

Assessment and subject description

Óbuda University		Kandó Kálmán Faculty of Electrical Engineering		Institute of Power Systems	
Subject name and code: Energetics		KVKEN1ABNE KVVWENBABNE		Credits: 2	
Full-time, Spring/Fall Semester					
Course: Energetics					
Responsible:	Peter Kadar senior lecturer		Teaching staff:	Peter Kadar, Mark Karacsi	
Prerequisites:					
Contact hours per week: 2	Lecture: 2	Class discussion:	Lab hours: 1	Tutorial:	
Assessment and evaluation:	Semester mark				
Subject description					
<p><i>Aims:</i> In the frame of course “energetics” the students may get impression about the power engineering activity, specialized on the power system operation. Through the selected chapters of the power system control they get acquainted with the special expressions and verbs used in this sector.</p>					
<p><i>Topics to be covered:</i> After the presentation of the Hungarian power system, some basic highlights are shown as the power plant operations and the controls strategies. The micro- and smart grids are mentioned as well. The construction and operation of the wind turbines, although the integration of the renewable energy sources into the power system operation is discussed in detail. We introduce also the operation of the Phasor Measurement Unit and other GPS based application. The chapter of the deregulation shows the financial – legal – economical ambiance of all the actions related power. The audio records of the English spoken inter TSO dispatcher talks, the visualisation demonstration program and the load forecast application makes more viable the course.</p>					
Topics			Week	Lessons	
ENTSOE, Hungarian Power system			1.	2	
Wind I.			2.	2	
Wind II			3.	2	
Former student presentations / News and magazines / IEEE			4.	2	
Vocabulary assessment I. / Starwars			5.	2	
Student papers – Small renewables			6.	2	
Student papers – Dispatcher talks – ODSZ listen / Former student presentation			7.	2	
Small renewables – Vocabulary assessment II.			8.	2	
Solar Belt			9.	2	
Intelligent networks			10.	2	
CO2 emission			11.	2	
Microgrids			12.	2	
Exam presentation			13.	2	
Exam presentation			14.	2	

Assessment and evaluation

Requirements of the signature:

- Attendance at the classes (A) / and at the on-line presentations too
- Written assessments (W)
- Oral presentation (O)

Type of exam:

Semester mark

Evaluation of the exam:

25% A + 50%W + 25%O

Materials

- Materials in the Moodle
- Vocabulary specialized for the Power Engineering in electronic form
- Electronic newsletters