



**Start your career**

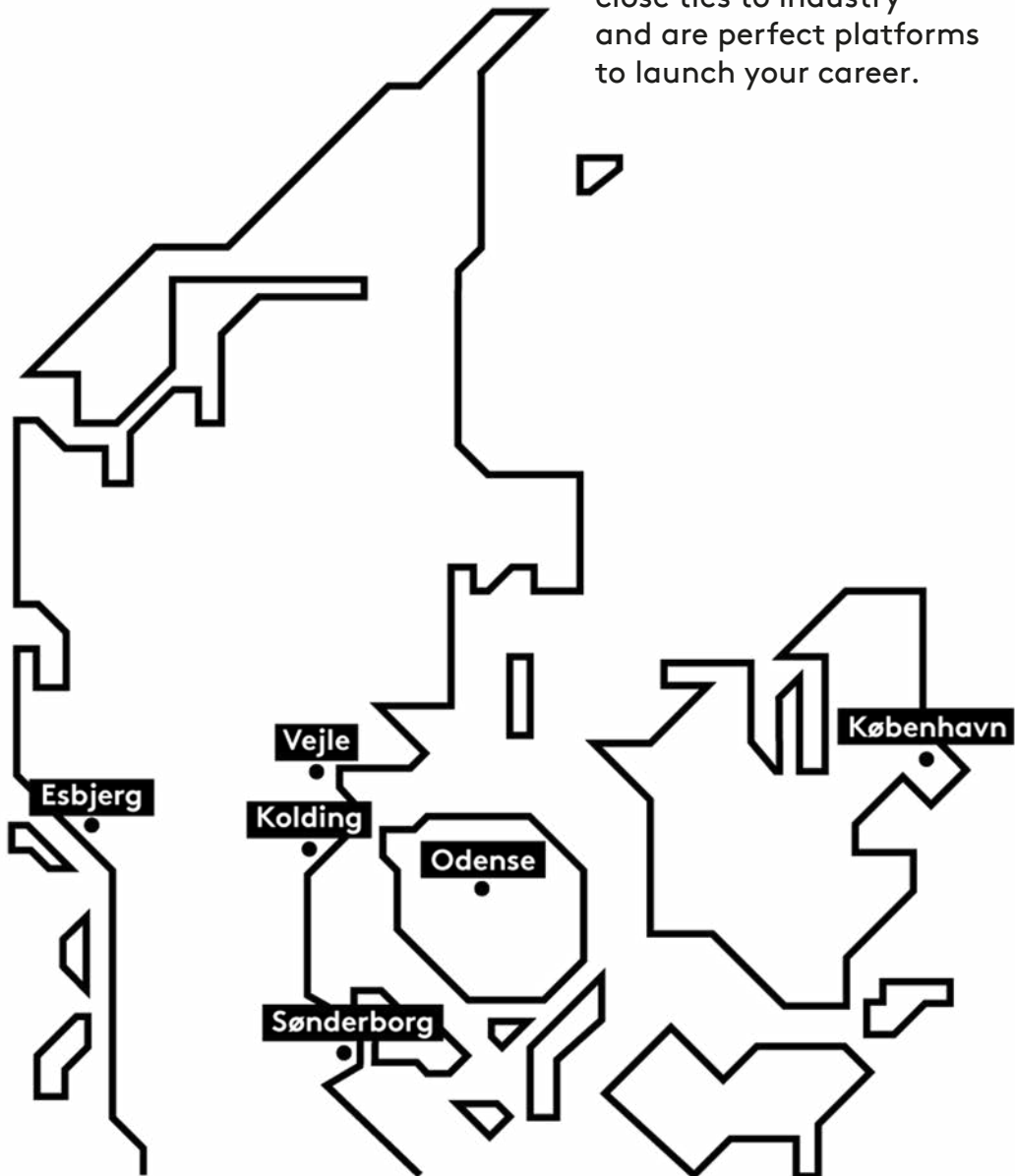
with a

# **Master of Science in Engineering**

at the University of Southern Denmark

The University of Southern Denmark consists of six campuses. Our Master of Science in Engineering programmes are available in Sønderborg and in Odense.

Both campuses have close ties to industry and are perfect platforms to launch your career.



# What can you study?

- 12**      **Chemical Engineering and Biotechnology**  
(Odense)
- 14**      **Electrical Engineering**  
(Sønderborg or Odense)
- 18**      **Engineering, Innovation and Business**  
(Sønderborg)
- 20**      **Engineering Physics**  
(Sønderborg or Odense)
- 24**      **Environmental Engineering**  
(Odense)
- 26**      **Mechanical Engineering**  
(Sønderborg)
- 28**      **Mechatronics**  
(Sønderborg)
- 30**      **Operations Management**  
(Odense)
- 32**      **Product Development and Innovation**  
(Odense)
- 34**      **Robot Systems**  
(Odense)
- 36**      **Software Engineering**  
(Sønderborg or Odense)
- 40**      **Supply Chain Digitalisation**  
(Sønderborg)

# Good to know

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# Become a Master of Science in Engineering

A master's programme is the continuation of your bachelor's studies. During your master's studies you specialise within your field, and you learn to use your academic knowledge to solve specific industrial problems.

To become a Master of Science in Engineering at the University of Southern Denmark, you need a completed Bachelor of Science (BSc) or a Bachelor of Engineering (BEng) degree.

EU-applicants can choose between two types of master's programmes: the regular Master of Science in Engineering and the Industrial Master of Science in Engineering.

Both programme types give you the academic title *Master of Science in Engineering*.

## What's the difference between the regular master and the industrial master?

### Master of Science in Engineering



- 2 years full-time study (120 ECTS)
- Right to SU (for EU citizens)



### Industrial Master of Science in Engineering



- 1 year full-time study (60 ECTS)+
- 2 years part-time study (2 x 30 ECTS) combined with relevant company work (paid like an engineer)
- Only right to SU during the first year (for EU citizens)





## Industrial master

- start your professional journey as you pursue a Master of Science in Engineering

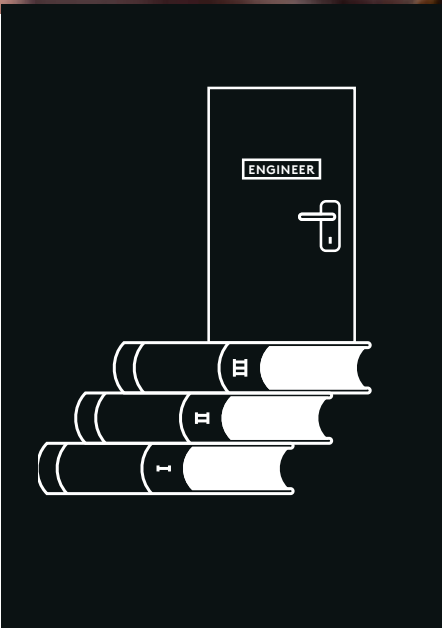
**MSc in Engineering programmes offered as industrial master programmes as of 2026**

### **Odense**

- Robot Systems
- Software Engineering

### **Sønderborg**

- Software Engineering
- Mechatronics
- Electrical Engineering
- Mechanical Engineering



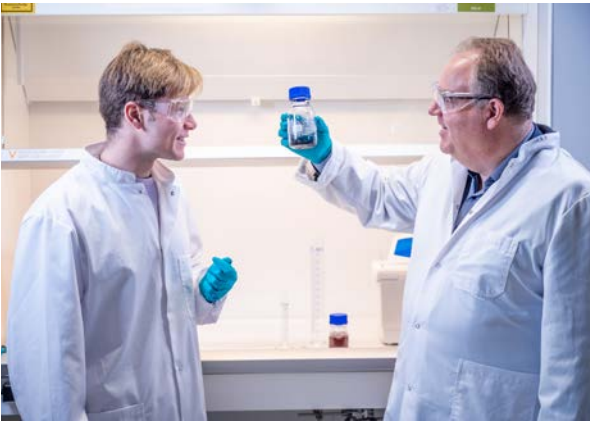
### **Why choose an industrial master?**

Because it gives you

- unique job experience while studying
- valuable contact to regional companies
- a smooth transition into a potential full-time job



# Studying in Denmark



At the University of Southern Denmark (SDU), the study environment is highly international but also inherently Danish. We are ambitious and good at what we do and, at the same time, the atmosphere is relaxed and welcoming.



Students and professors work closely together in an informal setting that encourages curiosity, collaboration and new ideas, with critical thinking valued over memorisation.

Teaching combines solid academic foundations with practical experience. From day one, students work in teams on real-world cases and projects in collaboration with industry partners.



The focus on innovation and problem-solving provides you with the skills that employers value most.

SDU's campuses are located in some of Denmark's most active business regions. We have close ties to local and global businesses, which means that many students find relevant part-time jobs or internships during their studies. Exciting career opportunities are also right outside the classroom door.

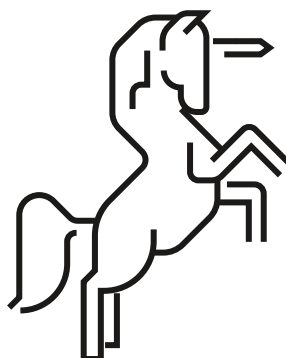


Student life offers much more than lectures and labs. There are many student organisations and social activities, and the Danish emphasis on well-being and work-life balance makes it easy to combine academic work with everyday life.



At SDU, we welcome hundreds of international students every year. If you decide to become one of them, we are convinced you will find the transition smooth.

Housing is accessible, career prospects are great, and you will quickly discover that most Danes speak excellent English.

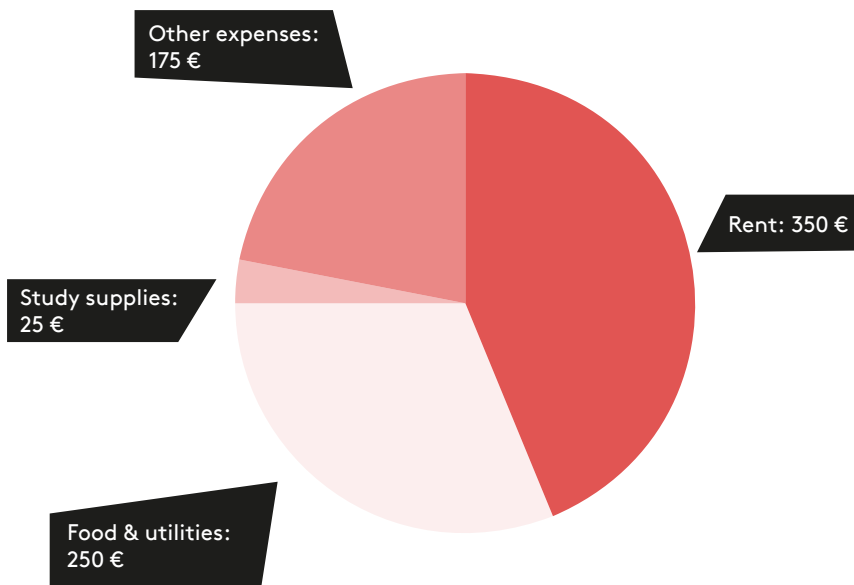


## Housing and living costs

Housing and living costs are affordable compared to other European cities, making it easier to manage your finances.

**Apply for housing as soon as you have submitted your application!**

There are good housing possibilities, but there are also many applicants!



All non-EU/EEA citizens without a permanent residence permit in Denmark are required to pay tuition. The fees are paid annually.

## Tuition fees for non-EU students

If you are a full degree student from the Nordic countries, EU/EEA countries or Switzerland, you do not have to pay tuition fees and can study at SDU for free.

As soon as the tuition fees are paid by the student and received by SDU, the VISA process will start.

The tuition fees can vary over time, so check them at [sdu.dk/feesandfunding](https://sdu.dk/feesandfunding)

At SDU, you can become a master of engineering at two of our campuses - in Sønderborg and in Odense. Find out what makes these two campuses unique for you as a student.

## SDU campus Sønderborg - the international campus



More than 80% of the students at SDU's campus Sønderborg are international - making it one of the most international university campuses in Europe.

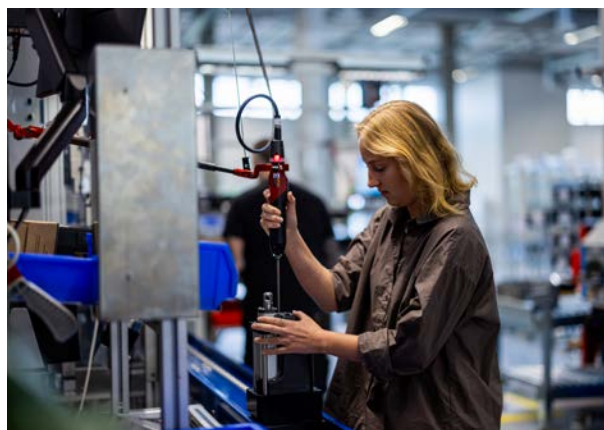
Researchers from all over the world gather in Sønderborg to conduct

# Become at the of



ground-breaking research and innovation in modern and high-tech facilities with a scenic view to the harbour.

Students work in small groups and are encouraged to engage in project-based learning. Collaboration is central - both among students, with researchers and companies. The region is home to several high-tech firms, and many students take part in industry-related projects during their studies.



# an engineer Faculty Engineering

SDU campus  
Odense -  
where robotics  
innovation takes flight



The SDU campus in Odense offers modern facilities and well-established research communities. Here you find high-level academic research - as well as a ground-breaking athletic stadium and a wide range of student associations where you can meet students from other programmes and faculties.

And if you have entrepreneurial ambitions, SDU offers support that will help bring your ideas to life.

In Odense, one of the world's leading hubs for robotics and drone research, approx. 21,000 students from more than 90 countries come together, creating a dynamic and inspiring study environment where you will meet interesting and ambitious fellow students.




# Chemical Engineering and Biotechnology

Do you want to help drive the green transition through advanced chemical and biotechnical solutions?

With an MSc in Chemical Engineering and Biotechnology, you will learn how to design and optimise processes within pharmaceuticals, food, clean energy and biorefineries. The programme is based in Odense – a hub for biotech and life sciences in Denmark – and you will collaborate with local companies on real-world projects giving you hands-on experience in process development, analytical methods and environmental assessment.



 Offered at our campus in ODENSE

## Here's an example of the programme structure

### Term

1	Risk management in chemical and bio-chemical engineering	Industrial separation and purification technologies	Advanced experimental design and data analysis	Industrial fermentation and modelling bioprocesses	
2	Protein and bioproducts technology	Techno-economic assessment of process technologies	Transport phenomena	Elective	Elective
3	Electives *				
4	Master's thesis				

\* Choose between a 30 ECTS, 40 ECTS or 60 ECTS master's thesis. With a 30 ECTS master's thesis, an In-company project is mandatory.



# Career options

## With a MSc in Chemical Engineering and Biotechnology

you can work in, e.g.,

- » the chemical industry
- » the food industry
- » the pharmaceutical industry
- » laboratories
- » environmental governance
- » power plants

you can work as, e.g.,

- » project manager
- » development engineer
- » developments department manager
- » researcher or analyst
- » head of laboratory or quality
- » teacher or consultant

## Meet Marie and Brian who work with biogas to make Denmark CO<sub>2</sub> neutral by 2050



Find out how Marie and her fellow students work on a faster production of biogas, and how Brian works on converting CO<sub>2</sub> to methane to increase the energy potential without a negative impact on the environment.

# Electrical Engineering

Drive the future of intelligent, energy-efficient technology through expertise in power electronics and embedded systems – core components in everything from EV's to satellites.

With access to state-of-the-art electronics laboratories, you'll refine your skills through industry-linked projects. The programme opens pathways to careers within green technology, transport and advanced electronics or further academic exploration through a PhD or industrial research.



📍 Offered at our campus in SØNDERBORG

## Here's an example of the programme structure

### Term

<b>1</b>	Programming for hardware constrained environments	Materials science in electrical engineering	Analysis and modelling of electrical machines	Statistical signal processing	Power electronics 1	Electronics design and build 1
<b>2</b>	Hardware/software co-design of embedded systems	Advanced materials, reliability and failure analysis	Control of power converters		Advanced power electronics	Electronics design and build 2
<b>3</b>	Electromagnetic compatibility	Internet of things	Electives *			
<b>4</b>	Master's thesis (30 ECTS)					

\* Choose between a 30 ECTS, 40 ECTS or 60 ECTS master's thesis.  
With a 30 ECTS master's thesis, an In-company project is mandatory.



# Career options

## With a MSc in Electrical Engineering

you can work in development companies within, e.g.,

- > sustainable energy
- > energy conversion
- > transport systems
- > automation
- > robot technology

you can work as, e.g.,

- » development projects manager
- » development engineer
- » technical manager
- » consultant
- » sales representative
- » researcher at a university
- » entrepreneur

## Meet Mikkel and hear about his job at Cabinplant



Studying a MSc in Engineering - Electronics from SDU is also great because of the link between practical work and learning new theory.

Find out how Mikkel is using his MSc in Electrical Engineering from SDU to develop factory equipment and advanced machinery for the food industry at Cabinplant on Funen.

# Electrical Engineering

Drive the next wave of intelligent technology as a specialist in microelectronics, embedded systems and telecommunications.

This MSc in Electrical Engineering gives you deep expertise in designing high-frequency circuits and advanced digital and analogue systems – the backbone of everything from autonomous robots and satellites to smart sensors, communication networks and edge computing. You work in a project-based environment with real company challenges, gaining both theoretical insight and hands-on skills in areas like chip design, accelerated AI and wireless communication.



📍 Offered at our campus in ODNENSE as of September 2026

## Here's an example of the programme structure

### Term

1	Advanced statistics	Sensor technology	Advanced communication systems	Tools of artificial intelligence	Embedded systems	
2	Scientific methods	Microelectronics and chip design		Projects in embedded control	Embedded software design	Elective
3	Optimisation techniques	Advanced electronics and IoT systems		Electives *		
4	Master's thesis (30 ECTS)					

\* Chose between In-company project (15 ECTS) + OR master's thesis (40 ECTS) + 5 ECTS elective OR 15 ECTS electives

# Career options

## With a MSc in Electrical Engineering

you can work with, e.g.,

- » computers and data networks
- » control and monitoring systems
- » energy saving products
- » mobile communications
- » electrical devices and machines
- » robots and drones
- » automotive manufacturing
- » automation of production processes
- » industrial electronics

you can work as, e.g.,

- » development projects manager
- » development engineer
- » project manager
- » consultant
- » sales manager



## Meet Martin and Mikkel working on an E-gokart



Watch Martin and Mikkel explain their work on the electric gokart which they have been building as a student project within the Electrical Engineering master's programme.


# Engineering, Innovation and Business

Combine engineering insight with strategic thinking to drive innovation from concept to market.

With a Master in Engineering, Innovation and Business, you will learn to identify technological opportunities, assess business potential and lead digital transformation.

Working on real-life industry challenges, you'll gain expertise in product development, automation, entrepreneurship and finance, preparing you for roles in business development, tech entrepreneurship or innovation leadership.



 Offered at our campus in SØNDERBORG

## Here's an example of the programme structure

### Term

1	Student research project	Finance for entrepreneurial engineers	Introduction to selected disruptive technologies	Data science	Fundamentals of sustainability in engineering
2	High-tech business venturing		Advanced supply chain simulation	Persuasive communication and negotiation	Elective
3	Innovation in practice		Select one of four specialisation tracks *		
4	Master's thesis (30 ECTS)				

\* (1) In-company project + 5 ECTS elective, (2) Entrepreneurship training + 5 ECTS elective, (3) Upstart master's thesis + 10 ECTS electives, (4) 20 ECTS electives



# Career options

## With a MSc in Engineering, Innovation and Business

you can work self-employed in your own company or as a manager in a public or private company.

You can work as, e.g.,

- » development engineer
- » product developer
- » project manager
- » manager of technological departments
- » innovation manager
- » marketing manager
- » strategic procurement manager
- » entrepreneur
- » consultant
- » teacher
- » researcher

## Meet Head of Sales Anders at Siemens Gamesa Renewable Energy



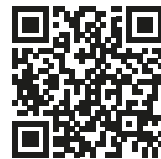
Anders works as Head of Sales Solution within offshore and windturbines, and he has three good pieces of advice for you as an innovation and business engineer.

# Engineering Physics

Explore the fundamental principles that govern advanced technologies, from the interaction of light with nanomaterials to the development of ultra-sensitive optical sensors.

This master's programme deepens your knowledge in optics, quantum and molecular physics and nanostructure fabrication.

Through hands-on research and interdisciplinary collaboration, you will help drive innovation in fields such as diagnostics, environmental sensing and high-speed computing, preparing for careers in high-tech industry or academic research.



Offered at our campus in ODENSE

## Here's an example of the programme structure

### Term

<b>1</b>	Statistical signal processing	Sensor technology	Atomic physics	Laser physics and technology	Solid state physics	Journal club and industrial case studies
<b>2</b>	Microtechnology & device fabrication	Optical system design & spectroscopy	Advanced physical optics		Computational physics	Elective
<b>3</b>	Adv. characterization of materials	Nano-optics	Quantum engineering	Electives		
<b>4</b>	Master's thesis (30 ECTS)					



# Career options

## With a MSc in Engineering Physics (Odense)

you can work within, e.g.,

- » optical communication
- » sensor technology or medical technology
- » aerospace engineering
- » materials engineering
- » energy technology
- » optical design and engineering
- » nanotechnology incl fabrication and characterization techniques
- » computer modelling of physical and technical systems

you can work as, e.g.,

- » researcher
- » technological business development engineer, consultant or project manager

## Meet Mads, who leads a bio-imaging laboratory at King's College in London



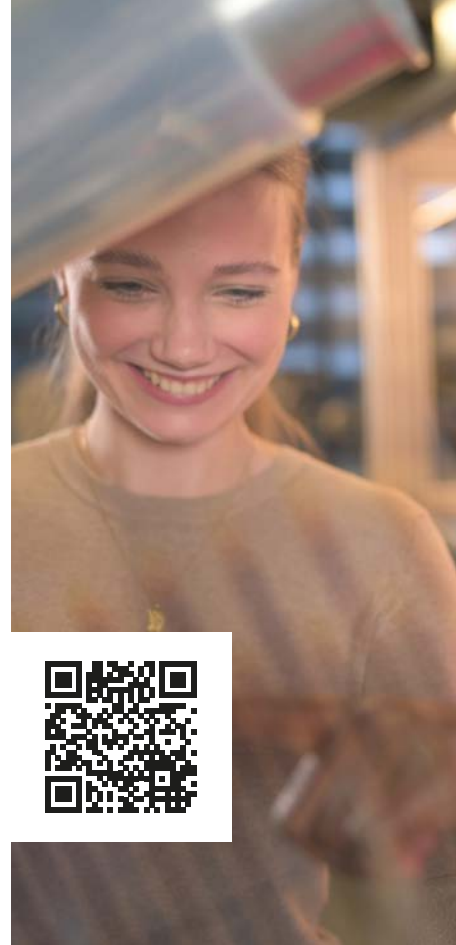
”My MSc in Engineering, Physics and Technology from SDU gave me the foundation to pursue a PhD at the National University of Singapore. Following this, I was awarded a Marie Curie Fellowship at Imperial College London. Today, I am an Associate Professor at King’s College London, where I lead the Label-free Bio-imaging Laboratory. My research focuses on how light interacts with biological tissue, developing advanced imaging and endoscopy techniques and applying AI in healthcare for early cancer diagnosis.”


# Engineering Physics

An Engineering Physics engineer combines the best of two worlds: the drive of a physicist to understand the basic principles and the drive of an engineer to find new technological solutions to the challenges of our society.

This MSc gives you the skills to design and optimise functional materials for tomorrow's technologies, working with optics, nanostructure fabrication and quantum and molecular physics.

With strong links to research and industry, the programme offers an international study environment in Sønderborg and hands-on project work.



 Offered at our campus in SØNDERBORG

## Here's an example of the programme structure

### Term

<b>1</b>	Materials science	Advanced sensor technology	Statistical signal processing	Modelling of materials	Materials science project 1	
<b>2</b>	Microtechnology & device fabrication	Experimental optical spectroscopy	Reliability in materials engineering	High throughput manufacturing processes: from 2D to 3D	Applied polymer materials	Materials science project 2
<b>3</b>	Adv. characterization of materials	Energy devices	Electives			
<b>4</b>	Master's thesis (30 ECTS)					



# Career options

## With a MSc in Engineering Physics (Sønderborg)

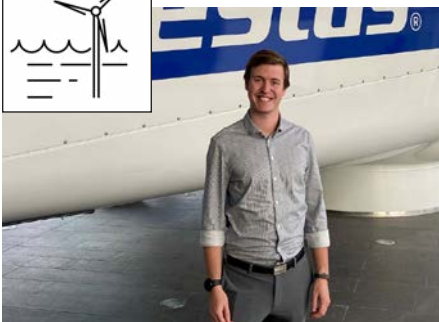
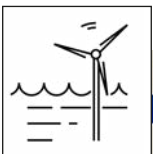
you can work within, e.g.,

- » sensor technology or medical technology
- » aerospace engineering
- » materials engineering
- » energy technology
- » optical design and engineering  
incl. laser systems
- » nanotechnology incl fabrication and  
characterization techniques
- » computer modelling of physical and  
technical systems

you can work as, e.g.,

- » researcher
- » technological business development  
engineer, consultant or project manager

## Meet Mark Hempel, Technical Management Lead Engineer at Vestas R&D



After graduating from SDU, Mark joined the 2-year Vestas Global Graduate Programme, spending his first year with the R&D team in Aarhus and the second with the Product Market Strategy team in Hamburg. In 2024, he returned to Aarhus as a Lead Engineer. Today, Mark develops and implements noise and tonality models in MATLAB, advises global sales teams on onshore turbine products and helps define design requirements for future turbines. His role bridges sales, design and process optimisation, demanding both technical expertise and strong communication skills.

# Environmental Engineering

Tackle pressing climate and resource challenges as an environmental engineer. During your studies, you gain expertise within sustainability, environmental technology and eco-efficient systems, and you will work on real-world, company-linked projects in a collaborative, research-driven setting.

Graduates become environmental specialists ready to design sustainable technologies and strategies with interesting careers in waste management, environmental consultancy, corporate sustainability or research.



Offered at our campus in ODENSE

## Here's an example of the programme structure

Term							
1	System analysis - Life-cycle assessment		Eco-efficient engineering		Techno-economic assessment of process technologies		Sustainable development
2	Waste management - from waste to resources		Material flow analysis		Elective		Elective
3	Energy system analysis - tools and cases	Geographic information systems for engineering sustainability	Elective	Elective - In-company project	Elective - Thesis/ In-company project		
4	Master's thesis (30 ECTS)						



# Career options

## With a MSc in Environmental Engineering

### you can work within, e.g.,

- » resource recovery and waste management
- » assessment of strategic and market ventures
- » planning of urban traffic infrastructure
- » development of environmentally efficient technologies
- » implementation and management of environmental installations

### you can work as, e.g.,

- » project manager in consulting engineering companies
- » consultant in local and regional governments
- » caseworker in public administration
- » engineer at environmental or development departments

## Meet Line who is making a difference for the environment



”I would like us to become better at taking care of our environment. It is not possible to focus on all aspects, so it makes perfect sense to me that my job targets areas such as waste and companies.”

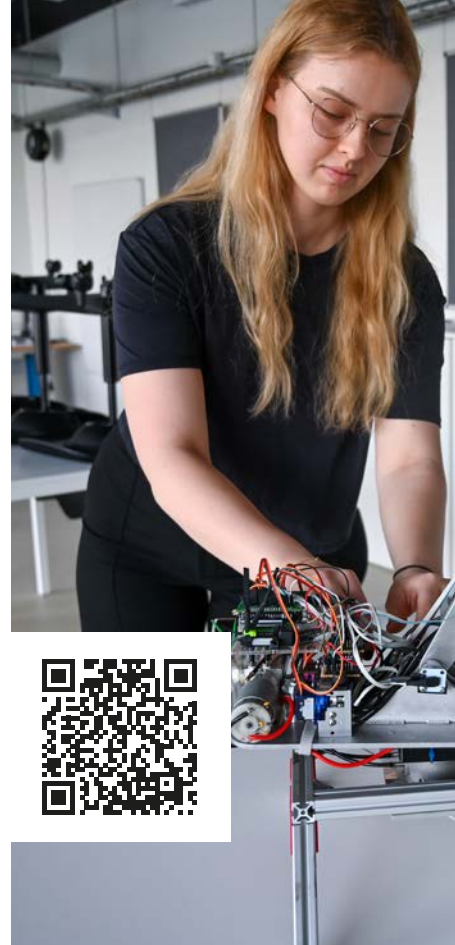
Line Gammelby Juhl works as an environmental officer at the municipality of Haderslev where she, among other things, is responsible for municipal waste management. At the same time, she ensures that companies comply with environmental regulations.

# Mechanical Engineering

From advanced robotics to renewable energy systems, mechanical engineers play a crucial role in modern innovation. In Sønderborg's international academic environment, you will explore fluid dynamics, material behaviour and mechanical design through theory and hands-on, industry-linked projects.

Whether your ambition lies in high-tech development, sustainable production or applied research, this MSc equips you with the analytical skills and specialist knowledge to drive technological progress across global industries.

On the Msc in Mechanical Engineering programme, you can specialise in either *Fluid Mechanics and Energy* or *Solid Mechanics and Materials*.



Offered at our campus in SØNDERBORG

## Here's an example of the programme structure for Solid Mechanics and Materials

### Term

1	Analytical mechanics	Optimisation and image processing	Mechanical design and build	Continuum mechanics	Data science
2	Advanced machine learning	Machine dynamics	Modelling and simulation of dynamic systems	Wind turbine technology	Computational multi-physics
3	In-company project / master's thesis + elective / elective *			Plasticity	Fracture mechanics
4	Master's thesis (30 ECTS)				

\* Chose between (1) In-company project OR (2) master's thesis + 5 ECTS elective OR (3) 15 ECTS electives



# Career options

## With a MSc in Mechanical Engineering

you can work in consulting companies or development departments, where you work within, e.g.,

- » testing and analysis
- » product development
- » planning
- » project management

you can work as, e.g.,

- » project manager for interdisciplinary projects
- » mechanical construction lead
- » development and product construction lead

## Meet Victor and Hanna who turn theoretical concepts into physical solutions




Find out how Victor and Hanna work together with students from other fields. And hear them explain how easy it was to settle at the campus in Sønderborg and to find friends among people who have the same interests.

# Mechatronics

Bridge mechanics, electronics and software to develop intelligent, energy-efficient technologies. The master's programme in Mechatronics equips you to create advanced control systems and innovative solutions – from smart devices to automation systems.

Working on real-world projects, often in collaboration with industry, you will engage in hands-on, research-based learning. This also gives you excellent career options in, for instance, product development, automation and system integration, in Denmark and abroad.



 Offered at our campus in SØNDERBORG

## Here's an example of the programme structure

### Term

<b>1</b>	Optimisation and image processing	Analytical mechanics	Statistical signal processing	Eco-efficient engineering	Control of autonomous systems	Programming for hardware constrained environments
<b>2</b>	Fault tolerant control	Computational multi-physics		Advanced machine learning	Experimental control systems	Mechanical design and build 1
<b>3</b>	Adaptive non-linear control	Applied machine learning	Mechatronics design and build 2	In-company project/master's thesis + course/course + electives *		
<b>4</b>	Master's thesis (30 ECTS)					

\* Chose between (1) In-company project OR (2) 40 ECTS master's thesis + Advanced sensor technology OR (3) Advanced sensor technology + 10 ECTS electives



# Career options

## With a MSc in Mechatronics

you can work within, e.g.,

- » resource recovery and waste management
- » assessment of strategic and market ventures
- » planning of urban traffic infrastructure
- » development of environmentally efficient technologies
- » implementation and management of environmental installations

you can work as, e.g.,

- » development engineer, e.g. with managerial responsibility
- » project manager
- » specialist in specific technologies
- » consultant or custom advisor
- » teacher or researcher at universities
- » entrepreneur with your own company

## Meet José - system applications engineer at Danfoss Power Solutions



”I chose my study programme because I like the idea of having a general knowledge of a lot of different things instead of specialising in one specific field. The good part of Mechatronics is that it is very dynamic.”


José Sánchez gives insights into his daily tasks and responsibilities and points out that he very much can apply his experience with handling projects from the study programme at his current job at Danfoss.

# Operations Management

Learn to manage the complexity in global production and supply chains. As a student in Operations Management, you will develop the skills to analyse, design and lead development initiatives that integrate technology, logistics and business insight.

The programme combines engineering depth with strategic thinking, preparing you to create sustainable, competitive solutions for manufacturing and service sectors alike.



 Offered at our campus in ODENSE

## Here's an example of the programme structure

### Term

<b>1</b>	Industrial IoT in operations	Digitalisation in operations management	Programming for engineers	Sustainability	Operations management: Systems and methods
<b>2</b>	Operations analysis	Data science and machine learning	Emergent systems for manufacturing	Simulation in operations and supply chain	Project
<b>3</b>	Advanced quality management	Technology management	Advances in global supply chain management	Electives	
<b>4</b>	Master's thesis (30 ECTS)				



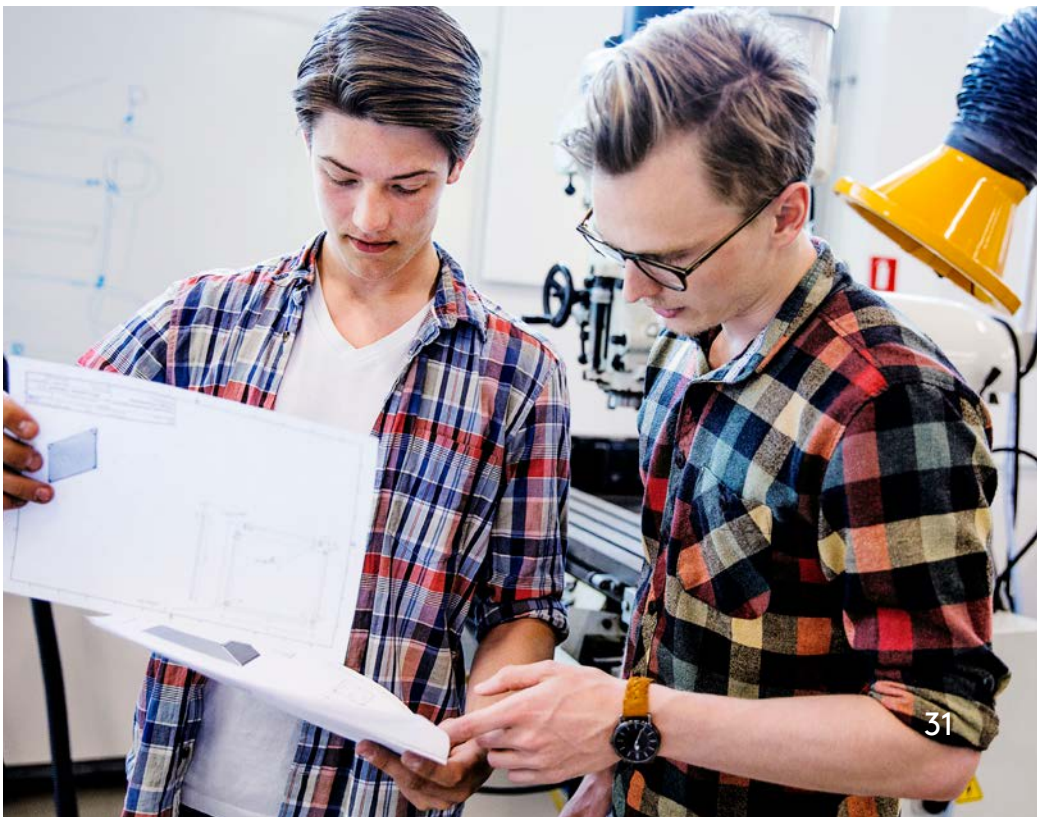
# Career options

## With a MSc in Operations Management

you can work with, e.g.,

- » automation of production
- » building up completely or partially automated production systems
- » international logistic leadership across borders
- » creation and leadership of global production networks
- » product planning & development
- » development of global supply chains

Or you can start your own business.



# Product Development and Innovation

Have you ever held a product in your hands and thought to yourself: "This could be done better"? As a graduate of Product Development and Innovation, you gain the tools to do something about it.

The interdisciplinary programme integrates design, engineering and management, and will give you the skills to lead sustainable product development, apply emerging technologies and shape user experiences across industries.

With a focus on reflective practice and project-based learning, you are prepared for roles in design leadership, innovation management and entrepreneurial ventures.



Offered at our campus in ODENSE

## Here's an example of the programme structure

### Term

1	New business establishment	Consumer product testing & optimisation	Experience-based design	System analysis - Life cycle assessment	Elective or statistics
2	Global entrepreneurship	Theories and methods of technological change	Modularisation and platform design	Sustainable materials in product creation	Advanced product modelling
3	Management of technology	Elective		In-company project (15 ECTS) OR PDI project 2 + 5 ECTS elective OR PDI project 3 + 10 ECTS electives	
4	Master's thesis (30 ECTS)				



# Career options

## With a MSc in Product Development and Innovation

you can work with or within, e.g.,

- » management of cross-functional projects in global distributed networks
- » development of business opportunities as entrepreneur or intrapreneur
- » academia (PhD and researcher)
- » integrated product development and design
- » technology-intensive innovation processes

you can work as, e.g.,

- » design-lead engineer
- » product manager
- » project manager

## Meet Thea who works as project manager in business development at Energi ELCON



Now, I work as a project manager in business development and ESG at Energi ELCON.

Hear about how she is implementing abstract concepts like sustainability and ESG in the company, and how the PDI education has given her the necessary skills to master her job.


# Robot Systems

Become a robotics engineer at the heart of one of Europe’s leading robot hubs: Odense.

This MSc offers two specialisations – *Advanced Robotics Technology* and *Drones and Autonomous Systems* – preparing you to design intelligent machines within, for instance, healthcare, industry or environmental monitoring. You will work on real-world robots through industry-linked projects and explore cutting-edge fields such as AI, computer vision, soft robotics and autonomous drone navigation.

Graduates are equipped to drive technological change in global high-tech sectors or launch their own ventures in robotics innovation.



 Offered at our campus in ODENSE

## Here’s an example of the programme structure for **Advanced Robotics Technology**

### Term

<b>1</b>	Multivariate statistics	Introduction to embedded AI	Scientific method	Introduction to drone technology	Control of autonomous systems	Embedded systems
<b>2</b>	Elective	Tools of artificial intelligence	Mechanical aerial systems	Bio-inspired autonomous systems	Large-scale drone perception	Guidance navigation and control
<b>3</b>	Elective	Elective	Elective	Experts in team innovation (MSc)		
<b>4</b>	Master’s thesis (30 ECTS)					



# Career options

## With a MSc in Robot Systems

you can work within, e.g.,

- » robot systems
- » embedded systems
- » programming and software engineering
- » artificial intelligence
- » industrial automation

you can work with data processing and development of, e.g.

- » robots
- » mobile phones
- » web applications
- » machine construction
- » security systems
- » large software applications

## Meet Clionadh who is CEO and founder of Coalescent Mobile Robotics



Hear about how she enjoys creating her own products and how satisfying it is to work with a diverse and passionate team on providing mobile robotics for the automated transport of goods within retail trade.


# Software Engineering

Software is everywhere in today's society, making software engineers absolutely vital and highly demanded across industries.

With this MSc, you study in a highly international academic environment and learn how to develop advanced, user-centred digital solutions across diverse platforms – from mobile apps to AI systems.

Combining deep technical expertise with a societal perspective, you will learn to engineer high-quality software, manage complex projects and drive innovation.



 Offered at our campus in SØNDERBORG

## Here's an example of the programme structure

### Term

1	Scientific methods	Programming for hardware constrained environments	Specialisation course in software engineering
2	Research in software engineering		Specialisation course in software engineering
3	Innovative software technologies		Electives
4	Master's thesis (30 ECTS)		



# Career options

## With a MSc in Software Engineering

you can work as, e.g.,

- » software developer
- » mobile applications developer
- » systems developer or consultant
- » IT and systems architect
- » software quality engineer
- » product manager
- » project manager
- » head of IT strategy
- » teacher
- » researcher

## We need engineers to create future-proof software solutions

// I don't question the need for a Master of Science in Software Engineering. The use of software to create solutions that can help us in our daily lives has never been greater since software surrounds us wherever we go; from our washing machines, pumps and lighting, the devices in the healthcare industry to global search engines etc.

Therefore, we have a great need for master of science engineers in software engineering because they can participate in all aspects of the development process.

*Lars Dahl-Hansen, System Architect, Autorola Software Development*


# Software Engineering

Design the intelligent software solutions of tomorrow.

This Master's programme trains you to develop advanced, user-centred software across platforms – integrating programming, AI, interaction technologies and industry insight. You will gain expertise in software design, testing, quality management and project leadership.

With broad career prospects, including roles in development, consultancy and entrepreneurship, graduates are highly demanded and equipped to shape the digital innovation in business and society.



 Offered at our campus in ODENSE

## Here's an example of the programme structure

### Term

1	Scientific methods	Advanced software engineering methodologies	Specialisation courses in software engineering
2	Engineering research in software		Specialisation courses in software engineering
3	Engineering of innovative software		Electives
4	Master's thesis (30 ECTS)		



# Career options

## With a MSc in Software Engineering

you can work as, e.g.,

- » software developer
- » mobile applications developer
- » systems developer or consultant
- » IT and systems architect
- » software quality engineer
- » product manager
- » project manager
- » head of IT strategy
- » teacher
- » researcher

## Large projects require big ideas

// Our clients and projects in software development for large e-commerce solutions and mobile applications are continuously growing and becoming more complex. Therefore, we need software engineers who can both develop software in detail and recognise the complexity of the projects in a broader perspective. At Hesehus they become part of a project team developing some of the most ambitious and strategic e-commerce solutions in Denmark. Here, they obtain a role in all phases right from requirement gatherings to deployment and planning of architecture.

*Mette Reinholt Mortensen, COO, Hesehus*


# Supply Chain Digitalisation

Lead the digital transformation of global supply chains with cutting-edge tools in AI, machine learning and data science.

This pioneering programme equips you to develop sustainable, secure and economically efficient solutions through hands-on projects in close collaboration with industry.

Gain a unique blend of technical and business insights in an international study environment, preparing you for interesting jobs in digital innovation across sectors worldwide.



 Offered at our campus in SØNDERBORG

## Here's an example of the programme structure

### Term

1	Data science	Automatisation and digitalisation	Supply chain management fundamentals	Finance for entrepreneurial engineers	Operations research	
2	Machine learning	Production modelling and simulation	Data governance & interoperability	Sustainability in global supply chains	Digital value chain strategy	Elective
3	Forecasting and inventory management	Advanced supply chain simulation	In-Company project/electives/entrepreneurial training			
4	Master's thesis (30 ECTS)					



# Career options

## With a MSc in Physics and Technology (Sønderborg)

**you can work within, e.g.,**

- » manufacturing and production
- » logistics and transportation
- » retail
- » technology and IT
- » energy and environment
- » healthcare
- » food industry

**you can work as, e.g.,**

- » supply chain manager
- » operations manager
- » logistics manager
- » data or business analyst
- » machine learning engineer
- » AI specialist or digital transformation consultant



# Rocketry: From childhood dream to engineering project

Originally from Poland, Olgierd Nowakowski has lived in Denmark for 14 years and earned a BEng in Mechatronics from SDU Sønderborg in 2023. Today, he is employed at SDU as an engineer while also studying for a Master's degree in Engineering, Innovation and Business, currently in his second year.

Besides his studies, Olgierd is Vice President in the ARC - the Als Rocketry Club that today has 40 members.

Founded in 2020, ARC's ambitions have taken off – quite literally. What began with sugar-based hobby rockets for a few has grown into a full-blown technological testbed.

*"Since a young age I have been fascinated by how things work and how they are made, so Mechatronics was a natural choice for me. Studying in Sønderborg has sharpened my technical skills and given me a strong foundation in the engineering method. It has also connected me with like-minded students, which ultimately led me to join the Als Rocketry Club on campus."*



*"Rocketry has always been a personal passion - I started with model rockets on my own, and the club gave me the opportunity to take this further. With the support of SDU and our sponsors, I worked as technical lead for the S3 Firestarter project, which we successfully launched in Denmark on 7 July. This experience tested my engineering skills hands-on and also taught me about teamwork and project management."*



The project combines space technology, leadership and teamwork. The students collaborate across mechanical, electronics and software engineering, as well as project management and outreach.

Beyond nurturing their passion for aerospace, the project also shows potential employers exactly what these students are capable of.

Sponsored by companies like Danfoss, Linak and Swagelok, among others, the club has tested rocket engines, experimented with liquid fuels and now dreams of reaching an altitude of 9,000 metres – and competing at the international EuRoC competition in Portugal.

You can read more about the ARC at [www.the-arc.dk](http://www.the-arc.dk).

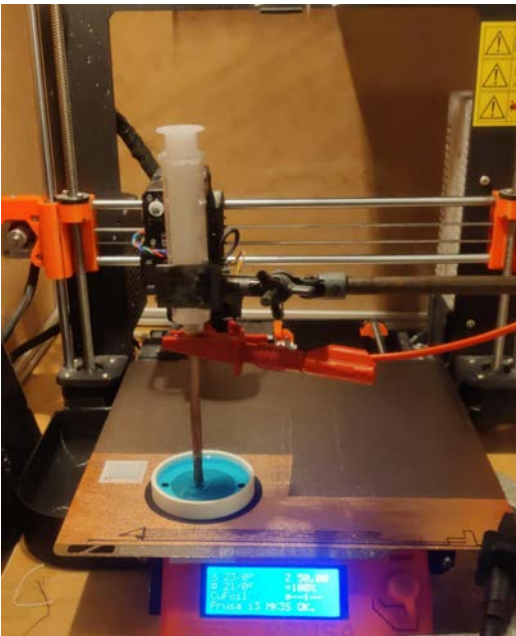
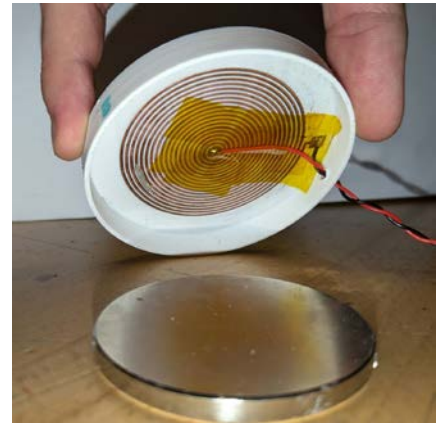
*"Looking ahead, I see the club in a strong position to promote rocketry further. I am eager to continue future launches, potentially in collaboration with other European clubs and the wider scientific community within the field."*

# Exploring new ways of making things: Meet Artis



Artis Fils from Latvia has always been fascinated by invention. Today, he's in the final semester of his MSc in Mechatronics Engineering at SDU Sønderborg, building on a Bachelor's degree in the same field. Alongside his studies, Artis works as a student assistant in teaching and 3D printing research - exploring new ways of making things.

*"As a kid, I used to watch Dexter's Laboratory, and then I set out to become an inventor. That led me to engineering and then to mechatronics, as I could learn skills from different fields."*



His passion for 3D printing started early in his studies when he joined the university's 3D printing workshop. Later, while searching for a thesis topic, a blog post about copper coating in 3D printing sparked his curiosity. That inspiration led to a bachelor's thesis and even a conference paper on a 3D-printed, copper-coated speaker made on a single machine.

*"During my bachelor thesis, I got into reading scientific papers about covering printing with liquid plastic. I set out to replicate it and find a practical use for it. After a year of trial and error, it's now the core of my master's thesis."*

Artis explains that engineering research requires patience. Progress can be invisible for weeks, but breakthroughs make the effort worthwhile. Over time, he's learned to iterate faster, test smaller and write as he works.

*"Start small. Take the next smallest step you can take. Big goals are overwhelming, small and clear goals aren't. As you get these small victories, you'll have real progress to show to get others interested and involved."*

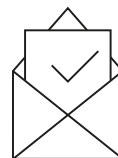
His work blends materials, mechanics, electronics and programming - everything mechatronics makes possible. With strong feedback from his supervisors and a growing passion for research, Artis is now setting his sights on a PhD in Engineering Science and a future in research and teaching.



# How to apply for a Master's programme

## Entry requirements

To be admitted to a Master's programme, you must have a relevant Bachelor's degree, professional Bachelor's degree or another degree on an equal level. For most programmes, you must fulfill a certain amount of ECTS credits in several specific core areas.



## Language requirements

When applying, you have to prove your proficiency in either English or Danish, depending on the language of instruction used in the relevant programme. Applicants must prove at least English language qualifications on the intermediate level.

You can submit a TOEFL or an IELTS test or, for most European countries, the lectures from High School can cover this requirement. Deadline for providing proof of English skills is 15 May. Are you applying for a Danish taught programme, you must document high Danish language knowledge.

## Application deadline and admission process

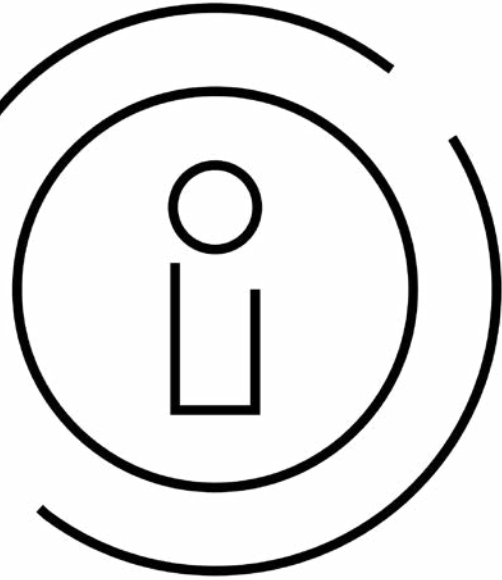
The application deadline for **EU-citizens** is **1 March**.  
For **non-EU citizens**, the deadline is **1 February**.

The application portal DANS can be accessed via the admission QR-code below. Right after the deadline, all applications are checked for missing documentation. If a document is missing, we will contact the applicant via the application portal.



## Second round of student intake for EU applicants

In case you missed the deadline for applying, you can apply for vacant spots from 10 June onwards and as long as there are vacant places (first come, first served). The programmes with free places are made public on [www.sdu.dk](http://www.sdu.dk).



## **Your entry to application and admission**

Find all relevant information you need prior to applying for admission.

Read more about important dates and deadlines, tuition fees, scholarships and application fees here on our webpage:



## How to get a student job

Are you a future student looking for a student job? Then you can find all the necessary information you need in one place.

Visit our webpage using the code below and get an overview of the best resources for finding jobs, getting career guidance and meeting local employers.

### **Find a student job**

Find links to user platforms for students to find jobs that meet your skills - in Sønderborg and across Denmark.

### **Get career guidance**

Get help with your CV, job applications or career direction - online or in a free 1:1 session at SDU.

### **Meet local employers**

Connect with companies at Student Collaboration Day or Aabenraa Career Fair offering jobs and internships.



# First-job

## guarantee

As an engineering student at SDU Sønderborg, you are guaranteed your first job when you finish your BEng or MSc studies.

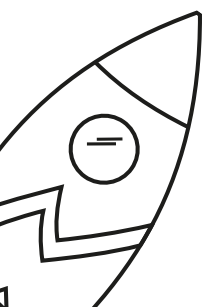
To meet the increasing need for engineers in the region, local companies from the southern part of Denmark and the University of Southern Denmark have joined forces to create a unique first-job guarantee that offers new graduates 6 months of employment, if they haven't already landed their first job.

To be eligible for the job guarantee, you need to fulfil the following requirements:

1. Complete your In-Company project or thesis (MSc) with a Danish company.
2. Graduate without delay.
3. Achieve Danish language proficiency at the B1 level. Free language courses are available on campus.
4. Participate in career-related activities during your studies.

### A high starting salary and a bright outlook

Denmark is renowned for its strong engineering traditions and innovative companies within, e.g., energy-efficient technologies driving the green transition. Graduating with an engineering degree from SDU ensures a top-quality education while entering a highly sought-after field of skilled engineers. The first-job guarantee opens doors to an appealing entry salary and exiting job prospects in Denmark.



# Engineering for circularity: How smart tags transform ventilation products

Meet Daniel-Andrei Chiriluta, a Romanian student currently pursuing his MSc in Product Development and Innovation at SDU's Odense campus. Passionate about sustainability and real-world problem-solving, Daniel-Andrei is part of an exciting project that could reshape how we think about product lifecycles.



On the recommendation of a fellow student, Daniel-Andrei joined a research initiative focused on product afterlife and the integration of smart labels into textile-based ventilation ducts. The project, supervised by Professor Lykke Margot Ricard and Andreas Wilhøft, is carried out in close collaboration with KE Fibertec — a company known for producing lightweight textile ventilation ducts as an alternative to traditional steel or aluminum systems.

*The weaving process at KE Fibertec's production facility where the technical textile for the ventilation ducts is manufactured.*



So, what makes this project special? The team is embedding smart labels — tiny chip-like tags — into the ducts during production. Similar to a washing label in your sweater, these tags carry a unique digital ID that can be scanned to trace the entire lifecycle of the product: from manufacturing and installation to cleaning, maintenance and eventual recycling. This digital traceability lays the foundation for circular business models and ensures compliance with the EU’s upcoming Digital Product Passport (DPP) requirements.

Detaching the railings from the duct



Left-over fibres

His work is strongly linked to his studies, especially in areas like sustainability, systems engineering, life-cycle assessment and EU legislation.

*“My research focuses on smart label technologies such as RFID, NFC or QR codes — anything that fits KE Fibertec’s product constraints. What I enjoy most is applying academic knowledge to real-life challenges, collaborating with industry partners and contributing to sustainability-driven solutions.”*

His work ties closely to his studies in sustainability, systems engineering, life-cycle assessment and EU legislation. For Daniel-Andrei, the MSc programme's strong emphasis on project-based learning and industry collaboration has been transformative:

"Working with peers and companies simulates real-world scenarios where you need to adapt to different stakeholders and environments. It's challenging—but incredibly rewarding."



*Ventilation test that shows how the ducts work.*

Looking ahead, Daniel-Andrei aims to build a career in sustainable engineering and product innovation, ideally in a role that bridges research and practical application. His advice for future students?

"Get involved in research projects early. It's the best way to deepen your understanding, gain hands-on experience and build a strong professional network."




**Photos by** Bolette Gadkjær Kristensen, Dan Gabey, Elena Buxhovi, Instafilm, Jonas Schultz Berg, Konrad Pawel Sarna, Lars Skaaning, Mette Krull , Michael Steensen, Nils Lund Petersen, Peter Bjerke, RØST and Syddansk Universitet.

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