

Embedded Systems (ES)

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Where innovation starts

What is an Embedded System?



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Embedded Systems MSc program

Integration approach in system design

Functional correctness (verified by mathematical means)

Resource-boundedness, dependability

MSc program on ES considers embedded systems design

from high-level architecture

via specification and verification of requirements

to low-level implementation using dedicated hardware.

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Special features

Excellent collaboration under 4TU umbrella with

Delft University of Technology

University of Twente

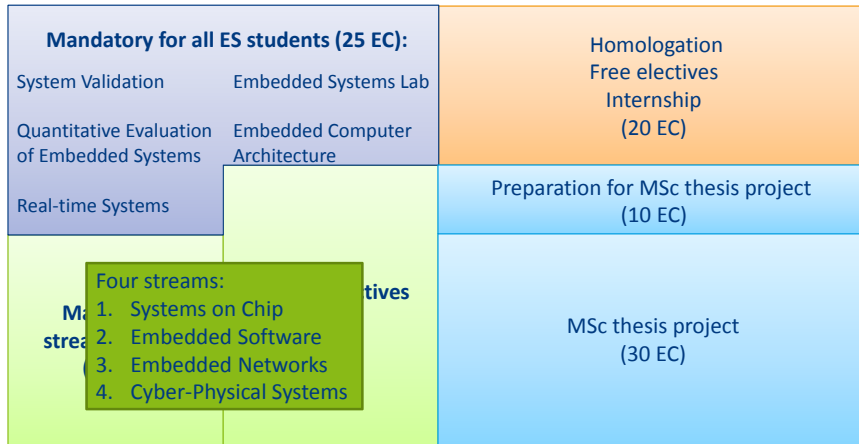
Two variants:

Local variant

International variant (in context of EIT Digital)

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Structure of the local program



Systems on Chip...

... zooms in on the trend to implement complete systems on a single chip

Mandatory stream courses:

Systems on Silicon

Multiprocessors

Hardware Verification



Embedded Software...

... zooms in on reliable software development for embedded systems

Mandatory stream courses:

Automated Reasoning

Parallelization, Compilers and Platforms

Generic Language Technology



Embedded Networking...

... zooms in on the networking aspect of embedded systems

Mandatory stream courses:

Architecture of Distributed Systems

Networked Embedded Systems

Internet of Things



Cyber-Physical Systems...

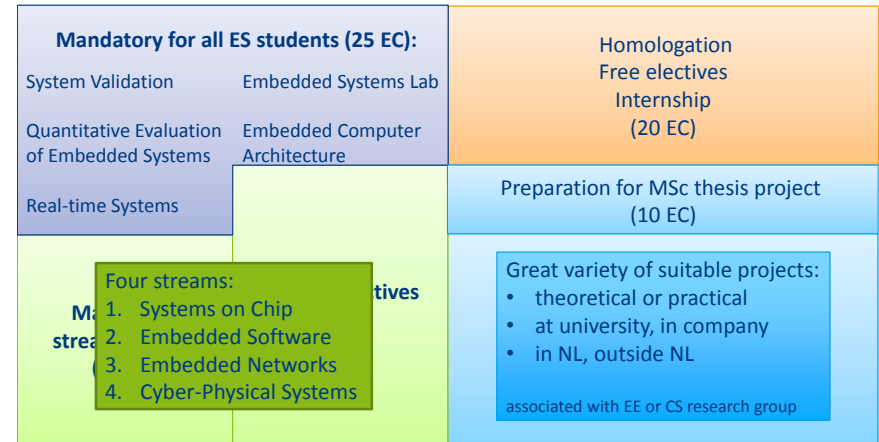
... zooms in on physical systems controlled by embedded computer system

Mandatory stream courses:

- Embedded Control Systems
- Embedded Signal Processing Systems
- Internet of Things



Structure of the local program



After graduation

Embedded Systems graduates (easily) find jobs as

- (Embedded) Software Engineer
- (Embedded) Hardware Engineer
- PDEng/PhD candidate
- ... or start their own company

Brainport region: one of Europe's most innovative regions

