

Title Selected Problems with Evaluation of Power Quality	Code 10103252410103201478
Field Electrotecnics	Year / Semester 2 / 4
Specialty Measuring Systems in Industry and Biomedical Engineering	Course core
Hours Lectures: 9 Classes: - Laboratory: - Projects / seminars: 9	Number of credits 0
Language polish	

Lecturer:

dr inż. Przemysław Otomański
Instytut Elektrotechniki i Elektroniki Przemysłowej
60-965 Poznań, ul. Piotrowo 3a
tel; +48 61 665 2388
e-mail: Przemyslaw.Otomanski@put.poznan.pl

Faculty:

Faculty of Electrical Engineering
ul. Piotrowo 3A
60-965 Poznań
tel. (061) 665-2539, fax. (061) 665-2548
e-mail: office_deef@put.poznan.pl

Status of the course in the study program:

Obligatory course, Faculty of Electrical Engineering, field Electrotechnics, speciality Measuring Systems in Industry and Biomedical Engineering.

Assumptions and objectives of the course:

The knowledge of selected problems with evaluation of power quality in electrical networks

Contents of the course (course description):

Legal and standard status of evaluation of power quality in electrical networks. Measurements of deformed signals frequency. Measurements of the harmonics and interharmonics of periodical and non-periodical signals. Measurement of distortion factor. Measures of voltage fluctuations. Influence of changes in the active and reactive powers on voltage variation. Influence of changes in the spectrum of currents on voltage variation. Light flickering to be caused by voltage variation. Modeling of the flickermeter signal line. Influence of voltage variation on receiver status. Propagation of voltage variation in electrical network. Voltage variation in three-phase networks. Discriminator of voltage fluctuations. Examples of noxious loads. Identifications of noxious loads. Limitation of voltage variation. A review of devices to measurements of voltage variation.

Introductory courses and the required pre-knowledge:

Fundamentals of metrology and electrical engineering.

Courses form and teaching methods:

Lectures, laboratory exercises with elements of projects.

Form and terms of complete the course - requirements and assessment methods:

Test after lectures and laboratory course.

Basic Bibliography:

-

Additional Bibliography:

-