Module Name	Protection and Control Technology in Electrical Power Supply Systems
Module Number	EuI-ET-E-SeEVS, EuI-RES-E-SeEVS
Responsible Lecturer	Prof. Dr.-Ing. habil. Martin Wolter martin.wolter@tu-dresden.de
Qualification Objectives	After completing the module, students are able to assess the suitability and accuracy of criteria for detecting fault conditions in power supply systems. They can independently design protection systems and determine the necessary setting parameters. Furthermore, students are capable of evaluating the interfaces between the process and the subsystems of secondary technology, assessing various communication topologies, and are familiar with the communication protocols used in switchgear.
Contents	The module covers the structure and functionality of protection and control technology in electrical power systems, as well as essential criteria and algorithms of selective protection technology.
Teaching and Learning Forms	3 hours per week of lectures, 2 hours per week of exercises, 1 hour per week of practical lab courses, and self-study.
Prerequisites for Participation	The competencies to be acquired in the modules "Grid Integration, System Behavior and Quality of Supply" as well as "Fundamentals of Electrical Power Supply Systems" are required.
Usability	The module is an elective module in the elective area "Competence Deepening" according to § 6 paragraph 3 SO and § 33 paragraph 4 PO of the main study program in the field of Electrical Power Engineering in the diploma program Electrical Engineering. Furthermore, it is an elective module in the elective area "Competence Deepening" according to § 6 paragraph 3 SO and § 33 paragraph 3 PO of the main study program in the diploma program Renewable Energy Systems. It creates the prerequisites for the modules that list this module in the field "Prerequisites for Participation."
Prerequisites for the Award of Credit Points	Credit points are awarded when the module examination is passed. The module examination consists of a written exam lasting 180 minutes and a complex assignment with a workload of 30 hours.
Credit Points and Grades	7 credit points can be earned through the module. The module grade is determined by the weighted average of the grades of the examination components. The written exam is weighted twice, and the complex assignment is weighted once.
Frequency of the Module	The module is offered every winter semester.
Workload	The total workload is 210 hours.
Duration of the Module	The module lasts one semester.