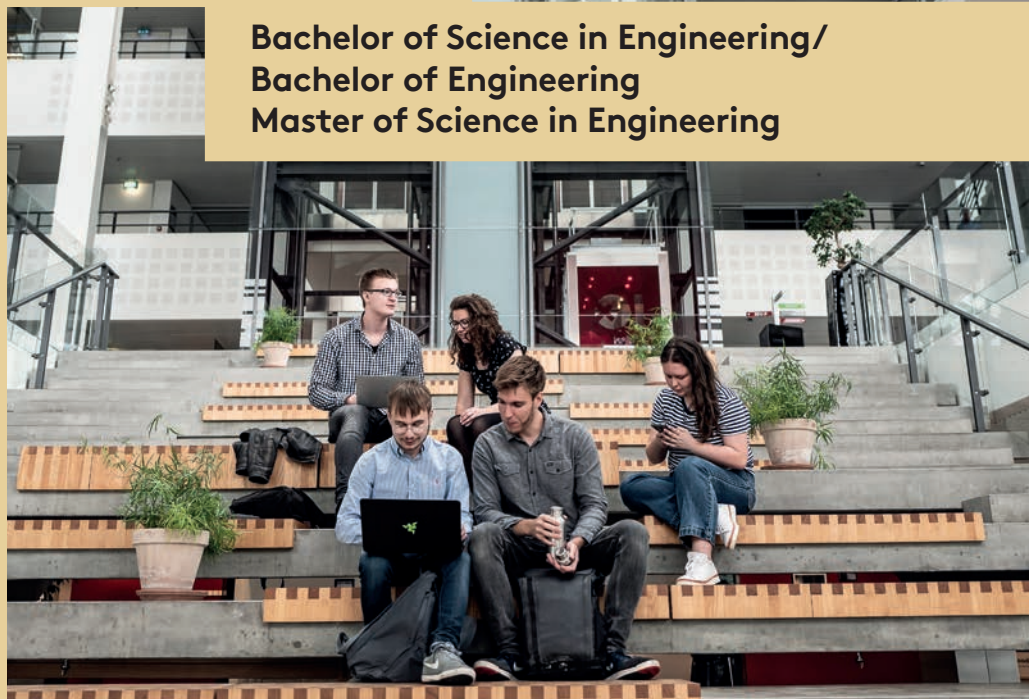


# Electronics

Bachelor of Science in Engineering/  
Bachelor of Engineering  
Master of Science in Engineering



sdu.dk/eng\_sonderborg

As an electronics engineer, you will develop electronic systems in a variety of areas, such as the automotive industry, industrial installations, energy control, medical technology or autonomous systems.

You will study analogue and digital electronics, modelling and simulation techniques as well as software development. You will gain valuable skills in teamwork and collaboration with businesses. Our English study programme is your best start for a career in global companies and markets.

## Your study programme in Sønderborg

- Taught in English
- Competences for global markets
- Projects with companies
- More than 50% international students
- Scandinavian lifestyle



## Your bachelor programme

You will learn in a personal environment, in small study groups and with our state-of-the-art equipment. An excellent student-to-faculty ratio enables you to gain individual experience and success in your studies.

Our international degree programme Electronics is taught entirely in English. On the programme, you will acquire language and social skills for a job in global companies and for worldwide cooperation with customers.

After completing your studies, you will receive a recognised Bachelor of Science in Engineering degree (6 semesters) or Bachelor of Engineering degree (7 semesters including an internship semester at a local company) and qualify for a master's degree in Denmark, Germany or worldwide.

### Real solutions for real projects

At SDU Sønderborg, there is a long tradition of cooperation between students and exciting high-tech companies.

Globally active businesses from the Danish-German region will enable you to discover and tackle real-life tasks in industry as part of your semester projects in fields such as robotics, renewable energy or automation.

Learning on projects will be at the heart of your study programme. In each semester, you will get a chance to apply the theory you've learned in real-life projects. This is how you will gain the skills of project management, team building and creative problem solving. You will also have access to our state-of-the-art technical equipment on campus.

# Your master programme

The programme focuses on three academic fields: Power electronics, embedded systems and integrated application centred on industrial applications.

## **Power electronics**

The world's collective energy consumption is skyrocketing which has led to increased focus on the need to convert energy production from the use of fossil fuels to renewable energy, for example in the form of sun and wind energy. *Power electronics* is the key to new sustainable energy solutions.

The use of electric energy conversion is increasing as the evolution of power electronic components is undergoing fast development. In that context, the fundamental understanding of the reliability of the active and passive components is becoming more and more important for modern power electronic systems and is therefore a main research and educational field in the SDU Electrical engineering programme.

## **Embedded systems**

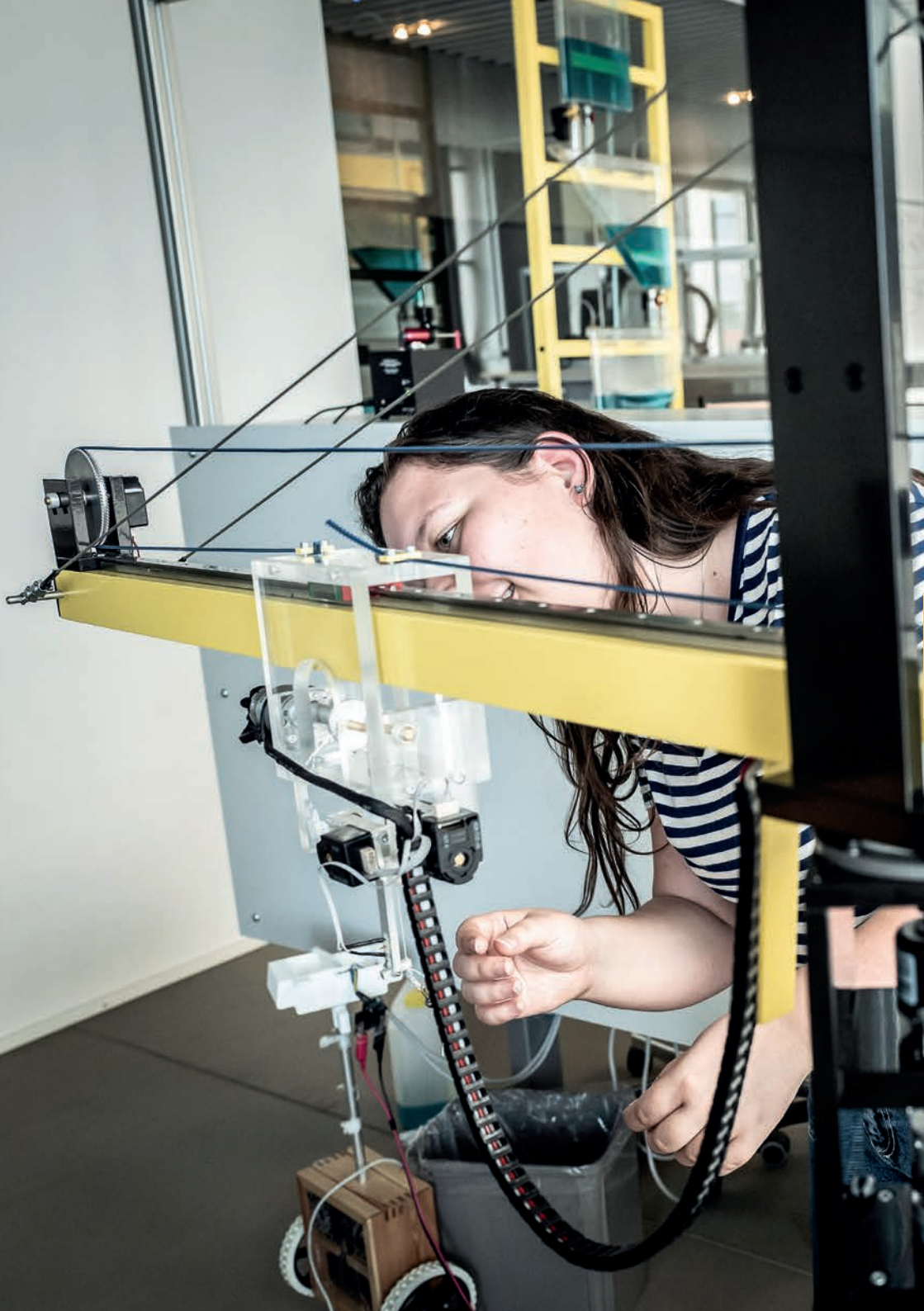
The second part of the programme is *embedded systems* which are found in nearly all electronic equipment and smart solutions. To add to future products and services intelligence, electronic systems are also embedded. Embedded systems are found everywhere and are used in all market sectors such as energy, health care, environment, agriculture, communication, entertainment, textiles, transport, logistics, chemistry, food and materials.

## **Integrated application**

The third part is *integrated application* which is the combination of power electronics and embedded systems. This is used, e.g., for controlling the rotation speed of wind turbines to produce the maximum power when converting energy from solar panels to power, in space crafts and satellites for converting energy from solar panels, fuel cells and batteries and every day in industrial products such as televisions, ovens, cars, watches, drones, power supply and robots etc.

## **No tuition fees**

Citizens of the EU/EEA/Switzerland are exempted from semester and tuition fees.





# SDU Sønderborg Engineering programmes

3,5 years

BEng in Electronics

BSc in Electronics

MSc in Electronics

BEng in Mechatronics

BSc in Mechatronics

MSc in Mechatronics

BSc in Engineering,  
Innovation and Business

MSc in Engineering,  
Innovation and Business

3 years

5 years

# Your application



## Entrance requirements for the Electronics bachelor

To be admitted to the Electronics bachelor programme, you need a **qualifying examination**.

Furthermore, you must meet the specific entry requirements:

- Mathematics on high level (Danish A-level)
- English on intermediate level (Danish B-level)
- And one of the following courses:
  - Physics - Danish B-level
  - Geoscience - Danish A-level

For more information, see the websites: [sdu.dk/bsc/electronics](https://sdu.dk/bsc/electronics) and [sdu.dk/beng/electronics](https://sdu.dk/beng/electronics)

You can apply online from 1 February. Your application must be submitted online by **15 March**.

You can submit your final grade certificates later.

If your application is successful, you will receive a confirmation of your place on the course by the end of July. The course programme starts on **1 September** with opening events.



## Entrance requirements for the Electronics master

To be admitted to the Electronics master programme you need:

A bachelor's degree in Electronics, Electrical engineering, Robot systems, or Physics and Technology.

Other applicants with a similar bachelor's degree will be considered if their academic qualifications correspond with the bachelor's degree mentioned above and may be accepted based on individual assessment.

For more information, see the website: [sdu.dk/msc/electronics](https://sdu.dk/msc/electronics)

You can apply online from **1 January**. Your application must be submitted online by **1 March**. Non-EU/EEA citizens must submit their application by **1 February**.

You can submit your final grade certificates later.

The city of Sønderborg is located in Southern Denmark on the banks of Flensburg Fjord and the Baltic Sea. The city is a perfect setting to try out the Scandinavian way of life, offering a combination of a lively student environment and great quality of life. Forests, beaches and the sea provide for a wide range of leisure opportunities and an ideal balance of studies, relaxation and fun.

On Sønderborg campus, you will encounter students from all over the world. Over 50 % are international students, studying at three faculties. They make the campus a particularly open and inspiring place.

### **Living in Sønderborg**

With your admission on the programme, you will get a guaranteed place in the halls of residence, so that you can concentrate on what really matters from the very start: getting on with your studies and making new friends!

1. Discover the electronic development process
2. Build industrial electronics
3. Develop intelligent dynamic electronic systems
4. Develop systems with signal processing and power electronics
5. Experts in teams, digital interfacing and reliable systems
6. Bachelor project and further specialisation

*Overview of topics per semester (6 semesters)*

## **Life in Scandinavia**





In Sønderborg, successful technology companies have been working with students for many years. Globally active companies from Denmark and Germany such as Danfoss, Linak or LEGO have been investing in a new generation of engineers with great dedication and enthusiasm.

### **Bridges into professional life**

You will have numerous opportunities to work together with businesses during your studies as part of semester projects, practical assignments, engineering internship or Bachelor thesis projects.

University provides you with a job database and organises regular events where you can get to know companies. This makes your first steps towards your exciting career so much steadier!

**“The programme in English opens the door for me to study and work all over the world!”**

*Tamara from Flensburg studies at Sønderborg*

**Start your career**





## First job guarantee

Local companies from Southern Denmark and the University of Southern Denmark have joined forces to create a unique *first job guarantee* scheme that offers new graduates 6 months employment, if they have not already landed their first job.

The scheme goes into effect for students that start their BEng or MSc of Engineering degree at the Faculty of Engineering at SDU Sønderborg from September 2020.

However, to be eligible for the scheme, three mandatory requirements apply:

- You must collaborate with a company on a project during your studies
- You must complete your degree without delay
- You must acquire Danish language skills equivalent to level B1 on the CERF scale.

You will get in touch with local companies throughout your studies during, e.g., matchmaking events, business lunch and various projects.



LINAK  
Are you looking for a meaningful job?

miniBOOSTER  
PURE from  
E systems

Weight & M  
• Withstand  
• Rough  
• High  
• Cutters &  
• Bolt Tight  
• Torque  
• High

## Campus Sønderborg: Study and live by the sea!

### Questions and advice

Jakob Kjelstrup-Hansen is Head of Electronics.

Jakob will be happy to answer your questions concerning the course:

[jkh@mci.sdu.dk](mailto:jkh@mci.sdu.dk)  
T +45 6550 1685



## Visit us at SDU Sønderborg!

Visit us at the **Student for a day event on Sønderborg campus**. You will be greeted by German students. They will show you the university, technical facilities and project rooms and talk about student life on campus.

You will be able to sneak into lectures and receive personal course advice.

Just let us know the day when you would like to visit by sending an e-mail to: [engineeringsonderborg@tek.sdu.dk](mailto:engineeringsonderborg@tek.sdu.dk)

Or meet us in February at the **Open Day** event. You will get information on all courses in English at SDU, plus exciting workshops and a city tour.

Further information and registration here: [www.sdu.dk/sto](http://www.sdu.dk/sto)