

## Course

# ESY - Embedded Systems in Media Technology

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Version: 2 | Last Change: 29.09.2019 20:07 | Draft: 0 | Status: vom verantwortlichen Dozent freigegeben

### ^ General information

<b>Long name</b>	Embedded Systems in Media Technology
<b>Approving CModule</b>	<a href="#">ESY MaMT</a>
<b>Responsible</b>	Prof. Dr.-Ing. Dirk Poggemann Professor Fakultät IME
<b>Level</b>	Master
<b>Semester in the year</b>	winter semester
<b>Duration</b>	Semester
<b>Hours in self-study</b>	78
<b>ECTS</b>	5
<b>Professors</b>	Prof. Dr.-Ing. Dirk Poggemann Professor Fakultät IME
<b>Requirements</b>	none
<b>Language</b>	German, English if necessary
<b>Separate final exam</b>	Yes

## Final exam

### Details

Students implement media technology algorithms in an Embedded System and document their results. The Implementation should be developed and tested as introduced in the lecture and the lab exercises.

### Minimum standard

Working Algorithm

Exam Type

Students implement media technology algorithms in an Embedded System and document their results. The Implementation should be developed and tested as introduced in the lecture and the lab exercises.

## ^ Lecture

### Learning goals

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#### Knowledge

- Microprocessors
- FPGAs
- Hardware Description Languages
- Designprocess
- Test and Debug
- Control of CCD- and CMOS-Image-Sensors
- Image Processing Algorithms

### Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Tutorial (voluntary)	0

### Separate exam

none

## ^ Practical training

### Learning goals

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#### Skills

exercises with FPGA-Board and CMOS-Image-Sensor

### Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	2
Tutorial (voluntary)	0

## Separate exam

### Exam Type

working on practical scenarion (e.g. in a lab)

### Details

Reports about lab exercises

### Minimum standard

Reports for all lab excercises must be delivered in correct form with correct results