

STUDY UNIT DESCRIPTION

Faculty of Electrical Engineering

CODE	EPC2101
TITLE	Computer-aided Calculations of Electromechanical Systems
LEVEL	02 - Years 2, 3 in Modular Undergraduate Course
ECTS CREDITS	7,5
DEPARTMENT	Department of Electric Drive
DESCRIPTION	<p>Microsoft Word: basic information about the word processor, creation, editing of documents using different features.</p> <p>Microsoft Excel: organizing, formatting and calculating data with formulae using a spreadsheet system. Great attention is paid to calculation of electromechanical systems.</p> <p>MathCad: performing vector and matrix operations, using numeric functions, solving equations, finding roots of polynomials, 2D and 3D plots.</p> <p>Study-unit Aims:</p> <p>This unit gives necessary information and practical skills in widely-used programs for effective calculations in electromechanical systems.</p> <p>Learning Outcomes:</p> <p><u>1. Knowledge & Understanding:</u> By the end of the study-unit the student will be able to:</p> <ul style="list-style-type: none">- Explain advantages of widely-used programs for making calculations of electromechanical systems.- Understand ways in which calculations of electromechanical systems can be done.- Understand numerical methods of calculations. <p><u>2. Skills:</u></p> <p>By the end of the study-unit the student will be able to:</p> <ul style="list-style-type: none">- Perform calculations relating to electromechanical systems operation.- Use the correct program for solving the task of investigation. <p>Main Text/s and any supplementary readings:</p> <ul style="list-style-type: none">- J.Cox and J.Lambert, Step by step MS Word, Microsoft Press 2010.- G.Harvey, MS Excel for Dummies, Wiley Publishing, 2010.- B.Maxfield, Essential MathCad for Engineering, Science and Math, Academic Press, 2009.

**ADDITIONAL
NOTES**

Pre-requisite Study-units: EPC1201, EPC1202.

**STUDY-UNIT
TYPE**

Tutorial

**METHOD OF
ASSESSMENT**

Assessment Component/s
Practical

Resit Availability
No

Weighting
10%

Директор ННЦ міжнародного
співробітництва

М.В. Рогоза