

Course

AT - Antenna Technology

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^ General information

Long name	Antenna Technology
Approving CModule	AT_BaET , AT_BaTIN
Responsible	Prof. Dr. Rainer Kronberger Professor Fakultät IME
Level	Bachelor
Semester in the year	winter semester
Duration	Semester
Hours in self-study	150
ECTS	5
Professors	Prof. Dr. Rainer Kronberger Professor Fakultät IME
Requirements	GE1, GE2, GE3, EL1, GHF, Mathematics
Language	German
Separate final exam	Yes

Final exam

Details

oral

Minimum standard

Minimum Score 4.0

Exam Type

oral

^ Lecture

Learning goals

Knowledge

- electromagnetic fields and waves, Maxwell Equations
 - wave propagation, polarization, reflection and transmission of waves on materials and boundaries
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- pattern, directivity, gain, impedance, efficiency
 - linear antennas, monopole, dipole, arrays, Yagi-Uda antenna, parabolic antenna
 - mobile antennas and terminal antennas
 - antenna measurements, nearfield, farfield,
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Skills

understand electromagnetic waves

Ability to use simulation tools

Learn measurement methods and methodologies

Understand the functional principle of antennas

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	1
Tutorial (voluntary)	0

Separate exam

none

^ Project

Learning goals

Skills

Understand measurements at higher frequencies

Learn how to use simulation tools

Learn how to handle RF measurement equipment

Learn how to perform antenna measurements

Perform antenna simulations

Write scientific reports

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Project	0
Tutorial (voluntary)	0

Separate exam

Exam Type

working on projects assignment with your team e.g. in a lab)

Details

Development of an antenna

Minimum standard

4.0