



# QUALIFIED MEDICAL ENGINEER

## Two year post-master designer program with companies and healthcare institutes

# TU/e

EINDHOVEN  
UNIVERSITY OF  
TECHNOLOGY

**Is your goal to design new technological solutions for the best possible care? Are you looking for a (temporary) designer i.t. who can test and implement your innovation in healthcare? Or do you have an employee who is ready for a next step to become a professional in this area? The two-year post-master program Qualified Medical Engineer would be a good fit!**

### What is the post-master program QME?

The post-master program Qualified Medical Engineer (QME) of the Eindhoven University of Technology (TU/e) is a two-year designer program. This program fulfills the growing need of professionals working on the interface between daily clinical care and technological innovation. During the program trainees work on relevant projects from day one, in parallel to an extensive training program of courses and workshops. The program is recognized by the Dutch government and leads to the degree of EngD (Engineering Doctorate).

### Why this program?

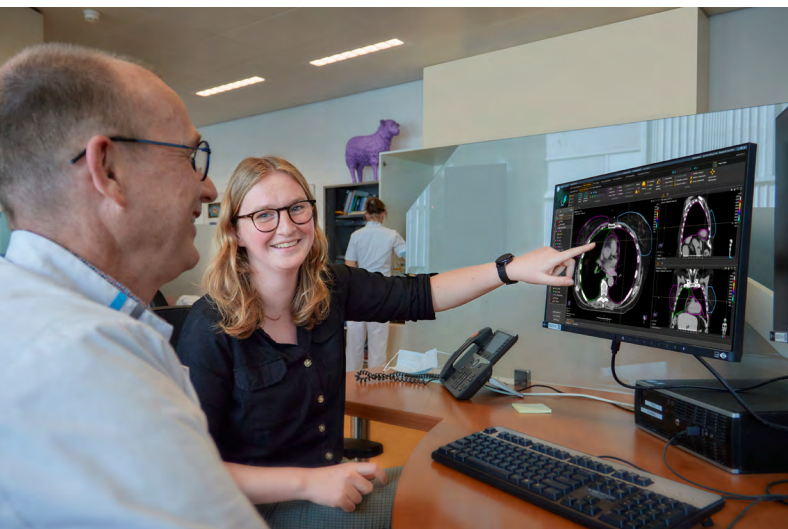
Technology plays an ever-bigger role in healthcare. Healthcare professionals should be able to rely on a high quality, efficient and safe implementation of technology. Not only single devices, but the whole system should be designed, tested and implemented. The QME program is designed to support this process, both for healthcare institutes and for companies.

### What is the structure of this program?

Our vision is that people are best trained in daily practice. Thus, the program is designed such that trainees carry out projects from day one and spend most of their time in healthcare institutes and companies working on projects. In parallel they get trained by QME. The trainees receive guidance from both the company/healthcare institute and the university.

### What is the content of the major design project?

Next to smaller projects, trainees carry out one major design project. This project should have a clear link with (clinical) cure and care. The trainees apply a systematic and structured approach and deliver concrete results, from a prototype or 'proof of principle' to actual implementation, for instance in a pilot clinical study (depending on the overall goals). On this design project the trainee will be evaluated by a formal committee.



QME Nienke Bakx and her supervisor Coen Hurkmans at Catharina Hospital Eindhoven (CZE). Nienke received her EngD Cum Laude.  
Photo Jarno Verhoef (CZE).

Coen Hurkmans: "The QME is capable to translate new scientific insights into clinical innovations. She can also put these into practice within a team."

Frans van de Vosse (TU/e): "The program QME is focused on the patients of today, not only on the patients of tomorrow."

# QUALIFIED MEDICAL ENGINEER

## What are the benefits for your company to participate in this program?

- Practical solutions for complex questions in healthcare.
- A motivated (temporary) employee with a significant amount of background knowledge and skills.
- A network to the university, healthcare institutes and other companies. And through the courses to many other organizations and professionals.

## What about the costs?

Candidates apply for a training position:

- the trainee is appointed for two years in your company (or at the university/healthcare institute, depending on the funding).
- the costs of the training program are covered by TU/e (QME).

## How are candidates selected?

Candidates should have a solid academic background. Candidates are selected in a joint procedure between the company and the university (and sometimes also a healthcare institute). The final say in the procedure is with the company. The program is also open for existing employees, for whom the program is a good next step in their career.

## What is the language in this program?

The Dutch language is the professional language of healthcare in the Netherlands in general, so trainees in this program must be able to fluently communicate in Dutch (both oral and written, level C1 or C2). Furthermore, they can also communicate very well in English, so that they can also have non-Dutch-speaking supervisors and - whenever expected - can write the project documentation in English.

## Are you interested?

If you are interested a next step is to discuss your needs, so we can establish whether there is a good fit. Please contact us.

QME website: [tue.nl/qme](http://tue.nl/qme)

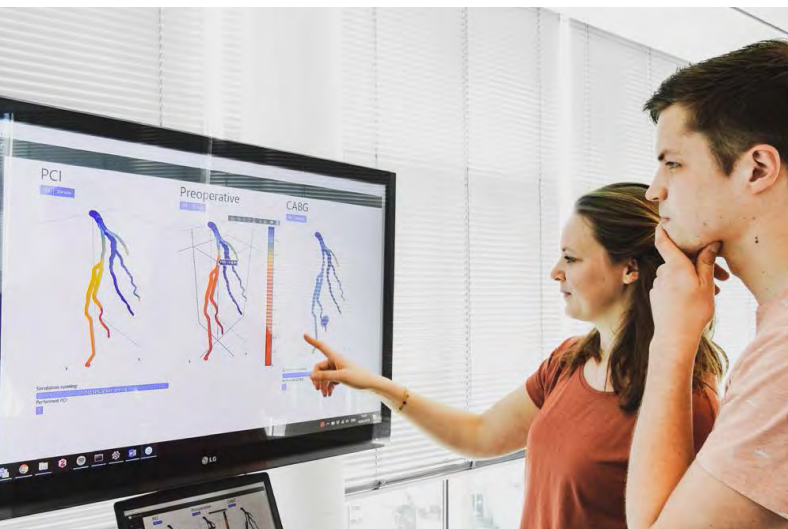
QME office: [smpee.qme@tue.nl](mailto:smpee.qme@tue.nl)

Scientific Director: Frans van de Vosse [f.n.v.d.vosse@tue.nl](mailto:f.n.v.d.vosse@tue.nl)

Director: Ward Cottaar

Program Manager: Ivonne Lammerts [i.m.m.lammerts@tue.nl](mailto:i.m.m.lammerts@tue.nl)

Other Supervisors: Alina van der Giessen, Beatrijs van der Hout, Michaël Lansbergen, Teun Minkels.



QME Tim van den Boom and QME Bettine van Willigen; they received the EngD TU/e Thesis Award for their design project at LifeTec Group and Catharina Hospital Eindhoven.

Supervisors Marco Stijnen (LifeTec Group) and Pim Tonino (Catharina Hospital Eindhoven): "Tim and Bettine have worked well together in this project, with effective interaction with all stakeholders of LifeTec Group, Catharina Hospital Eindhoven and TU/e. In their project work, they always had to strike the balance between what is ideal for clinicians versus what can AngioSupport actually deliver, and what is computationally possible. We are proud that this ultimately resulted in a first working prototype and the TU/e EngD Thesis Award!"

photo: SMPE/e © BvOF [Bart van Overbeeke Photography]