rolling out the designed solution to multiple machines;
- Storage solution for the gathered data, ensuring the data is delivered reliably (for example, in a data lake);
- An easy-to-use monitoring dashboard (in Thingsboard).

## PRACTICAL INFORMATION

- **Student profile:** HBO-ICT ITSM & SE, Applied Computer Science, intern or graduate student. Experience with IoT, Raspberry Pi and Python is a plus.
- **Duration:** February 2020 – July 2020.
- **Compensation:** 230 euro per month (before taxes) when carrying out this assignment at Ambient Intelligence.
- **Contact person:** for more information, contact Jeroen Linssen ([j.m.linssen@saxion.nl](mailto:j.m.linssen@saxion.nl)).
- **More information:** [saxion.nl/ami](http://saxion.nl/ami)