

 TU/e INNOVATION
SPACE

from dream
to demo
to impact



Join the
ISBEP Info
event on
May 12

How to become the engineer of the future?
Work on your Bachelor End Project at TU/e innovation Space
and choose between 10 real-world challenges!

Every semester, you can choose to do your Bachelor End Project at TU/e innovation Space (ISBEP). Within ISBEP you get the chance to:

- Choose between 10 real-world challenges from university, companies or student teams.
- Work within an interdisciplinary team.
- Get inspired by TU/e innovation Space coaches and workshops.
- Learning-by doing in the Matrix building with prototyping and co-working facilities.
- Earn an additional 5 ECTS.

About the course

- The course is scheduled in Timeslot D, both in Q1+Q2 and Q3+Q4.
- You will be assessed for 5 ECTS for ISBEP Learning Outcomes by a coach of TU/e innovation Space. Next to that you will be assessed by a teacher of your own department for the BEP Learning Outcomes (e.g. 10 ECTS).
- The course is for graduating bachelor students (except Computer Science, they can do the ISBEP as elective (5ECTS)).
- Entry requirements are the same as entry requirements for your regular BEP.

More information on ISBEP?

- Come to the ISBEP Info event on May 12 from 12.35-13.25h.
- You can sign up for this event through the TU/e innovation Space Eventbrite page until May 10.
- If you have any questions, send an e-mail to isbep.innovationspace@tue.nl.



Scan for more information on the challenges, deadlines and registration.

CHOOSE BETWEEN THESE 10 REAL-WORLD CHALLENGES

No water – no coffee

Rwanda's top agricultural export is coffee, produced by 500,000 farmers. These farmers face a significant water management challenge due to their reliance on large water streams. This challenge focuses on finding solutions for sustainable water management to improve the local livelihood of Rwanda's farmers and other citizens.

For students from AT, AUBS, EE, SI, IE



Advancing the sun simulator setup

Light is essential for people's wellbeing. Since we spend 90% of our time inside, our indoor spaces should allow sunlight in. A solar simulator on the TU/e campus shows the benefits of natural light indoors. However, it's outdated, and there's a need for new ways to demonstrate its effects physically. In this challenge you will work on new and existing components of the simulator.

For students from AT, AUBS, DS, EE, ID, IE, AP, AM, ME



Switch yard inspection

CORE is, in cooperation with ProRail, automating rail yard inspections using a Boston Dynamics Spot-robot. This robot can collect data on dangerous substances leaking from containers, the presence of (un)authorized personnel and discrepancies between maps and reality. The robot operates partly autonomously and partly human-controlled, but what is best way to do this?

For students from AT, AUBS, CS&E, DS, EE, PT, ME



Automatic cassava peeler Indonesia

Fairtrade Original collaborates with Indonesian farmers that grow cassava, the main ingredient for krupuk. The time-sensitive process requires peeling large cassava roots within 24 hours of harvesting to make tapioca flour. However, the labour-intensive hand-peeling process and shortage of labour often result in preventable losses. An efficient solution is needed.

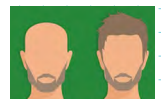
For students from AT, EE, PT, IE



Next gen hairscan

Losing hair due to a condition can affect one's self-esteem and cause depression. Although treatment is available, it does not work for everyone yet. That's why in this challenge you work towards a technological system that can make a reliably (and periodically) scan of the state of (a piece of) the head.

For students from AT, BME, EE, ID, MST, PT, IE



Quetal

The elderly who live independently face daily struggles like healthy eating and physical movement. Early detection of problems helps in providing predictive care to ensure independent living. A collection of sensors placed in their homes can track behavior and alert caregivers. The challenge is to help Van Mierlo Ingenieursbureau with providing independent living elderly comfort, and not a feeling of being watched.

For students from AUBS, CS&E, DS, EE, PT, IE, ME



Classification of robot pickable products in logistics

Every day, Bol.com delivers over a million packages in the Netherlands, requiring items to be picked from warehouses. Vanderlande's Smart Item Robot can pick 60-90% of all package types, but human workers must intervene for the rest. The challenge is to classify pickable items and explore ways to automatically classify a set of over 50,000 items to improve efficiency.

For students from CS&E, DS, EE, ID, PT, IE, ME

VANDERLANDE

Ocean bound plastics

Eliminate virgin plastics by developing a sustainable and circular BLUEWAVE® value chain for ocean-bound plastic. This project involves choosing an innovative product that can have a significant impact and be genuinely circular. You will investigate its entire value chain, including design, production, transport, legislation, and waste management, while keeping the entire life cycle in mind.

For students from ID, PT, CE&C, IE, ME

archwey

Warm technology for people with Dementia

People with dementia are often given tools that are supposed to enhance their lives, but they are often pretty 'cold' and static. In this project, you will work on groundbreaking and innovative examples of warm technology that have a meaningful impact on the lives of people who suffer from dementia and their loved ones.

For students from AUBS, CS&E, DS, EE, ID, PT, IE



Energy transition

The demand and supply of electricity do not often match, overloading the network as a result, while storage capacity is not used. This makes electricity expensive. In this project, you will focus on the energy system of a house/street and find sustainable solutions that enable matching of supply and demand.

For students from AT, CS&E, EE, PT, CE&C, SI, IE, AM, ME

neways