

Waste to Chemicals & Energy Practical or graduation internship

Internship assignment description

Our demonstration pyrolysis plant is constantly researched upon to prove technical and economic feasibility to develop a second version of our WER (Waste Energy Recycling) unit which will be commercially sold to third parties. One of the parts that needs to be looked at in this process is our cooling tower. The cooling tower provides relatively cold cooling water to cool different systems in our unit. Currently we don't know what the limit of our cooling tower is and if the water that is being circulated is enough to cool everything. We want to optimise the current cooling tower to make it future proof and with the data that we collect, make a model that can calculate the cooling capacity based on the cooling requirements of the different systems.

This model can later be used to provide the building criteria for the cooling tower of version two of the WER unit. In this model, environmental factors, and resource (water) availability should also be taken into account. This would mean that there should be an option for open cooling tower and closed cooling tower. This will be part two of the internship.

Graduation tasks:

- **Modelling current cooling tower**
- **Optimize current cooling tower**
- **Making model for future cooling tower depending on cooling capacity of the different system**
- **Taking environmental factors in account**
- **Open and closed cooling tower modelling**

About Waste4ME BV

The company Waste4ME positions itself at the intersection of different industries. Waste4ME is pioneering the plastic recycling industry by giving previously incinerated plastic waste a second life. Our company turns a global environmental problem into low-carbon products and valuable petrochemical products. Our solution also allows implementing sustainable waste disposal techniques and bridge intermittent energy supply in remote locations. WER (Waste Energy Recycling) unit is a mobile waste management tool based on pyrolysis technology. It is designed for tackling waste, where recycling is not feasible and where waste disposal is an issue. Thanks to its mobile nature, WER allows to avoid transport costs, electricity cost, gas boiler cost and gas for a boiler.

Working at Waste4ME

As you gain knowledge and experience in different sectors you can grow within the company. Our team mentality is straightforward and product oriented. You have the freedom to plan your work and set your own milestones in line with the company goals. Additionally, if you want to suggest a different topic and you think you can add value: make a proposal including milestones and catch our attention. We are a growing company and are looking for people with ideas and the mentality to execute selected ideas.

Position requirements

For the position are we looking for the following background:

- Knowledge about humid air calculations
- Excel knowledge for modelling
- Other software knowledge for modelling
- Process experience
- Being able to work in a flexible organisation

Good to have

For the practical execution of the work and filling in with the team do we have additional wishes that can give you a higher probability of being selected:

- Own car
- Own laptop
- Willingness to do more task then only your internship
- Helping out with operating of the WER

Reimbursement

Reimbursement is depending on candidate's qualifications (excluding expenses).

Working Hours

40 hours per week (Negotiable).

Contact

If you are interested, send your application with cv and motivation or even better with your first idea how to approach to Valentin Contin on v.contin@waste4me.com or by phone on +31 6 14321871 or approach Christiaan Huibregtse on c.a.huibregtse@waste4me.com or by phone on +31 6 39136979.