

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

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## Module EIT-EES-862-M-7

Power System Protection (M, 3.0 LP)

### Module Identification

Module Number	Module Name	CP (Effort)
EIT-EES-862-M-7	Power System Protection	3.0 CP (90 h)

### Basedata

CP, Effort	3.0 CP = 90 h
Position of the semester	1 Sem. in WiSe
Level	[7] Master (Advanced)
Language	[EN] English
Module Manager	Loitz, Sönke, Dr.-Ing. (EXT   DEPT: EIT) (/staff/620/)
Lecturers	Loitz, Sönke, Dr.-Ing. (EXT   DEPT: EIT) (/staff/620/)
Area of study	[EIT-EES] Energy Systems and Energy Management
Lifecycle-State	[NORM] Active

### Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
2V	EIT-EES-862-K-7 (/mhb/courses/EIT-EES-862-K-7/)	P	-	PL1	3.0	WiSe

- About [EIT-EES-862-K-7]: Title: "Power System Protection"; Presence-Time: 28 h; Self-Study: 62 h

### Examination achievement PL1

- Form of examination: **oral examination (30 Min.)**
- Examination Frequency: each semester

### Evaluation of grades

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

## Contents

From [EIT-EES-862-K-7] Power System Protection (/mhb/courses/EIT-EES-862-K-7/):

- Fundamentals of Power System Protection
- Operation of Electrical Installations
- Instrument Transformer
- Earth Fault Detection
- Line and Feeder Protection
- Frequency Protection
- Generator and Unit Protection
- Protection of Network Components
- Development of Power System Protection
- Testing of Protection Relays

## Competencies / intended learning achievements

After completing this module you can...

- ... list and explain the function of protection schemes in power systems.
- ... list and explain the most important protection functions as relays.
- ... list and apply planning principles of power system protection to given examples.
- ... summarize the state-of-the art and upcoming development trends in this area.

## Requirements for attendance (informal)

### Modules:

- [EIT-ENV-208-M-4] Electrical Energy Systems I (M, 4.0 LP) (/mhb/modules/EIT-ENV-208-M-4/)
- [EIT-ENV-209-M-4] Electrical Energy Systems II (M, 4.0 LP) (/mhb/modules/EIT-ENV-209-M-4/)

### Requirements for attendance (formal)

None

## References to Module / Module Number [EIT-EES-862-M-7]

Course of Study	Section	Choice/Obligation
[EIT-82.781-SG#2019] B.Sc. Electrical and Computer Engineering [2019] (/mhb/FB-EIT/cos-523/)	Elective Subjects	[W] Elective Module
[EIT-88.781-SG#2010] M.Sc. Electrical and Computer Engineering [2010] (/mhb/FB-EIT/cos-556/)	Elective Subjects	[W] Elective Module
[EIT-82.?-SG#2021] B.Sc. Electrical and Computer Engineering [2021] (/mhb/FB-EIT/cos-685/)	Technical Elective Modules	[W] Elective Module
[EIT-88.?-SG#2021] M.Sc. Electrical and Computer Engineering [2021] (/mhb/FB-EIT/cos-686/)	Technical Elective Modules	[W] Elective Module