

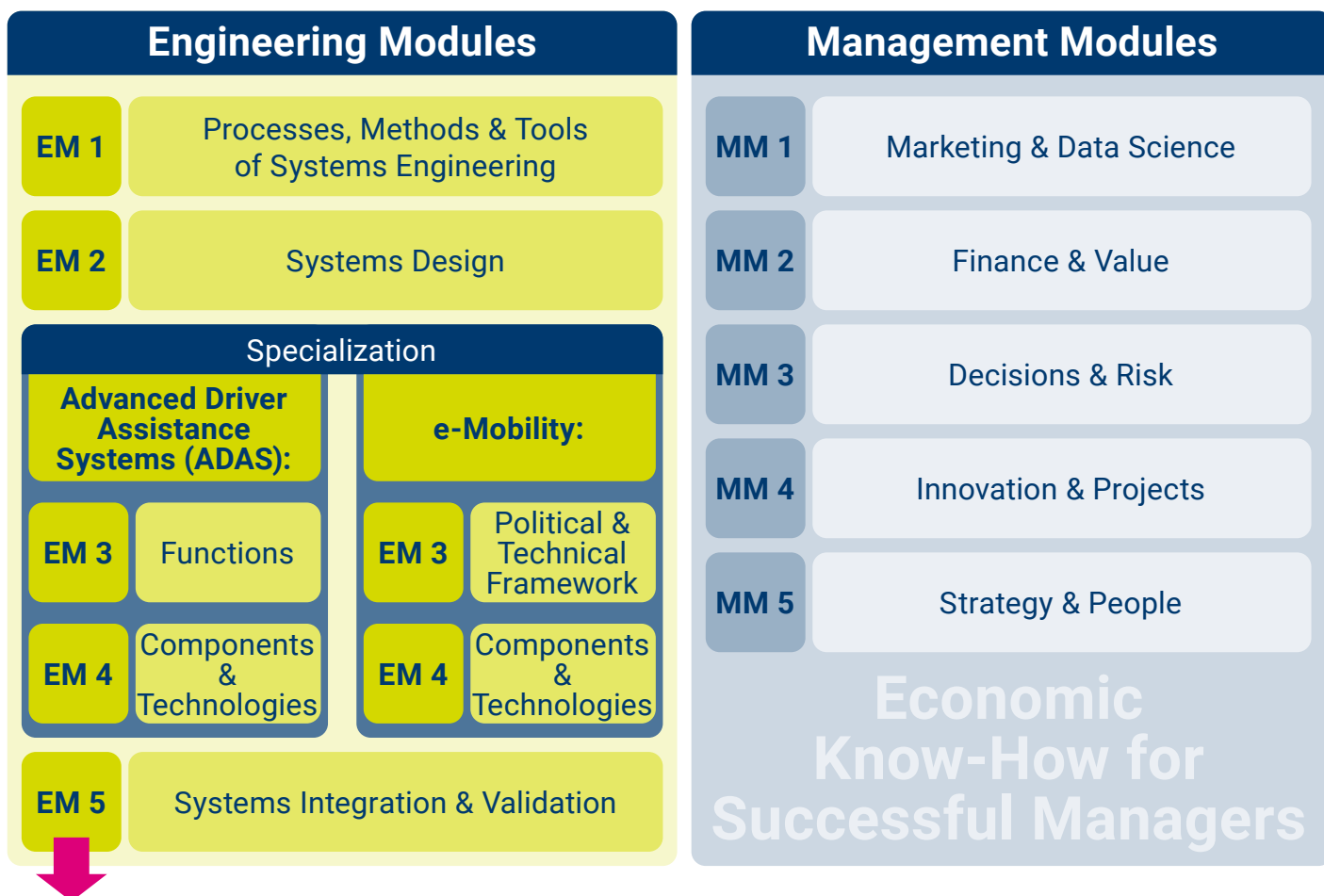
Executive Master's Program



Mobility Systems Engineering & Management

E-Mobility, Autonomous Driving & Systems Engineering





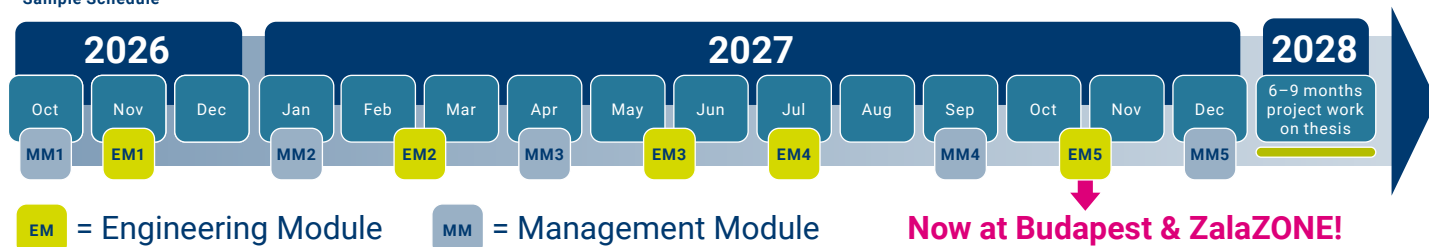
Now at BME and ZalaZONE!

BME combines leading expertise in automated mobility with real test vehicles, V2X systems and advanced validation methods. At ZalaZONE, participants apply this knowledge by testing automated driving functions and critical traffic scenarios under controlled, real-world conditions.

Work-integrated structure

- 5 Engineering Modules + 5 Management Modules
- Modules = 2 weeks blocks
- Master's Thesis as **Company Innovation Project**
- Flexible duration: **Starting from 15 months**
- Teaching language: **English**
- Tuition fee: **€36,000**

Sample Schedule



about this **Executive Master's Program** at www.hectorschool.kit.edu



From System Design to the Test Track

The Systems Integration & Validation module takes MSEM participants to BME in Budapest, combining academic expertise with hands-on experience in connected and automated mobility.

Theoretical Foundation at BME

BME's Automated Drive Lab brings together vehicle engineering, control systems and computer science. Key topics include:

- Cooperative perception, sensor fusion and V2X communication
- Vehicle dynamics and automated control
- Functional safety, cybersecurity and system validation

Participants examine how components interact within the overall vehicle system, identify critical interfaces and develop suitable integration and testing strategies.

Hands-on Experience at ZalaZONE

At the ZalaZONE Automotive Proving Ground, theory meets real-world testing.

Its infrastructure includes test vehicles, V2X systems, digital track models, HD maps, LiDAR data and Scenario-in-the-Loop methods.

Participants gain insight into how:

- Virtual models are connected with real vehicles
- Automated functions are tested in controlled traffic scenarios
- Safety and cybersecurity requirements are validated together

The Unique Advantage

The defining strength is the combination of BME's academic expertise, industry-oriented development and testing on a real automotive proving ground.

Exclusive to the Budapest and ZalaZONE module, this experience connects system architecture, simulation and integration with validation on an actual vehicle — providing methods participants can transfer directly to innovation projects in their organizations.



HECTOR SCHOOL

Technology Business School of the KIT

HECTOR School of Engineering & Management
is the **Technology Business School** of the
Karlsruhe Institute of Technology (KIT).

This means

- **Academic Quality.**
200 years of **KIT** engineering excellence.
- **Industry Relevance.**
20 years of **HECTOR School**
life long learning expertise.

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- **Certificate Courses:**
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- **Advanced Studies:**
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Schedule an individual Consultation:



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