



**INTERGO**  
International Centre for Safety  
Ergonomics & Human Factors

## Master's internship at Intergo: Human factors in remote operation

For a project, we are looking for a master student to assist with the preparation of specifications for Human factors in remote operation in general and for automatic train operation specifically.

### The assignment

#### What to do?

The current trend is towards an increase in remote operation. This applies to the operation of locks and bridges, drilling platforms, subways, and recently also ships and trains. In the coming period, we will be working on a major assignment on automatic train operation, in which we will be drawing up the ConOps (concept of operations) and user requirements. You may think "but with automatic trains, there is no human presence at all, is there?" That's right, but there will be a remote control centre from which the trains will be operated and monitored. If something goes wrong, action will have to be taken from the control centre. Often, there is also a trial period, during which people are still present. For this, too, a clear division of tasks and responsibilities must be made.

#### How?

Your assignment is twofold:

- 1) Do a literature study with a broad perspective on the human and organisational factors that play an important role in remote operation. This is not limited to automated trains but is cross-industry. You look for what a remote operator in general needs in order to successfully manage and monitor the process. And what requirements must be imposed on the organisation and working environment.
- 2) Based on this literature review, you will support our team working on the automatic train operation. This will go back and forth: the team asks questions, which you answer with (additional) literature research, and you come up with ideas. You can play a supporting role in this project. So, you will see the results of your work immediately.

#### When do we do that?

October 2021 to January 2022.

### About Intergo

Intergo, located in Amersfoort, is a human factors consulting and design firm. We have over 50 years of international experience and a team of certified human factors consultants and designers. We apply our in-depth knowledge of human behaviour to help companies perform successfully. This ranges from advice on work processes and innovations to the design of button operation and screen layout.

### Your role in the internship

- As part of our remote operation team, you will carry out targeted literature research into human factors in remote operation. You will bring in the gathered knowledge so that the team can process it in concrete requirement specifications for automatic train operation.
- Besides the literature research, you perform other supportive tasks for the remote operation team.

### You...

- Study design for interaction / psychology / human factors or comparable in the master's phase.
- Have experience with/interest in literature research and working in multi-disciplinary teams.
- Have an affinity with innovations in the field of automation/autonomous control processes.
- Are available for 4-5 working days/week.
- Have a very good command of English. Command of Dutch is an advantage.

### We...

- Support you with our experience in researching, specifying, and designing HMI, working environments and (automated) work processes.
- Help you to learn the world of human factors.
- Are eager to learn new skills from you.
- Are a multidisciplinary, dynamic team of colleagues.
- Offer fulltime internship fee of €350/month (incl. travel costs).

### Contact us!

Are you interested in this internship? Please send an e-mail with your motivation letter, CV and portfolio to Melcher Zeilstra at [zeilstra@intergo.nl](mailto:zeilstra@intergo.nl).

Also if you have any questions, feel free to contact Melcher at +31 6 5492 3307.

*We like to hear from you!*

