Master Thesis at Orbital Systems

About Orbital Systems

At ORBITAL SYSTEMS, everything we do is based on the belief that the world needs a new paradigm for daily water usage. Spun-out of an academic partnership with NASA, we are an award-winning water-tech company based in Malmö, Sweden with operations in the U.S. Our Oas Shower reduces the traditional 100L shower down to approximately 10L, delivering a reduction of up to 90% in water and 80% in energy use.

Founded by Mehrdad Mahdjoubi and backed by world-class investors, including Skype Founder, Niklas Zennström, and executive leaders from Tesla, Sony and the like. Today, we are one of the fastest growing clean-tech companies with a 60+ team and expanding. We pride ourselves on being a diverse workplace and welcome new colleagues with different backgrounds, perspectives and a clear passion for transforming the way we use water today.

Implementation and optimization of a self-learning, model-based controller on a recycling shower

Scope

The scope of this master thesis is to create, implement, optimize and test a self-learning regulator controlling the system states of the Oas Shower. The idea is to use the result of the master thesis as a potential starting point from where the proposed solution can be industrialized and implemented into the Oas product.

The Oas is a complex system consisting of multiple sensors and actuators which are used to control and monitor the system states. The goal of the system is to create a positive and stable user experience while at the same time recycling as much water as possible. Included is also to examine which sensors and actuators could be integrated into the controller and how the current system could be improved further in future version.

A final demonstration and presentation are required where the master thesis students reports their findings and gives advice on how to proceed.

Requirements

Orbital Systems is searching for engineering students looking to write their master thesis in the Automatic Control field.

• Applicants are encouraged to apply as a group of two
• Basic programming experience is a requirement
• Advanced courses in the Automatic Control field is a requirement
• Individual drive and a desire to independently learn and apply new knowledge

How to Apply

Each applicant needs to include a short personal letter and CV. If you have a potential master thesis partner, please mention this in the application.

Send your application to:
masterthesis@orbital-systems.com

CERTIFIED SPACE TECHNOLOGY