

# SMART PRODUCTS & AI-DRIVEN DEVELOPMENT

# MSc

Full-time



This program blends technical and business expertise to create intelligent, connected products. It emphasizes the practical use of cutting-edge AI technologies, including generative language models, edge computing, and machine learning, for system analysis and prediction.

## OVERVIEW

- >> Master`s Degree Program
- >> Full-time; 4 Semesters
- >> Taught 100 % in English
- >> 30 Study Places/Year
- >> € 363,36/Semester + Union fees  
Fees may differ for non-EU students

## SPECIAL FEATURES

- >> Study Trip (1 week)
- >> Job-Friendly: Courses Wed-Fri
- >> Max. 30 % E-Learning



# SMART PRODUCTS & AI-DRIVEN DEVELOPMENT

MASTER'S DEGREE PROGRAM | MSc | FULL-TIME



Jul 2025

## PROGRAM CONTENT

- >> Developing intelligent, networked products
- >> Production, programming & data analysis
- >> Applying system analysis & problem solving
- >> Using AI for product development & lifecycle
- >> Developing project management skills
- >> Interdisciplinary work in international teams

## POPULAR OCCUPATIONAL FIELDS

- >> Product Developer for smart products and solutions
- >> Technical Product Manager
- >> Innovation & Technology Manager in the field of digitalization
- >> Expert in the field of Internet of Things

"I chose this degree program because it allows me to expand my area of expertise and makes me even more attractive on the job market."

Verena Schmidt, MA  
Graduate

## CURRICULUM

| SEMESTER      | 1  | 2  | 3  | 4  |
|---------------|----|----|----|----|
| ECTS Credits* | 30 | 30 | 30 | 30 |

### COURSES

|                                  |   |   |   |   |    |
|----------------------------------|---|---|---|---|----|
| PRODUCT DEVELOPMENT & MANAGEMENT | Embedded Systems & Edge Analytics                   | 5 |   |   |    |
|                                  | Sensors & Actuators                                 | 5 |   |   |    |
|                                  | Smart Product Development                           | 5 |   |   |    |
|                                  | AI-based Product Design                             |   | 5 |   |    |
|                                  | Project Management & Team Leadership                |   | 5 |   |    |
|                                  | Rapid Prototyping                                   |   | 5 |   |    |
|                                  | Risk Management & Compliance                        |   | 5 |   |    |
|                                  | Manufacturing & Material Science for Smart Products |   |   | 5 |    |
| DATA MGMT.                       | Product Management                                  |   |   | 3 |    |
|                                  | Coding & Applied AI                                 | 5 |   |   |    |
|                                  | Connectivity & Security                             |   | 5 |   |    |
| DIGITAL TRANSF.                  | Data Analytics & Visualization                      |   |   | 5 |    |
|                                  | Digital Transformation & Change Management          | 5 |   |   |    |
|                                  | Fundamentals of AI                                  | 5 |   |   |    |
|                                  | Strategy, Business Model & Organization             |   |   | 2 |    |
| ELECTIVES                        | Ethics & Privacy                                    |   |   |   | 3  |
|                                  | Application-oriented Analysis Platforms (elective)  |   |   | 4 |    |
|                                  | Internet of Things (IoT) (elective)                 |   |   |   |    |
|                                  | Data Visualizations & Visual Analytics (elective)   |   |   | 4 |    |
|                                  | Digital Twin & Simulation (elective)                |   |   |   |    |
|                                  | Trends in Data Science (elective)                   |   |   |   | 3  |
| INT.                             | Trends in Smart Products (elective)                 |   |   |   |    |
|                                  | Study Trip  |   | 5 |   |    |
| PRAXIS-TRANSFER                  | Business Project                                    |   |   | 5 |    |
|                                  | Research Methods                                    |   |   | 2 |    |
|                                  | Master's Thesis Colloquium                          |   |   |   | 2  |
|                                  | Master's Thesis                                     |   |   |   | 22 |

(elective): Elective modules in cooperation with the Master's degree program Data Science & Intelligent Analytics:  
Choose 2 of 4 courses in 3rd Semester; 1 of 2 in 4th semester.

\* ECTS: European Credit Transfer System, amount of work for students per lecture (1 ECTS = 25 h.).