

## Research Internship: Design of a maintenance program

### Introduction

At our company Waste4ME BV we have developed a prototype system for waste reduction and energy generation. This system uses pyrolysis to convert waste into oil, gas and ash and can be used at a local or small-scale. As with all industrial processes, adequate maintenance is required to optimize availability and reliability of the system. Additionally, maintenance is especially important when working with waste streams. The streams vary in composition and may be polluted, putting different types of loads on the components. We have an open internship position for a student to research a what the current possible maintenance strategies are and what can be applied to our unit.



### Internship assignments

**A critical analysis of the current system in the context of maintenance.**

- **List of key points to improve reliability and maintainability of the system;**
- **Identify key process parameters relating to maintenance;**
- **Suggesting design improvements and generalizing equipment;**
- **Is robust and modular and scalable;**
- **Takes in account costs, logistics and inventory;**
- **Can be executed by someone with the level of a car mechanic or similar;**
- **The results meet health, safety and environmental standards;**

### Education requirements:

Thesis level internship for bachelor in the following fields:

- Process technology
- Chemical engineering
- Operational engineering
- Mechanical engineering
- Electrical engineering
- Installation engineering

### Profile requirements

- Dutch or international with an interest for circular economy;
- Ability to express yourself clearly, correctly and to the point in the English language;
- Ability to define and deal with uncertainties and form a vision;
- Basic knowledge of core maintenance terms;
- Practical mindset and ability to implement their design;

## About Waste4ME

The company Waste4ME can be described as an intersection between different industries. These industries are derived from the in- and outputs of our WER-unit being waste, gas, oil and ashes. As you gain knowledge and experience in different sectors you can grow within the company. Our team mentality is straightforward and product focused. 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 grab our attention. We are a growing company and are looking for people with ideas.

## Contact Details

If you are interested, send your cv and motivation letter, or even better accompanied with your first idea on how to approach the subject, to [v.r.toepoel@waste4me.com](mailto:v.r.toepoel@waste4me.com)