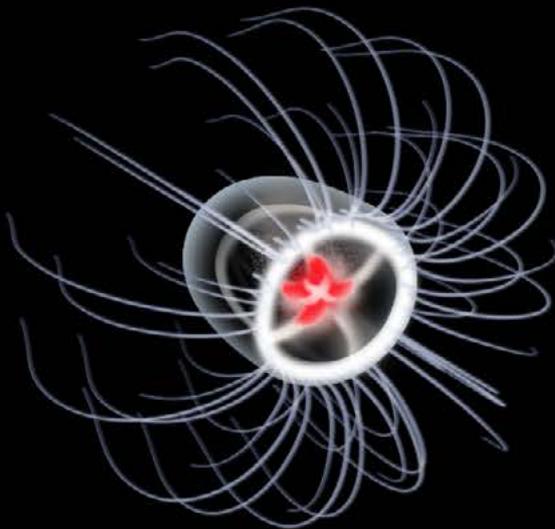
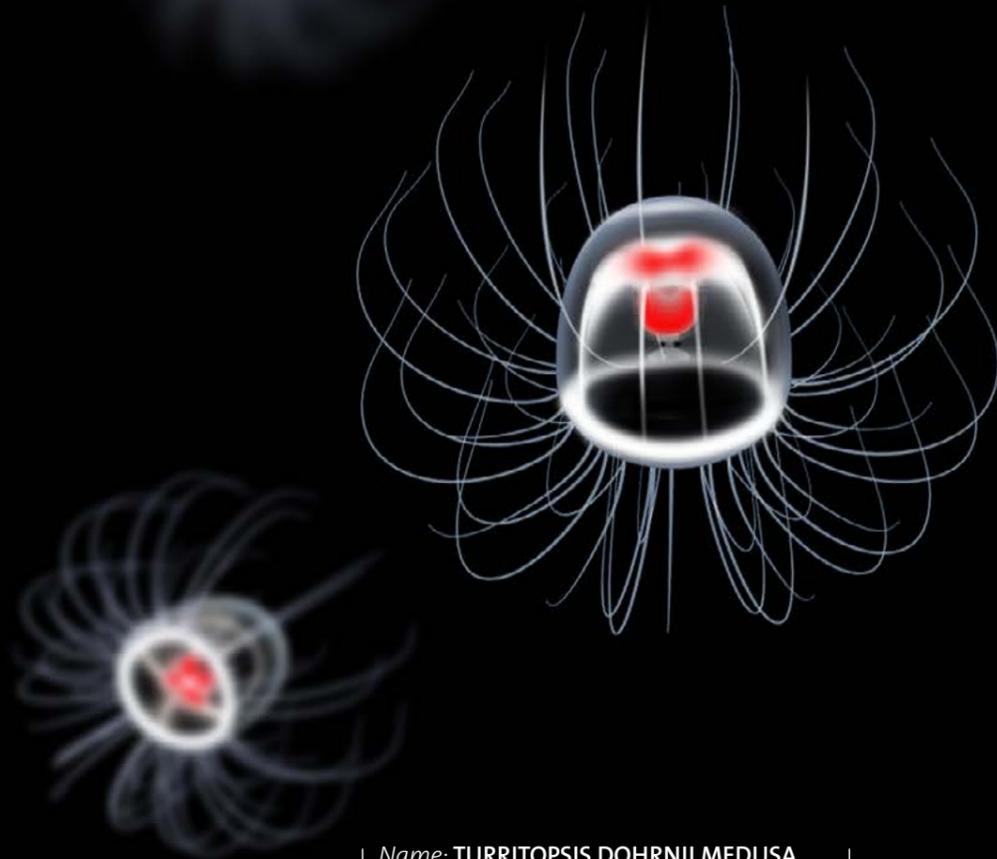


# Education

2027/2028



This catalogue is intended to inspire and encourage discussion on what the future may hold for a digitised KTH.



*Name:* TURRITOPSIS DOHRNII MEDUSA  
*Class:* Hydrozoa  
*Family:* Oceaniidae  
*Habitat:* First discovered in the Mediterranean Sea, but is now spreading quickly throughout the world's oceans  
*Size:* 4.5 mm  
*Characteristic:* Immortality

## 'Our own immortality might be right around the corner...'

- Professor Indira Inwiniero  
KTH Deep Ocean Research Laboratory

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The cover of this year's course catalogue features an organism that might give us something we never thought was possible: a cure for cancer, all thanks to the cnidarian *Turritopsis dohrnii* medusa's theoretical capacity for eternal life.

KTH Deep Ocean Research Laboratory is a partnership between several leading international universities. Using data analysis, the laboratory has identified the genes that lay the foundation for this jellyfish's capacity for cellular transformation, so-called transdifferentiation. This discovery will have enormous significance for human development. In addition to the potential to treat and cure diseases like cancer, it opens the door to a brand-new field of anti-ageing products.

Announced in December 2025, the discovery was followed by an unprecedented rise in the share price of the publicly traded KTH Spinoff Ventures. Future revenue is expected to give all KTH members a significant increase in dividends.

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Data-driven service and  
product development  
in biotechnology
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Social engineering
- 26-27 Winner of the KTH  
Spinoff Ventures  
Award: Second Skin



  
**KTH**  
VETENSKAP  
OCH KONST

Design your  
own programme  
based on need  
and ability

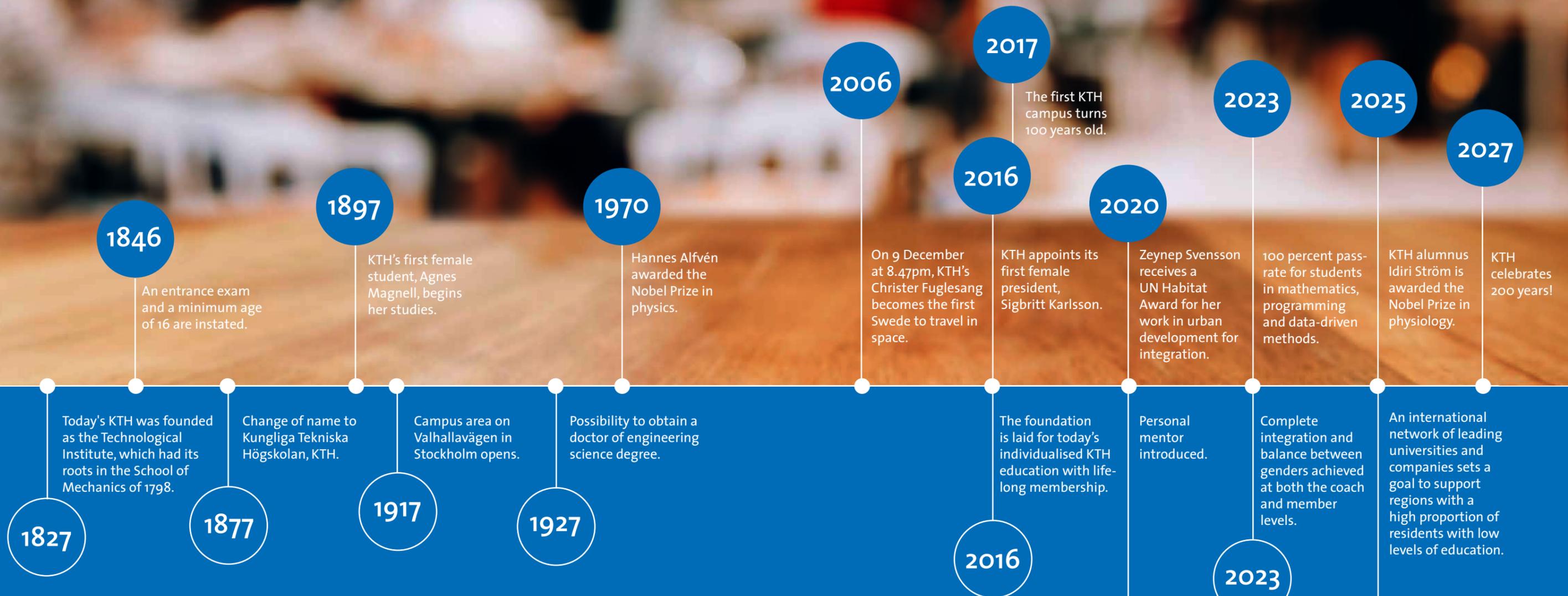
Be part of the  
international  
arena

A place where  
ideas can become  
reality

Where education  
is a pleasure and  
a challenge  
throughout life

Data-driven  
research that  
serves society's  
real challenges

A membership and an  
intellectual resource,  
physically and virtually



## 200 years of social development

This academic year, we are celebrating the 200th anniversary of KTH's founding. Throughout this period, we have refined the concepts of knowledge, research and education to meet society's needs and challenges.

Early milestones include the collaborative research that laid the foundation for our industry's international successes in electrical power engineering and the historical leadership

the country has shown in IT and telecom, not to mention the development in recent years of social robotics and data-driven biotechnology.

The strong ties to industry and society have contributed to the inclusion of KTH members among Nobel laureates and prominent global leaders.

Today we are a world leader in research and education in three overlapping fields: machine engi-

neering, built environment and nature engineering.

Machine engineering covers construction, manufacturing and operations of mechanical, electronic, optical and biological machinery and systems.

Built environment covers construction, production and operations of human and machine societies for a long-term, sustainable environment and existence that ensures a high quality of life.

Nature engineering touches upon all aspects of our environment – on earth and in space, as explored thus far. This field covers the areas required for developing and preserving our environment, including the extraction, processing and recycling of finite natural resources and renewable energy sources.

All KTH education offers in-depth studies in mathematics, programming and data-driven methods

for modelling, analysis and problem-solving, and for validating solutions. Our continuous educational improvements have helped us reach our goal for 100 percent of students passing tests and courses in these subjects – yet another milestone that has made KTH unique in the world.

At KTH, we have evolved from having a fixed location into a global community where knowledge lives and develops among our members, our partners, and at our 34 international campuses.



A membership that starts early

Name: Sara Betner  
Level: KTH Junior Academy  
Next goal: KTH Learning for Life

Superior instruction on the path to your dream job

Name: Sara Betner  
Level: 4  
Next goal: Certified civil engineer

Updating: New specialist module in leadership

Name: Sara Betner  
Level: 23  
Next goal: CEO

### KTH Junior Academy

Thanks to a close collaboration with preschools throughout the country, we can offer a place at KTH Junior Academy as early as the age of three. The goal is to give children the chance to develop their technical and mathematical skills as early as possible. Through natural play, they are encouraged to find their own path to engineering and science.

KTH Junior Academy is based on a pedagogical model with uniquely developed digital tools, as well as access to individual instruction intelligence – students have their own AI mentor from day one. KTH Junior Academy also has winter and summer camps for children and adolescents. This has contributed to education with more equal opportunities with greater diversity.

### KTH Learning for Life

Early on at KTH, you will gain a quick overview of the different paths that could lead to your success. We know that your knowledge and experiences are unique – our goal is to supplement them the right way.

Accordingly, the first three months at KTH could look quite different for each person. What all students have in common is an intense period of mathematics, programming and data-driven methods. Once this period is completed, you take the next step based on what you have learnt and what you prefer. For some students, this means a first job at one of the companies or organisations that participate in our programmes, where you can continue to grow at a fast pace with the company. Others might go on to advanced studies in a technical

field. A third group may take a first step on a multi-year journey toward the goal of obtaining internationally recognised certification as a civil engineer.

### Study freely and with guidance

Your relationship with KTH provides you with a life-long, quality-assured and continuously updated range of knowledge.

All learning happens in small modules that can be completed flexibly in terms of time and space. All components are available via distance learning, for example in virtual study groups, as well as on-site at one of our international campuses.

You can choose when and how you complete each component. If you want to spend time at one of our

campuses, KTH's entire organisation of housing, leisure activities and travel opportunities are available to you.

Your proficiency is measured in levels, and throughout your life, you have the option of upgrading to a higher level together with KTH. As a constant companion, your personal AI mentor is available with tips, advice and guidance.

We have merged some courses into goal-oriented combinations, and you can read more about them on pages 22-25. Each combination is designed in partnership with Swedish and international companies and organisations to address real societal challenges.

### KTH Membership

No matter the path you choose, your KTH membership will be with you on your journey. It serves as the foundation both of our relationship and of your educational journey. Through your membership, you will build your own unique programme and see what is possible to achieve.

All programmes require membership in KTH. You become a member after passing the entrance exam, which verifies your prior knowledge. If you need to sharpen your skills before the exam, we offer preparatory courses. Membership is life-long and you are welcome to continuously update your knowledge.

Your KTH membership provides you with a place in an international community for developing a humane technological society, with colleagues in broadly related technology fields. Thanks to your KTH membership, you will always be newly qualified and in good company. You will have life-long access to our programmes and your personal AI mentor, and you will be covered by KTH's unique job security solutions when between jobs or in the event of illness.

 Consult your AI mentor for suggestions for suitable course combinations for you.



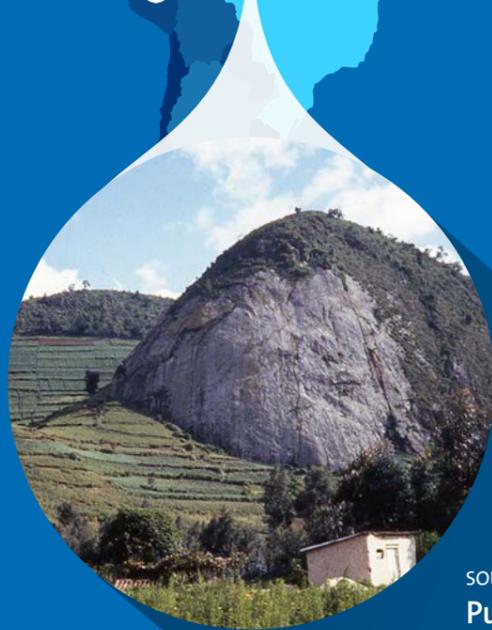
USA  
**KTH Spinoff Ventures** takes you to the next stage of entrepreneurship.



EUROPE  
 Be a step ahead as a **KTH Junior Academy** member.



ASIA  
 With world-leading partner companies, you will have access to some of the world's best laboratory environments.



SOUTH AMERICA  
**Pursue your education** near the object of your studies.



THE MIDDLE EAST  
**Study flexibly and combine virtual studies** with on-campus education.

All of our programmes are translated with language technology that we have developed. New languages for the 2027/2028 academic year are Haitian Creole and Tagalog.

## Always newly qualified

We know you face high demands throughout your career. KTH can be a natural partner for today's life-long learning path with multiple career changes. This is thanks to our unique education structure and our strong commitment to you as an individual.

Today, rigid educational programmes, unnecessary courses and stressful exams have been relegated to the past. We have eliminated fixed structures in favour of truly individualised learning that lays the foundation for a successful career. We offer you a relationship to knowledge that never ends.

KTH no longer applies concepts like 'graduate' or 'life after obtaining a degree'. Just continuous growth through fruitful relationships in a global world.

## KTH campuses – online, offline, virtual and IRL

KTH has campuses on every continent. Our starter package makes it possible to quickly set up new campuses where they are needed. The goal is for KTH to be a natural part of the development of the sustainable international community.

By participating on-site in regions and countries facing major challenges, we can take a leading role in local development. The countries where we have most recently established larger campuses include Rwanda, Turkmenistan, Bulgaria, Nicaragua and Bangladesh.



As a KTH member, you design your programme based on your interests and abilities.

All programmes require membership in KTH. You become a member after passing the entrance exam, which verifies your prior knowledge. Once you have obtained membership, you will have access to a personal AI mentor who will join you throughout your journey. Membership also gives you access to KTH's unique job security solutions.



**NAME:** Charlie Paratapong  
**EDUCATION:** Civil engineering

### MEMBER | Charlie

For Charlie, choosing KTH has meant a journey from the deepest forests of northern Sweden to a mega-city on the Atlantic coast. Even during her preparatory courses in 2022, she quickly saw the long-term advantages of membership.

*'I was incredibly nervous about the entrance exam, even if I passed all levels. Our team application was about neighbourhood-based volume regulation in the co-living neighbourhood on Östermalm. When we submitted our first proposal for partners, I thought, "Yes, we did it".'*

Today, Charlie belongs to the KTH campus in Lagos, Nigeria, where she is collaborating on a project that develops new solutions for groundwater management in urban environments. Meanwhile, she is still part of the membership section of upper Norrland for built environment.

*'I want to maintain my expertise through life-long learning in KTH's international community.'*



**NAME:** Allan Johar  
**EDUCATION:** Data-driven service and product development in biotechnology

### MEMBER | Allan

Several top universities around the world had attractive specialisations when Allan was choosing a university after high school. He chose KTH primarily due to its focus on projects and practically oriented problem-solving.

*'I'm currently working on my third-year project, which is a collaboration with students from other universities and with Region Stockholm and Greenwaste. Next week, we're going to present our case solutions at Stockholm City Hall.'*

*'My role is as a specialist in biotechnology and data-driven service and product development.'*

During his studies, Allan splits his time between Falköping and campus. This allows him to alternate studies with practical projects at the Greenwaste facility.

*'The campus periods are really intense and stimulating. I live with students from all over the world here. In my free time, I'm involved in the students' farce, which will be a restaging of the turn-of-the-millennium show: Gauss, or the Elimination of Unknowns in Systems.'*



**NAME:** Alice Sjökvist  
**EDUCATION:** Construction engineering and computer science

### MEMBER | Alice

Alice worked as a construction-engineer in several developing countries after obtaining her degree. A few years later, she became a supervisor at a highly diverse, multicultural organisation with many unexpected challenges.

*'Corruption made me crazy, along with discrepancies in quality awareness and business culture', says Alice.*

That experience led her down a new path. Through KTH's offer for members to continuously upgrade their knowledge, she can realise her goal. She is now taking courses with technical support for fighting corruption.

*'I'm studying data technology and analysis to construct systems for corruption-proof procurement. Courses in legal anthropology, policy issues and negotiation technique have been important for me. I already know construction'.*

She and two peers have designed a system that her previous employer has started to use.

*'Now they can handle customer contacts with full transparency and traceability, which eliminates bribery', says Alice.*

13:43  
-3 degrees



Exercise



Heart rate



Caffeine



Stress level

All KTH members are guaranteed an AI mentor. Based on your performance, your ability and your ambition, your AI mentor will lead you to your next level.

Imagine a building that adapts to the humans within it: their needs, movements and changes.

Housing available on KTH Beijing campus from 3 March.

Milestone: Work training, Green Empire, Guangzhou, China

Long-term goal: To run an architecture firm with a focus on sustainable, data-driven change

Shape-shifting materials

Adaptive architecture

Customer management in Chinese culture

Big data science

Boot camp: Engineering skills

## Your personal AI mentor follows you on your journey

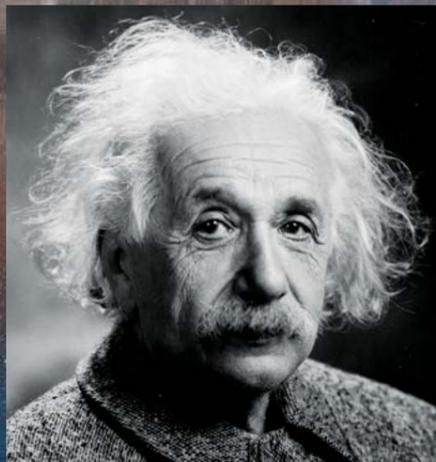
Those of you who have had your AI mentor since KTH Junior Academy know it well. From the first day at KTH, you will plan your path to a career together.

Your AI mentor is always available when you need advice or guidance. It is designed to grow with your performance, your ability and your own choices. It can serve as an

advisor in theoretical courses and provide long-term advice when selecting courses – whatever is required to help you develop the knowledge you seek and to find the most effective approach.

Your AI mentor is included as a part of your life-long KTH membership. It will remind you when it is time to upgrade your knowledge and show you which courses will suit you best.

So take advantage of your AI mentor. It can serve as a life-long academic and career counsellor. In addition, it is a natural way to maintain contact with KTH for alumni.



Personal AI mentor: **Olbert Geinstein**  
Role at KTH: Mentor since 2020  
Job: Advanced learning analysis, guidance

## KTH coaches lead project-based learning, while the digital tools take care of theoretical learning.

KTH coaches ensure that the education follows the rate of developments in the fields. All KTH coaches teach using digital teaching tools, both on campus and virtually. The tools are continuously updated and create opportunities for coaches to individually customise the education based on each member's abilities.



### COACH | Pontus

**As designer of the now iconic water-powered car Volounda, Pontus revolutionised the motor world. Today he is helping to shape a new epoch on campus.**

**NAME:** Pontus Gardener  
**EDUCATION:** Mechanical engineer  
**JOB:** Assistant professor

From having been a student on campus himself, Pontus has gone from one lab setting to another. In 2025, he returned to KTH's classic campuses on Valhallavägen, in Södertälje and in Stugan. This time as an assistant professor.

*'The role of coach got me interested in working with KTH's members and partners. I'm contributing to societal development in a concrete way here.'*

After eight years as a mechanical engineer in various roles in distributed production, he is sharing his experiences with new members. In addition, Pontus is focusing more on his own research in collaboration

with clients like Yoggle, the Swedish Civil Contingencies Agency and the Swedish Religion Association. He is also behind the launch of the brand new virtual laboratory at the Valhallavägen campus, with a focus on ethical logistics.

*'In 2016, when I was helping to plan KTH's vision for 2027, that year felt really distant, but it's incredible to see how things that were ambitious goals at the time have largely become a reality.'*

### COACH | Zeynep

**Among the most famous coaches on campus is the architect behind today's smart cities: Zeynep Svensson. Today, she develops the programme in large-scale system simulation.**

**NAME:** Zeynep Svensson  
**EDUCATION:** Construction engineer  
**JOB:** Professor and head of the course combination in large-scale system simulation

Large-scale system simulation is KTH's response to many of the societal changes of the mid-2010s. No one had a customised, cutting-edge programme for managing the challenges of an ageing population, urbanisation and climate change.

Zeynep helped design the programme to begin training the personnel in demand by companies and society.

*'The classic problem that we especially needed to address in the programme was the ability to work in an interdisciplinary fashion.'*

The programme admits students regardless of their prior training.

Coaches analyse members' skills and build an engineering programme accordingly. Almost two-thirds have a non-technical undergraduate education.

*'The course modules are formulated by the actual challenges that organisations and individuals add to our database. The students investigate five cases and implement solutions together.'*

**AWARD:**  
In 2020, Zeynep Svensson received the prestigious UN Habitat Award for her work in urban development for integration.

12%  
focus

92%  
focus



All KTH alumni have access to a life-long, curated, quality-assured and continuously updated range of knowledge.

KTH membership is life-long and you are welcome to continuously update your skills. Your personal AI mentor will encourage you to continue your education to ensure your career development. New milestones are set up and you can rest assured that your expertise will never become obsolete.



**NAME:** Fatima Law  
**EDUCATION:** Digital law with a master's in cultural anthropology  
**CERTIFIED:** 2024  
**JOB:** Data-driven lawyer at the Swedish Tax Agency

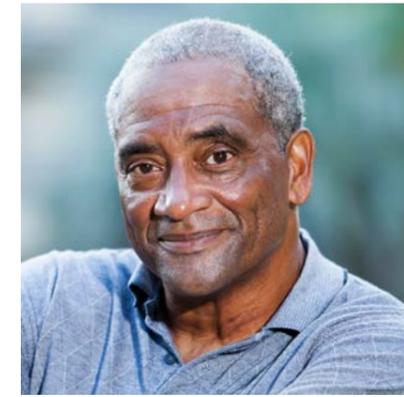
### ALUMNUS | Fatima

Fatima belongs to the growing group of KTH members who maintain a close relationship with the academic world. She studied digital law after having participated in one of KTH Junior Academy's first summer programmes when 15 years old.

*'We started with very playful problem-solving. Gradually we got to try more and more complex tasks, and a lot of what I learned then has been useful later in my life. Both during my education and in my career.'*

She now works at the Swedish Tax Agency, which has been a KTH partner since 2019. At that time, the agency was facing major challenges in the application of the new international blockchain-based tax system.

*'KTH's programmes mobilised leading international partners and made sure we now have cutting-edge expertise here at the Swedish Tax Agency. Through the partnership with the data-driven civic development programme at KTH and with other partners, we've successfully renewed our approach to handling international tax flows, making it easier for citizens to have more sustainable behaviour.'*



**NAME:** Oscar Joenson  
**EDUCATION:** Master's degree in social engineering as well as political science and history of religion  
**CERTIFIED:** 2023  
**JOB:** Conflict resolution officer – specialising in religions

### ALUMNUS | Oscar

An engineering degree can lead to unexpected turns in life. That became clear to Oscar, who currently works in the world's trouble spots. His job as a conflict resolution officer involves studying religious conflicts and extremism. By breaking down and analysing the underlying causes, he can create a hopeful future in conflict-torn areas. After his studies, he is still in close contact with newer members of the KTH community.

*'I've implemented a training programme that helps that helps make tensions between religions and beliefs into theological discussions, rather than war. I also supervise case studies in the programme. This way, I can help engineers understand the reality of working in conflict situations.'*

He conducts his job as a mentor remotely via video calls from the field where he works.

*'I broadcast the negotiations live. Then the students can help me solve the problems that arise in my work. I don't have any employees, so the students play a crucial role.'*



**NAME:** Boa Laval  
**EDUCATION:** Electrical engineer, ethical engineering and design  
**CERTIFIED:** 1974, 2023  
**JOB:** Senior, mentor, self-employed

### ALUMNUS | Boa

Boa, 77, is the third generation in his family to study engineering on campus Valhallavägen.

*'My father and grandfather were mining engineers, but I broke away from family tradition a little and became an electrical engineer.'*

After his studies, he spent a few years working at a world-leading Swedish telecom company. He soon started his own company, when patents still had significance on the market. Simultaneously, he realised there was demand for top-performing engineers with expertise in philosophy and ethics. Through the KTH community for senior members, he took the initiative to build up a new engineering programme with a focus on the humanities. In his 70s, he completed the programme at a rapid pace.

*'It was satisfying on an existential level. Working interactively has given me tools to develop my company. Now I see other useful perspectives when serving as an innovation consultant for the Government Offices.'*



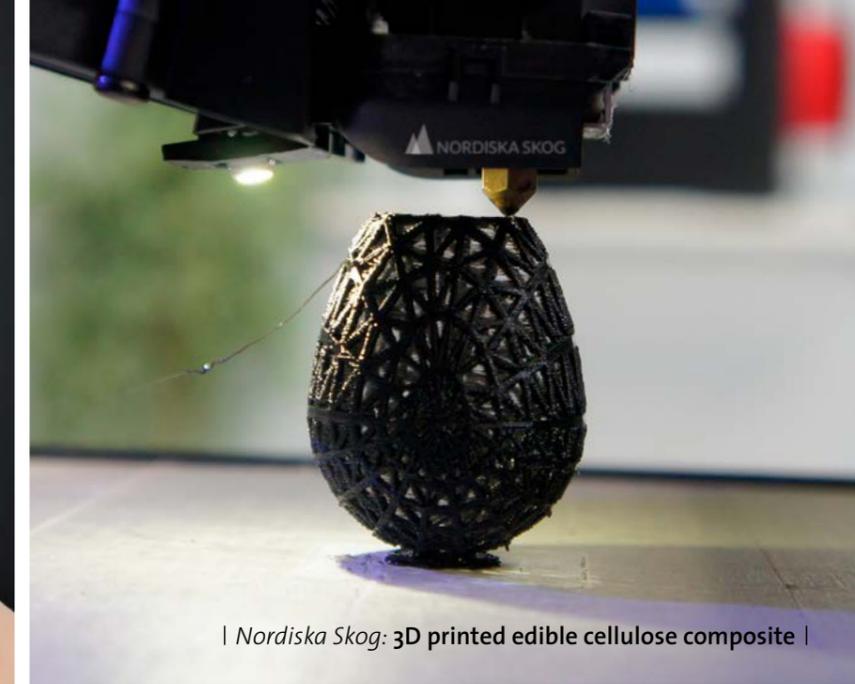
‘We offer employment the day you start studying at KTH’

– Patrol

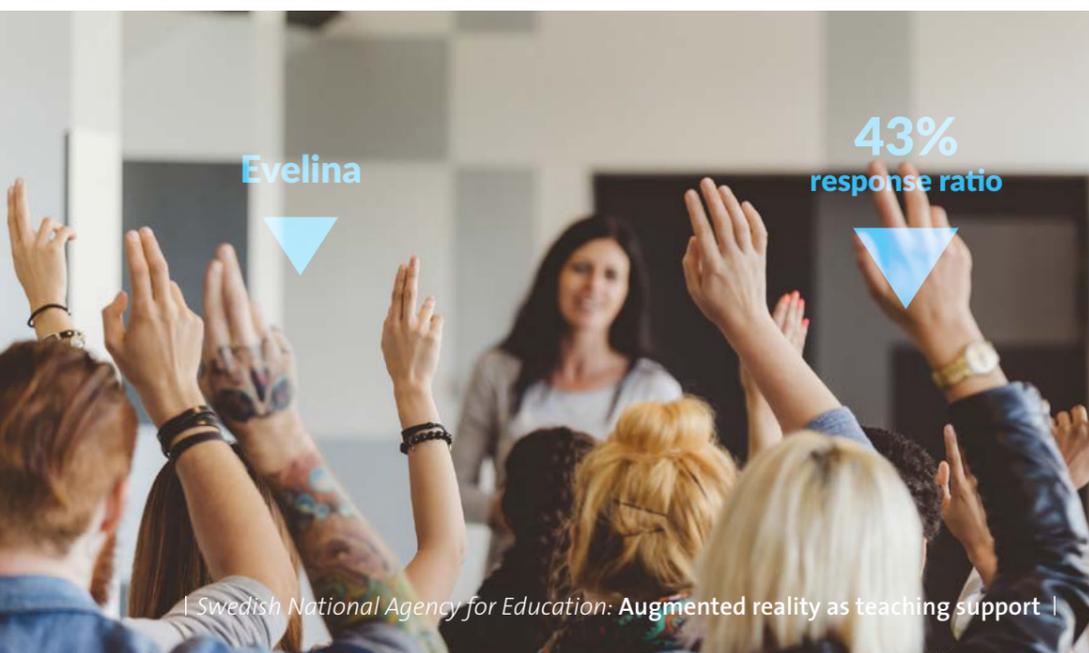
| Patrol: Autonomous micro-submarine clears arteries |



| Aye: MMORPG player builds an avatar |



| Nordiska Skog: 3D printed edible cellulose composite |



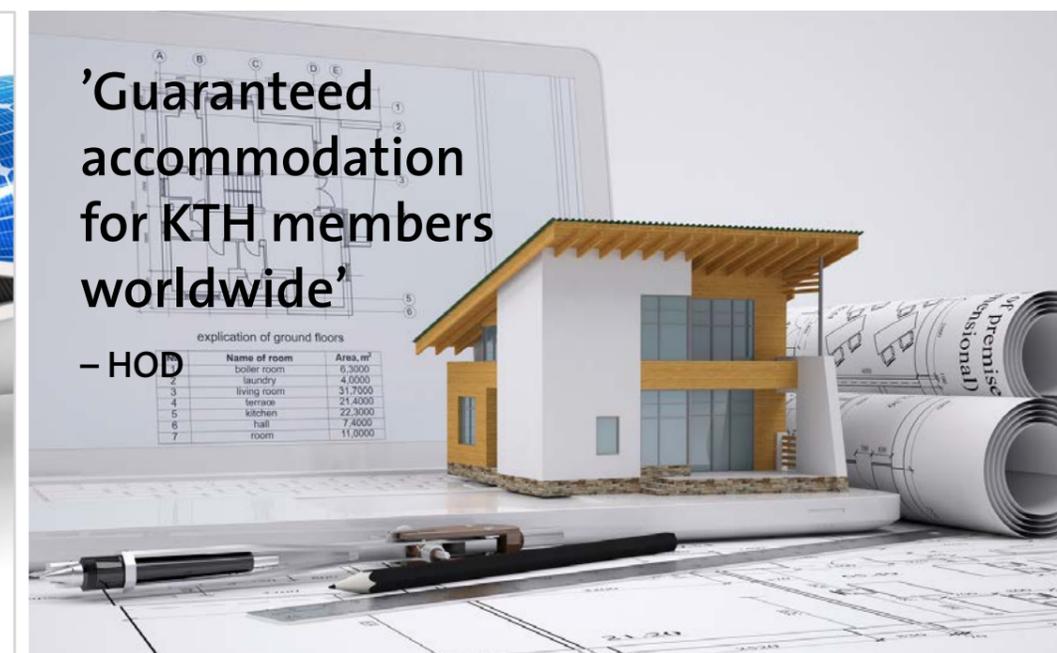
Evelina

43%  
response ratio

| Swedish National Agency for Education: Augmented reality as teaching support |



| QED Tech: Solar-powered transport |



‘Guaranteed accommodation for KTH members worldwide’

– HOD

explication of ground floors

Name of room	Area, m <sup>2</sup>
boiler room	6,3000
laundry	4,5000
living room	31,7000
terrace	21,4000
kitchen	22,3000
hall	7,4000
room	11,2000

### PARTNER | Patrol

Patrol’s micro-submarines are used routinely in health and medical care today to clear arteries in patients with cardiovascular disease. The autonomous submarines are the result of the 2016 Nobel Prize-winning development of molecular machines in combination with research in materials and nanotechnology at KTH. All R&D is still conducted within KTH owing to the collaboration that provides the company space in the KTH House of Innovation & Growth – a meeting place for established companies, start-ups, students and researchers.

### PARTNER | AYE

Aye is currently the world’s biggest massively multiplayer online role-playing game (MMORPG). Almost 1.35 billion players have built their own avatars in the game and spend an average of over an hour a day connected. Today, most people know the idea for Aye is based on the award-winning book Level Up, but they may not know that it was developed in collaboration between the Swedish gaming industry and KTH’s researchers in visualisation, scientific computing and theoretical computer science. The company behind Aye consists of 85 percent KTH members.

### PARTNER | Nordiska Skog

Global paper giant Nordiska Skog’s multi-century-long history is deeply rooted in Sweden’s processing of its natural resources. Nordiska Skog has always had a natural place among KTH’s 20 strategic partners. The company sees the partnership as necessary for staying at the forefront of developments, something that requires continuous access to top-rate engineers. The partnership has resulted in the processing of cellulose for new materials that can replace both plastic and steel and that can be used in most household 3D printers.

### PARTNER | Swedish National Agency for Education

The partnership of the Swedish National Agency for Education with KTH has been a key factor in turning around the 2010s plunging school results to achieve new heights by using technology and data analysis. Projects have resulted in virtual teaching environments, platforms on tablet, educational games in Swedish and specially designed sensors that show when the attention of students decreases in the classroom. In addition, all key individuals in the agency attend a customised programme at KTH to further enhance education quality.

### PARTNER | QED Tech

Indonesia’s leading telecom company, QED Tech, is a common link for collaborations between the KTH campuses in Jakarta and Stockholm. Together, they have laid the foundation for the implementation of an intelligent transport system (ITS) that has freed the country from fossil-fuel traffic in favour of a solar-powered vehicle fleet. Crucial factors for the collaboration have been the ability of KTH students to successfully work with problem-solving, analysis of complex data sets, project management and their ultra-sharp ethical compasses.

### PARTNER | HOD

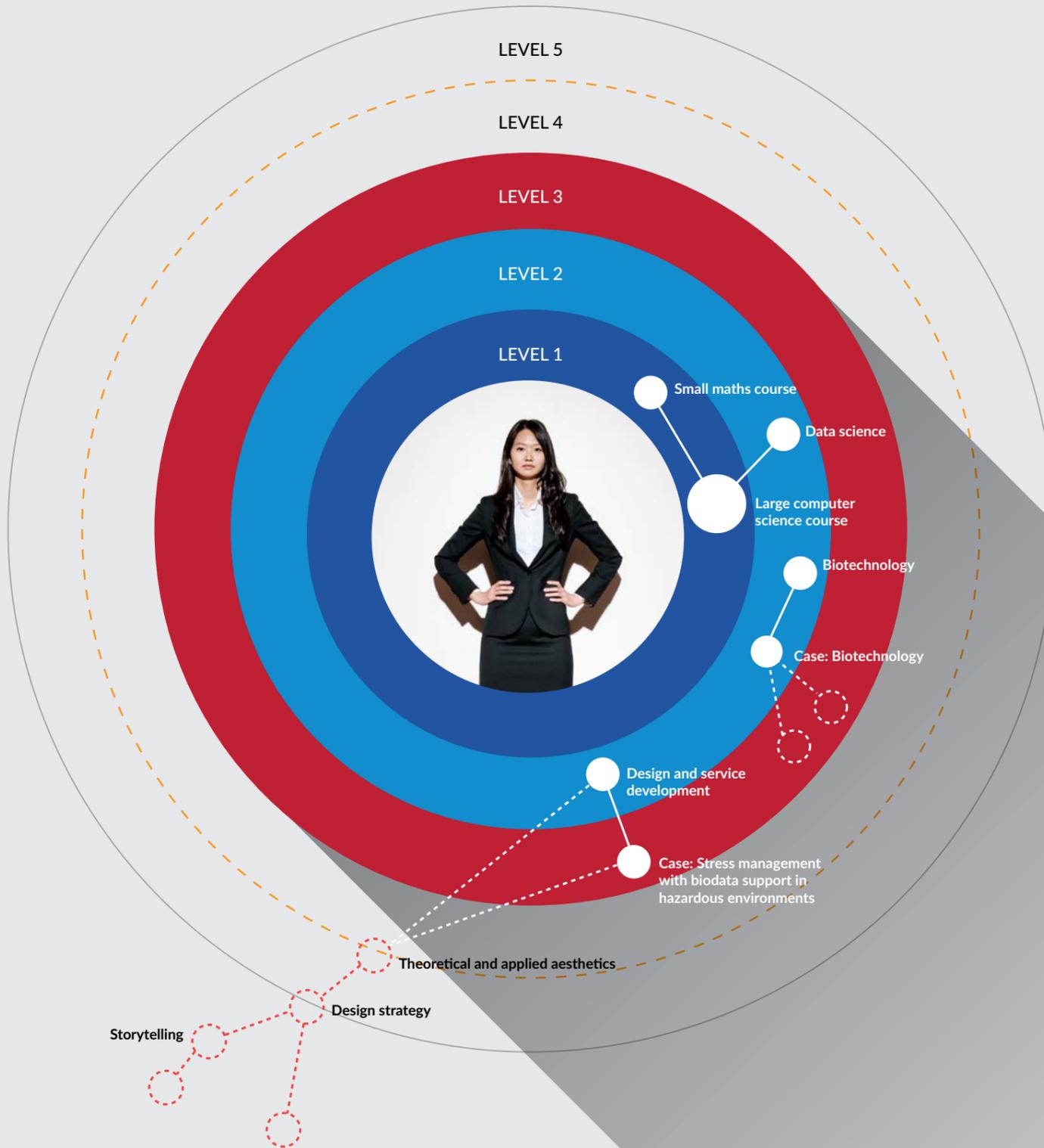
KTH has a close partnership with Housing On Demand (HOD), which has one of the world’s biggest international networks of temporary housing. Every year, KTH develops new, custom solutions in partnership with HOD, with a focus on financial and environmentally sustainable housing. The type of accommodation offered to a KTH member is determined on a case-by-case basis using a careful compatibility and needs analysis. Housing contracts run from two days to a maximum of two months.

Name: **Elsa Ly**  
 Member since: **2023**  
 Level: **3.4**  
 Passion: **Passion for coding**

Course combination:  
**Data-driven service and product development in biotechnology**

Language of study:  
**Vietnamese**  
 Campus: **Online**

Next milestone:  
**Working study at Orbis cura**



COURSE COMBINATION:

## Data-driven service and product development in biotechnology

**Are you looking for an in-depth understanding of biotechnology and data-driven capacity for new innovations? Do you see yourself as a leader in the development of new products and services? Then this course combination will give you the knowledge and experience you need to break new ground.**

In recent decades, R&D in biotechnology combined with computer science have pioneered significant improvements in global health. We now face the task of developing our collective knowledge into sustainable and innovative products and services.

### Programme and format

The focus here is on providing you with highly specialised knowledge in biotechnology, as well as general knowledge and experience in data-driven service and product development. The programme is based on open knowledge components with students' own data collection, but also clearly defined modules to ensure their knowledge development.

The biotechnology modules are given on campus in lab-intensive and teaching-activating formats, and as online alternatives. To guarantee true excellence, the teaching material is the best available from the leading institutions collaborating in the combination. The programme includes case studies and projects defined by KTH's strategic partners, such as Nordiska Skog and Region Stockholm. In several cases, participants include alumni and students from Stockholm's other universities, including the Stockholm School of Economics, Stockholm University and Karolinska Institute.

Examples of past cases:

- Build an autonomous robot with social characteristics for elderly and medical care.
- Help a pharmaceutical company to measure, analyse and control distance treatment of a connected patient.
- Develop templates for at-home 3D printing of connected bandages based on nanocellulose.

### Jobs and the future

Upon completion of the data-driven course combination, a wide open labour market is at your fingertips. With this expertise in biotechnology and material medicine, you will be able to contribute solutions where they will provide the most benefit. Many members work in health and medical care, in large biotech companies and smaller biotech start-ups, and in important social institutions and insurance companies.

Labour market:

- International health and medical care.
- Biotech companies, both start-ups and global players.
- Government agencies, insurance companies, pharmaceutical companies.
- R&D in health and medical care.

### Admission and prerequisites

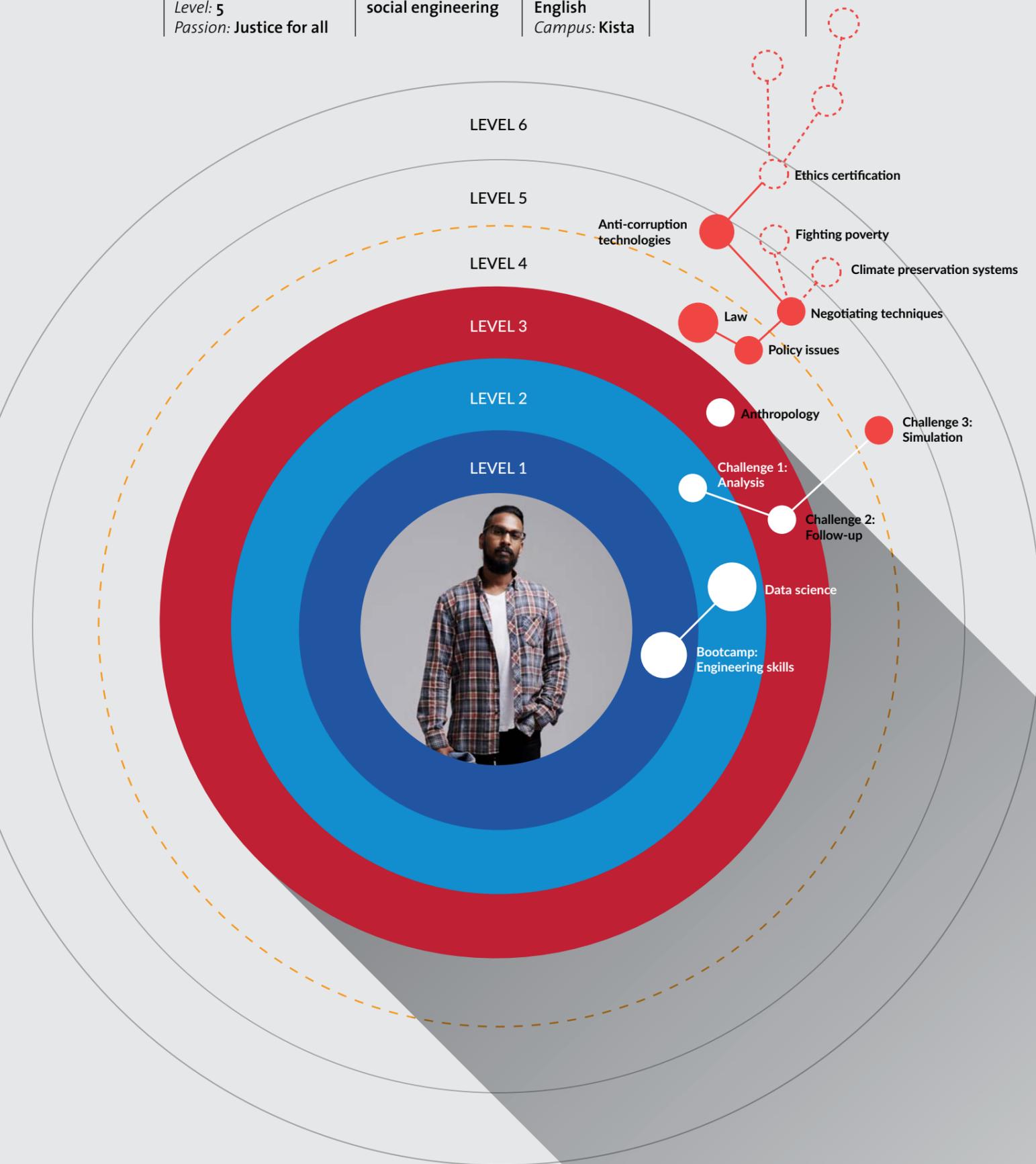
The course combination is provided in various large modules, the larger of which have specific prerequisites from upper-secondary school, while the smaller ones only have general requisites for admission. Naturally, KTH also offers preparatory courses that qualify graduates for the larger packages, both in the form of an intensive distance learning programme and an embedded boot camp at one of KTH's campuses.

Name: **Fredrik Robinson**  
 Member since: **2017**  
 Level: **5**  
 Passion: **Justice for all**

Course combination:  
**Expert training in  
 social engineering**

Language of  
 study:  
**English**  
 Campus: **Kista**

Next milestone:  
**Ethics certification**



COURSE COMBINATION:

## Expert training in social engineering

**Are you passionate about solving conflicts and fighting injustice globally? Are you looking for a challenge that will make a difference for people around the world? After completing the course combination in social engineering, you will have the right background and contact network to change the world.**

The programme originated in the turbulent period of 2016-2017, when the world faced difficult social challenges. At the time, KTH initiated development of an expert programme together with other leading international universities. The programme shapes solution-oriented individuals to analyse, break down and solve major societal problems, both in individual countries and internationally.

### Programme and format

The programme is tailored based on a database of actual problems collected by international companies, organisations and agencies. The challenges students have tackled include the previous corruption in developing countries, the fight against poverty and climate issues from an international perspective.

All challenges represent threats rather than immediate crises. The idea is that working to find a solution will help students think more long-term and provide them with an ability to lead the way to more sustainable global development.

The course combination uses case studies where large-scale system modelling is an important tool for problem formulation and management. Based on this modelling process, problems and threats are analysed and broken down into smaller, more manageable components. Specialists contribute from international universities under the leadership of KTH's teachers, who are responsible for process and quality assurance.

Case studies are usually carried out with frequent field visits, giving students a unique contact network and

practical experience leading diverse teams – often in demanding environments. Most students have a liberal arts or social sciences background, so the course combination begins with an intense boot camp in engineering skills. Students receive the proper training and experience to quickly grow into excellent system engineers.

The combination of courses give students modelling expertise based on business models/process models of equal parts:

- analysis
- follow-up
- simulation

### Jobs and the future

The labour market is broad, with employers in the public and private sectors. Many students specialise in areas such as:

- anti-corruption technologies
- religious conflict management
- climate change

### Admission and prerequisites

Social engineering requires inquisitive and courageous individuals with a calling to contribute to human development. Many applicants already have degrees and experience as social workers, teachers or journalists.

You will be accepted after taking an entrance exam that not only lays the foundation for customising your course plan, but also identifies personal characteristics and problems that need addressing. Based on this, individualised syllabus will be formulated and you will be assigned to a team of appropriate classmates.

Acceptance occurs after the entrance exam, which also takes personal characteristics and experiences into account. The test is used to determine:

- the course combination
- individual customisation
- choice of case studies and challenges



Jean Bodega, Pär Svanstedt and Joan Hallstensson

COMPANY: Second Skin  
INCUBATOR: KTH Spinoff Centre Gothenburg  
FOUNDED: 2021

**When it comes to successful spin-offs from KTH, Second Skin has raised the bar. The company's research in cell regeneration and synthetic skin has led to major successes in medicine and beauty care.**

*'KTH has been a very important part of our success. Indeed, this is where it all began when Pär, Jean and I submitted our joint thesis in biotechnology almost nine years ago. In our thesis, we showed how cell regeneration in sharks could lay the foundation for brand new technology for manufacturing synthetic skin', says KTH member Joan Hallstensson, founder of Second Skin.*

The thesis described the theoretical foundation, which the three then developed into practical methods in laboratories at KTH.

*'Once we and our professors were able to show real technical advances, it wasn't a big leap to start a company. Thanks to the strong support for innovation at KTH, we quickly found both capital and developed a solid business idea.'*

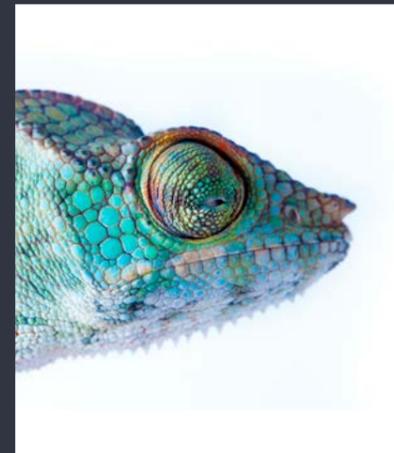
Today, success is a fact for Second Skin, which quickly evolved into an internationally leading biotech company. All R&D still takes places in close partnership with KTH, and most employees are recruited from among KTH members.

Recipients of the KTH Spinoff Ventures Award receive EUR 3 million and a permanent place on KTH's strategic innovation council. KTH Spinoff Ventures is an investor in Second Skin.



### Thirty years younger with synthetic skin

'Cell Boost® is the core of our technology and is based on the very first studies we conducted. These studies describe the basic techniques and methods that can be used to turn back the skin's clock almost 30 years. The result is a significantly rejuvenated appearance every time. Today the treatment is very affordable and can be administered at most three times in a lifetime.'



### Adaptive decor changes colour & shape

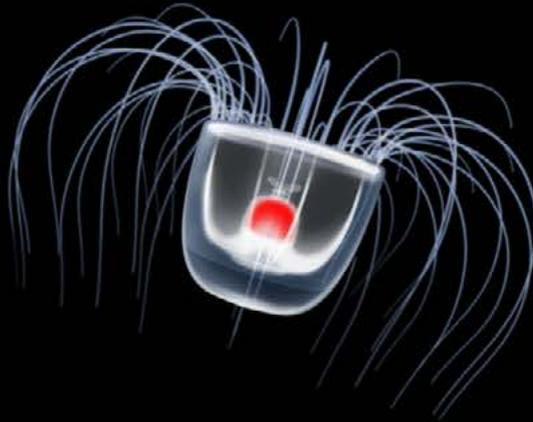
'Thanks to our partnership with KTH, we recently had the chance to take yet another step in the development of our cell technology. Dynamic H is a product aimed at the fashion industry and tattoo parlours and will launch next autumn. It can replace parts of your own skin and the colour, shape and texture of the surface can be updated at any time'.



### Tomorrow's prosthetics are here

'Synte o® is the first version of our synthetic skin that can be applied to modern prosthetics. You have all the extra features of a modern prosthetic, but now with the warmth of human skin. Synthetic skin maintains the same temperature as the rest of your body'.





The project KTH Education of Tomorrow describes possible scenarios for students, teachers, alumni and employers ten years from now.

Visions of the future can often be fuzzy, so we have created concrete descriptions that we hope will encourage discussion and efforts developing programmes for the 2027/2028 academic year.

This catalogue is a thought experiment and in no way represents a commitment by KTH to offer the programmes or concepts described herein. Even so, we can always hope.

[www.kth.se](http://www.kth.se)

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