



EngD Q&A | October 31, 2024

WHERE INNOVATION STARTS

October 2024

Online Q&A session

4TU.SAI

EngD information this session



- About EngD: curriculum, admission requirements, EngD v. PhD, locations, application procedure
- Experience EngD trainee Maas (Software Technology)
- Experience EngD trainee Saba (Data Science)
- Questions and information sources

A few guidelines



- Please put your microphone on 'mute'
- Questions during the presentation? Please pose them in the chat, they will be answered after the presentation
- This session will be recorded, so it is possible to re-watch it afterwards



About EngD | Tiberiu

DOING COOL STUFF THAT MATTERS

Introduction / Data Science

Online Q&A session

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Why an Engineering Doctorate?

- ✓ You want to **deepen your expertise**

Advance your knowledge in specialized fields



Why an Engineering Doctorate?

- ✓ You want to **deepen your knowledge**
- ✓ You want to **gain real-world experience**

Apply your technical knowledge in real-world contexts, with real stakeholders.



Why an Engineering Doctorate?

- ✓ You want to **deepen your knowledge**
- ✓ You want to **gain real-world experience**
- ✓ You want to **develop your professional skills**

Develop your communication skills, your problem-solving mindset, work on your leadership skills.



Why an Engineering Doctorate?

- ✓ You want to **deepen your knowledge**
- ✓ You want to **gain real-world experience**
- ✓ You want to **develop your professional skills**
- ✓ You want to **engage in industrial projects**

Learn what it takes to run a real-life project in industry, experience the design process, manage your stakeholders.



Why an Engineering Doctorate?

- ✓ You want to **deepen your knowledge**
- ✓ You want to **gain real-world experience**
- ✓ You want to **develop your professional skills**
- ✓ You want to **engage in industrial projects**
- ✓ You want to **launch your industrial career**

Build a strong foundation for an industrial career.



Why an Engineering Doctorate?

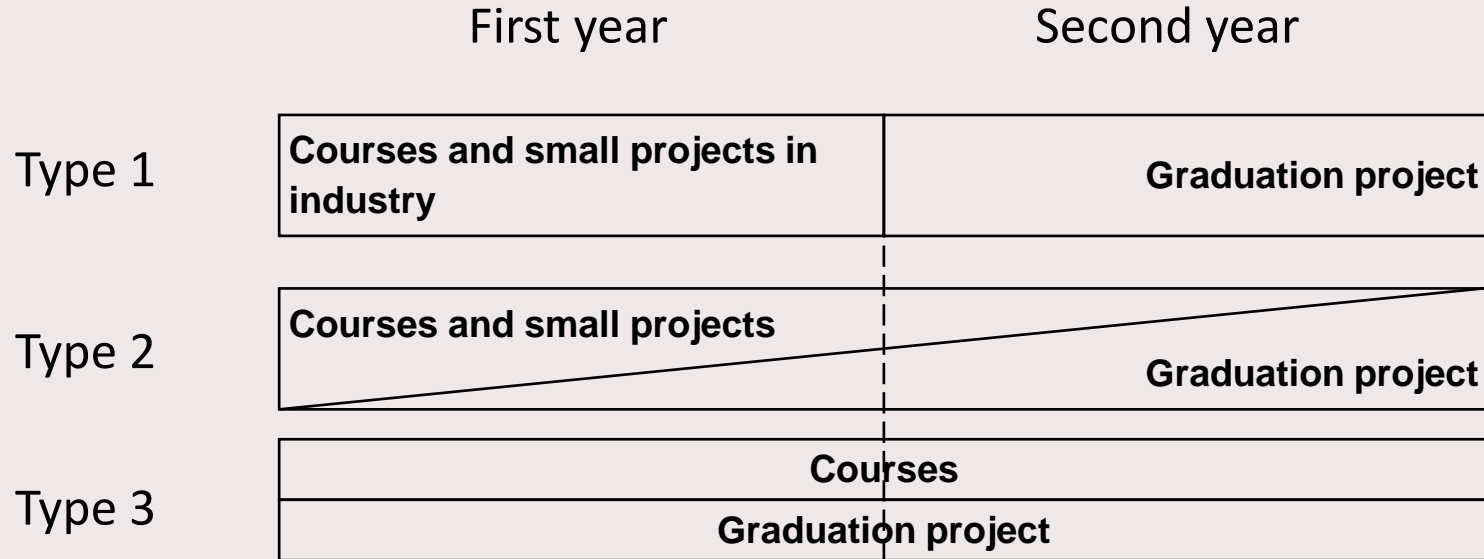
- ✓ You want to **deepen your knowledge**
- ✓ You want to **gain real-world experience**
- ✓ You want to **develop your professional skills**
- ✓ You want to **engage in industrial projects**
- ✓ You want to **launch your industrial career**
- ✓ You want to **earn while you learn**



What is a typical Engineering Doctorate program?

- A two-year post-master program
- You will deepen your technological knowledge, gain practical experience with design methods, and work on your professional skills. You will spend roughly one third of your time on these activities.
- You will do small training projects and a technological design project for a leading high-tech or medical company, a startup or with governmental organizations. You will spend roughly two thirds on projects.

What is a typical Engineering Doctorate program?



General requirements for an EngD

- MSc degree, preferably at least 120 ECTS, preferably in exact sciences
- Excellent English proficiency in writing, speaking, reading, and understanding
- Designer qualities: critical thinking on various level of abstraction, in terms of system and products



Differences EngD and PhD

EngD

- Two-year program
- Design assignment in high-tech industry or healthcare
- Become a technological top-designer
- EngD degree

PhD

- Four-year program
- Fundamental research at university or in collaboration with industry
- Become an independent researcher
- PhD degree

19 EngD programs



- **Eindhoven University of Technology** [8 EngD programs, of which 1 at JADS in Den Bosch](#)
- **University of Twente, Enschede** [5 EngD programs](#)
- **Delft University of Technology** [3 EngD programs](#)
- **Wageningen University & Research** [1 EngD program](#)
- **University of Groningen** [2 EngD programs](#)

8x EngD at Eindhoven University



1. Automotive (& Mechatronic) Systems Design
2. Data Science (at JADS, Den Bosch)
3. Software Technology
4. Design of Electrical Engineering Systems
5. Designing Human-System Interaction
6. Clinical Informatics (*in Dutch only*)
7. Qualified Medical Engineer (*in Dutch only*)
8. Smart Buildings & Cities

TU/e

EINDHOVEN
UNIVERSITY OF
TECHNOLOGY

JADS

Jheronimus
Academy
of Data Science





**UNIVERSITY
OF TWENTE.**

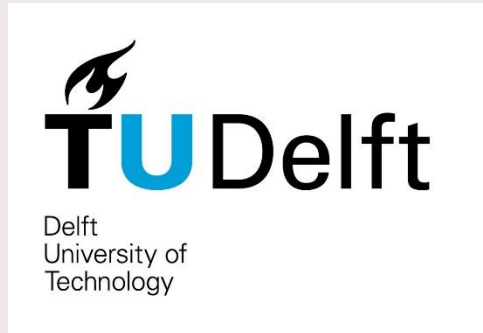
5x EngD at University of Twente

1. Business and IT
2. Civil Engineering
3. Energy and Process Technology
4. Maintenance
5. Robotics



3x EngD at Delft University

1. Process and Equipment Design
2. Designer in Bioprocess Engineering
3. Civil and Environmental Engineering





1x EngD at Wageningen University

1. Design for Agrifood and Ecological Systems



Please note that the EngD **setup** at Wageningen University & Research is slightly different from the other 3 universities of technology: it contains more elective courses and is less standardized, following the program parttime is also possible



2x EngD at University of Groningen

1. Autonomous Systems
2. Sustainable Process Design



rijksuniversiteit
 groningen

How to apply for an EngD

Each [EngD program](#) has its own starting dates, admission requirements, and selection procedure. On each program page you can find specific information regarding the procedure for that program.

For [EngD Data Science](#) the application procedure is different and incorporates a Data Challenge Week in October/March





EngD Experience | Maas

BUILD WHAT MATTERS

Software Technology

Online Q&A session

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About me

- Bachelor's and Master's degree in Computer Science & Engineering from TU/e
- Passion for solving societal challenges
- EngD to develop myself as quickly as possible
- To transition into the industry smoothly
- Love cooking



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TECHNOLOGY



My Projects

- World Wildlife Fund (WWF)
Deforestation prediction around the pantropical belt
- Digital Twin Lab & Cordis
Digital twin design and implementation of manufacturing facility
- ASML
Root-cause discovery of test failure



Project Roles

- Project Manager
- Product Owner
- Lead Architect
- Scrum Master
- Quality Manager



Recommendations



Take full ownership of your learning – if you invest, the rewards are immense



Use your coaches and the available resources and take initiative to get the most out of it



Take risks – this is the moment to fail and learn



Getting paid to learn and develop yourself is a gift, treat it as such

An average week

During education modules:

- 70% classes
- 30% assignments / self-study



During projects:

- 15% classes and assignments
- 85% working on the project



Friday afternoon:

- Winding down with colleagues





EngD Experience | Saba

DOING COOL STUFF THAT MATTERS, WITH DATA

Data Science

Online Q&A session



Jheronimus
Academy
of Data Science



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TECHNOLOGY

About me

Origin: Born in Tehran, Iran

Education:

- Bachelor's and Master's in Tourism Management
- PhD in International Marketing Management
- Visiting PhD student at JADS – PhD thesis: *Data Entrepreneurship in the Health Care Industry* (Focus: Text Mining and Topic Modeling)
- EngD in Data Science – Gaining practical experience in DS through close collaboration with industries, while becoming familiar with diverse work cultures

Hobbies: Painting, Playing piano, Yoga, Cooking, Traveling, Datory



EngD in Data Science: Opportunities and Challenges

1st Year (Teamwork):

- Focus on **soft skills** and technical skills
- Hands-on experience with **three training projects**
- **Data Challenge Weeks (DCWs)**
- **Self-development:** Courses, workshops, conferences
- **Challenge:** Balancing projects, modules and DCWs

2nd Year (Individual):

- Deep focus on a **specialized area**
- Full responsibility for the **final project**
- **Challenge:** Managing your own work and outcomes

The supportive JADS community and its majestic building!



My Projects

- **IKEA**

Order Imperfection Prediction



- **Essent**

Forecast-error Augmentation



- **Van Lanschot Kempen**

The Future State of Customer Due Diligence



DCWs: Bridgestone, Essent and Omron

Final Project: RESTRETCH at Vos Logistics

Analysing event logs to identify vulnerabilities and inefficiencies in logistics processes





Questions & Answers | Ask away

CREATING INNOVATION

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Ask away!



Questions after this session?

Visit the **Career Days** in 2025:

- Wageningen: February 4
- Delft: February 17
- Twente: February 26
- Eindhoven: March 11



Send us an **E-mail** on
InfoEngD@tue.nl



Visit the **website**, which features
the latest events and brochures
and info: www.4tu.nl/sai

 **TU Delft** Delft
University of
Technology

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TECHNOLOGY

UNIVERSITY OF TWENTE.

 **WAGENINGEN**
UNIVERSITY & RESEARCH

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Thank you