



At the start of the course, we had to set goals for ourselves and I was razor-focused on one thing: further improving my ability to creatively express myself through technical art. I'm really proud of what we showcased during the final presentations; it felt like the whole project came together at the last moment. And I'm excited to continue working with this team as we progress the project towards the Dutch Design Week. I'm leaving this course with more confidence in my ability to tackle technical challenges, even if they look hard at first. And confidence that if you don't know something yet, it is okay to rely on your ability to quickly learn those new things.

# SIGI VAN LINDT Student of ISP: innovation through art & design

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What do a solar camper, an artificial heart, and a firefighting drone have in common? They are all created by engineers of the future. At TU/e innovation Space, engineers of the future work on urgent societal matters through real-world, open-ended challenges from industry, government and society.

These societal challenges are complex and cannot be solved by selecting a clever technological solution from a single field. For example, how do we ensure clean, affordable energy? Sufficient housing? Food for all? And how can we age healthily, as life expectancy increases?

These challenges require creative solutions based on collaboration and communication. So, these engineers of the future need to be able to pitch their ideas, deal with uncertainty, and work in interdisciplinary teams with an entrepreneurial mindset.

At TU/e innovation Space, we enable students to become engineers of the future, through Challenge-Based Learning (CBL). You learn by solving real-world challenges in an interdisciplinary team, with students from different departments.

### **EDUCATION**

TU/e innovation Space offers two master's courses that are available to all master's students from every department. In these courses, you can decide which challenge you want to work on from a selection presented by companies, societal organizations, designers and artists. This gives you the opportunity to challenge yourself with real-life projects, gain experience in teamwork, work within an interdisciplinary group, work closely with professionals, and use the extensive prototyping facilities.

## ISP: innovation & entrepreneurship processes (1ZM150)

This semester-long course focuses on CBL in interdisciplinary project teams, working on open-ended assignments in close interaction with high-tech companies and societal organizations.

It combines the design and engineering of a product, service or system with new business development. There are no lectures; the course focuses on studio-style group work, self-study and personal and team development. Several out-of-the box workshops will be given, such as on visual thinking, book-a-thons, pitching, dare-to-fail, and use of tools. You are in charge of your learning process.



### ISP: innovation through art & design (1ZM250)

In this semester-long course, you choose an open-ended challenge with both technology and design/art aspects. With your interdisciplinary team you determine the goal, resulting in concepts, prototypes and/or products that will sometimes be exhibited. You will take tours and receive coaching, workshops and (customized) guest lectures by designers/artists, scientific staff and other professionals.

By learning abstract, conceptual and speculative thinking skills, you will develop competences to fully operate as an engineer of the future, ready for tomorrow's unimaginable challenges.



### **FACILITIES**

At TU/e innovation Space, you can make your ideas a reality. We have several workshops with modern equipment where you can shape your ideas under supervision or following instruction. In our labs, you can work with 3D printers, robot arms, laser cutters, sawing and painting capabilities, lathes and virtual-reality equipment to further develop your prototypes.



### **COMMUNITY**

At TU/e innovation Space, we organize events such as the TU/e Contest, in which teams of students pitch their innovations for education and business. Alongside the opportunities for work on prototypes, networking and personal/ professional development, you can participate in competitions to win a sum of money. With this money, teams can take the next step as a start-up company. For members of student teams, we organize workshops with experts from inside and outside of TU/e, through which they can further develop their competences. Examples include prototyping, marketing, ethics, law and presentation skills.





I followed ISP innovation & entrepreneurship processes to participate in a real-life project and collaborate with students from other departments. Working on an open-ended challenge was a new experience for me. Additionally, the 'going out of the building' principle was unique; something I hadn't learned in any of my other bachelor's and master's courses. It was very rewarding to be in charge of my own learning, and the continuous coaching resulted in a rapid learning curve. The fact that our challenge revolved around making TU/e more sustainable and that we could directly see the impact of our project added significant value for me. If you want to improve your teamwork and pitching skills, I would highly recommend taking this course.

#### MEREL LAARHOVEN

Student of ISP: innovation & entrepreneurship processes