

Module Handbook (<https://modhb.uni-kl.de/>)

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Module EIT-FUN-401-M-4

Radio Frequency Technology (M, 4.0 LP)

Module Identification

Module Number	Module Name	CP (Effort)
EIT-FUN-401-M-4	<i>Radio Frequency Technology</i>	4.0 CP (120 h)

Basedata

CP, Effort	4.0 CP = 120 h
Position of the semester	1 Sem. in WiSe
Level	[4] Bachelor (Specialization)
Language	[DE] German
Module Manager	Schotten, Hans D., Prof. Dr.-Ing. (PROF DEPT: EIT) (/staff/347/)
Lecturers	Schotten, Hans D., Prof. Dr.-Ing. (PROF DEPT: EIT) (/staff/347/)
Area of study	[EIT-FUN] Wireless Communication and Navigation
Reference course of study	[EIT-82.781-SG#2019] B.Sc. Electrical and Computer Engineering [2019] (/mhb/FB-EIT/cos-523/)
Lifecycle-State	[NORM] Active

Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
2V+1U	EIT-FUN-401-K-4 (/mhb/courses/EIT-FUN-401-K-4/)	P	-	PL1	4.0	WiSe

- About [EIT-FUN-401-K-4]: Title: "Radio Frequency Technology"; Presence-Time: 42 h; Self-Study: 78 h

Examination achievement PL1

- Form of examination: **written exam (Klausur) (90 Min.)**
- Examination Frequency: each semester

Evaluation of grades

The grade of the module examination is also the module grade.

Contents

From [EIT-FUN-401-K-4] Radio Frequency Technology (/mhb/courses/EIT-FUN-401-K-4/):

- Transformation mit konzentrierten Elementen
- Inversions- und Smithdiagramm
- Wellen im freien Raum
- Polarisierungseffekte
- Wellen auf Zweileitersystemen
- Hohlleiterwellen
- fehlangepasste Wellenleiter
- Impedanztransformation
- wellenmäßige Beschreibung von n-Toren mit der Streumatrix

Competencies / intended learning achievements

- Kenntnisse grundsätzlicher Vorgehensweisen der hochfrequenten Signalverarbeitung und -übertragung

Requirements for attendance (informal)

Modules:

- [EIT-EOT-601-M-3] Theoretical Electrical Engineering I (M, 5.0 LP) (/mhb/modules/EIT-EOT-601-M-3/)
- [EIT-EOT-602-M-4] Theoretical Electrical Engineering II (M, 5.0 LP) (/mhb/modules/EIT-EOT-602-M-4/)

Requirements for attendance (formal)

None

References to Module / Module Number [EIT-FUN-401-M-4]

Course of Study	Section	Choice/Obligation
[EIT-82.781-SG#2019] B.Sc. Electrical and Computer Engineering [2019] (/mhb/FB-EIT/cos-523/)	Major-Specific Advanced Subjects	[P] Compulsory
[EIT-88.781-SG#2010] M.Sc. Electrical and Computer Engineering [2010] (/mhb/FB-EIT/cos-556/)	Elective Subjects	[W] Elective Module
[EIT-88.A44-SG#2018] M.Sc. Media and Communication Technology [2018] (/mhb/FB-EIT/cos-568/)	Technical Elective Subjects	[W] Elective Module
[EIT-82.?-SG#2021] B.Sc. Electrical and Computer Engineering [2021] (/mhb/FB-EIT/cos-685/)	Major-Specific Advanced Subjects	[P] Compulsory
[EIT-88.?-SG#2021] M.Sc. Electrical and Computer Engineering [2021] (/mhb/FB-EIT/cos-686/)	Technical Elective Modules	[W] Elective Module
[EIT-82.?-SG#2021] B.Sc. Media and Communication Technology [2021] (/mhb/FB-EIT/cos-681/)	Technical Elective Modules	[W] Elective Module
[EIT-88.?-SG#2021] M.Sc. Media and Communication Technology [2021] (/mhb/FB-EIT/cos-688/)	Technical Elective Modules	[W] Elective Module