

Certification of electrical power systems - course description

General information	
Course name	Certification of electrical power systems
Course ID	06.2-WE-ELEKTP-CofEPS-Er
Faculty	Faculty of Computer Science, Electrical Engineering and Automatics
Field of study	WIEiA - oferta ERASMUS / Electrical Engineering
Education profile	-
Level of studies	First-cycle Erasmus programme
Beginning semester	winter term 2018/2019

Course information	
Semester	4
ECTS credits to win	3
Course type	obligatory
Teaching language	english
Author of syllabus	<ul style="list-style-type: none">dr inż. Piotr Leżyńskiprof. dr hab. inż. Robert Smoleński

Classes forms					
The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Lecture	30	2	-	-	Exam

Aim of the course

The aim of the subject is:

- Transfer of knowledge and familiarize students with the concepts and basic amounts of the reliability of devices and power systems
- Familiarize students with the base of electrical equipment operation and maintenance
- Familiarize students with power system management
- Awareness of the role of certification in ensuring the quality and safety of operation of power systems

Prerequisites

Materials engineering, Fundamentals of electrical power engineering

Scope

Introduction to the operation of technical equipment and systems

Management of equipment and technical systems operation

Elements of technical systems, the reliability of technical systems

Occupational Health and Safety at work in electric power systems

Operation of the power system and its devices

Introduction to technical diagnostics

Operating and final measurements of technical equipment

Assessing the CE conformity certificate for equipment and installations by EU directives: LVD, EMC

Safety of electrical devices

Electromagnetic interaction of electronic devices with the environment

The technology of repairs, and regeneration of technical infrastructure

Teaching methods

Lecture

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
The students know the concepts and basic amounts of the reliability of devices and power systems		<ul style="list-style-type: none">• an exam - oral, descriptive, test and other	<ul style="list-style-type: none">• Lecture

Outcome description	Outcome symbols	Methods of verification	The class form
Students know management, operation, and maintenance of power system		• an exam - oral, descriptive, test and other	• Lecture
The student is aware of the role of certification in ensuring the quality and safety of operation of power systems		• an exam - oral, descriptive, test and other	• Lecture

Assignment conditions

Oobtaining a positive grade in written or oral exam.

Recommended reading

1. Miguel A. Sanz-Bobi, Use, Operation and Maintenance of Renewable Energy Systems, Experiences and Future Approaches, Springer, 2014
2. R. Manzini, Maintenance for Industrial Systems, Springer, 2009
3. Tim Williams and Keith Armstrong, EMC for Systems and Installations, Elsevier, 1999

Further reading

1. J. Kazimierzczak, Eksploatacja systemów technicznych, Wyd. Politechniki Śląskiej, Gliwice, 2000

Notes

Modified by dr hab. inż. Radosław Kłosiński, prof. UZ (last modification: 05-04-2018 18:41)

Generated automatically from SylabUZ computer system