

## ESSLINGEN

AN IDEAL PLACE TO STUDY



The city of **Esslingen** has a population of over 93,000 inhabitants, and lies nestled in the vineyards overlooking the Neckar valley. Stuttgart, the capital city of Baden-Wuerttemberg, is only 20 kilometres away.

Near the university, there are many hiking paths through the vineyards and forests that can be explored on foot, by bicycle or segway. Within the city, there are many parks, the city castle, waterways, street cafés and theatres. In the winter, the old city centre lights up with a Christmas market; in the summer, live music, open-air cinemas and artisan's markets make Esslingen come to life. Esslingen's historical city centre, with its half-timbered houses, its cafés and its diverse cultural life, is an ideal surrounding for a successful study time.

**Esslingen** has a history reaching back over 1,200 years, a history in which tradition and progress have gone hand in hand. Since its industrialisation, Esslingen has been a major centre for engineering education, and it is this mixture of technical prowess and cultural tradition that makes Esslingen an ideal place to study.

Design und Satz: [www.weiser-design.de](http://www.weiser-design.de)

## HOW TO APPLY

### Esslingen University of Applied Sciences

#### Graduate School

Flandernstrasse 101

73732 Esslingen

GERMANY

Phone +49(0)711 397-44 66

[mengddm@hs-esslingen.de](mailto:mengddm@hs-esslingen.de)

#### Admission Requirements

- | Bachelor of Automotive Engineering, Mechanical Engineering or equivalent
  - | English language test
- Please see our website for details

#### Application deadline

31 March

APPLY NOW!

[WWW.HS-ESSLINGEN.DE/GS](http://WWW.HS-ESSLINGEN.DE/GS)  
[WWW.GRADUATE-SCHOOL.DE](http://WWW.GRADUATE-SCHOOL.DE)



# DESIGN AND DEVELOPMENT IN AUTOMOTIVE AND MECHANICAL ENGINEERING

Master of Engineering

**Hochschule Esslingen**  
University of Applied Sciences



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## DESIGN AND DEVELOPMENT IN AUTOMOTIVE AND MECHANICAL ENGINEERING

**Build your networked knowledge in engineering design and development**

The Design and Development in Automotive and Mechanical Engineering program (DDM) is focused on the design and development of complex engineering systems.

It aims to prepare students for a challenging job in the core areas of design and development within the globalized mechanical engineering and automotive engineering industry. Strong focus is placed on the ability to communicate confidently in the international environment of modern industry.

Graduates of the DDM program usually aim to work in the following areas: the automotive industry and its component suppliers; manufacturer of machines and equipment, the mechanical engineering industry; the process engineering industry; and engineering consultancy.

## STUDY IN THE HEART OF THE EUROPEAN AUTOMOTIVE INDUSTRY



As the university is located in the very heart of the automotive industry, students benefit greatly from the close links to the technological and industrial leaders situated in the area, such as **Bosch, Daimler, Audi, Festo, Porsche, Mahle Behr, and Trumpf**. These are especially important when it comes to master's thesis placement.

**Learn to work in an interdisciplinary and intercultural environment**

Some DDM students have the possibility to work on interdisciplinary projects commissioned by the industry. One example of this is the Bike2Go (Fahrrad2Go), which aimed to improve the availability of public transportation for cyclists. After winning the prestigious ÖPNV Innovation Prize, this innovative concept is now operating in the streets of Esslingen.

### MASTER OF ENGINEERING

- | Build your networked knowledge in engineering design and development
- | Study in the heart of the European automotive and mechanical engineering industry
- | Learn to work in an interdisciplinary and intercultural environment
- | Study in English - live in Germany

## MASTER OF ENGINEERING DESIGN AND DEVELOPMENT IN AUTOMOTIVE AND MECHANICAL ENGINEERING

Master's Thesis

3<sup>rd</sup>  
SEM

Soft Skills for Engineers

**Design for Manufacturing**  
Production-Oriented Product Design/  
Product Life Cycle Management  
with Lab

**Design and Development 2**  
Advanced CAD, Design of Experiments

**Vibrations and Acoustics 2**  
Vibration, NVH in Automotive  
Systems/Lab Computer-Aided  
Vibration Analysis (CAT)

**Advanced Materials Technology**  
Advanced Engineering Materials, Surface  
Technology, Composite Materials

**Project Work**

**Advanced Strength of Materials**  
Lightweight Design, Advanced Finite  
Element Method

**Vibration and Acoustics 1**  
Vibration and Acoustics Measurement/Lab

**Dynamics**  
Multi Body Systems, Simulation of  
Multi Body-Systems

**Design and Development 1**  
Design Methodology, Ecologic and  
Economic Design, Reliability

**Integrity of Structures**  
Integrity of Structures, Failure Analysis

**Numerical Methods in CAE**  
Numerical Mathematics, CAE Methods  
and Algorithms

1<sup>st</sup>  
SEM

2<sup>nd</sup>  
SEM