



FORM Nº 19 – **COURSE SYLLABUS/ACTIVITY**

CONTENT OF STUDIES

ENERGY CONVERSION AND ELECTRICAL EQUIPMENT

<p><b>SUBJECT NAME/ACTIVITY</b> Electric Energy Conversion and Power Transformers</p>	<p><b>CODE</b> TEE00120</p>	<p><b>CONCEPTION ( )</b> ALTERATION: NAME ( ) CL ( ) TRANSLATION: (X)</p>
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DEPARTMENT/IMPLEMENTATION COORDINATION: ELECTRICAL ENGINEERING DEPARTMENT

COURSE LOAD: 60 HOURS      THEORETICAL: 60 HOURS      PRACTICAL: 0 HOURS      INTERNSHIP: 0 HOURS

PROGRAM CONTENT

MAGNETIC CIRCUITS: DC AND AC EXCITATION; MAGNETIC MATERIALS(NON-LINEAR CHARACTERISTICS); B x H CURVE; PERMANENT MAGNET; COUPLED MAGNETIC CIRCUITS; PRINCIPLES OF ELECTRO MECHANICS ENERGY CONVERSION. TRANSFORMERS: EQUIVALENT CIRCUIT OF REAL TRANSFORMER; IDEAL TRANSFORMER; PER UNIT SYSTEM; VOLTAGE REGULATION AND EFFICIENCY; AUTOTRANSFORMER; THREE-PHASE TRANSFORMERS; CONNECTIONS TYPES; SHORT CIRCUITS AND OPEN CIRCUITS EXPERIMENTS; PARAMETERS DETERMINATIONS; ONE-LINE DIAGRAMS;

BASIC BIBLIOGRAPHY:


1. "MÁQUINAS ELÉTRICAS: COM INTRODUÇÃO À ELETRÔNICA DE POTÊNCIA"; A. E. FITZGERALD; EDITORA: BOOKMAN;
2. BIM, E., 2009. MÁQUINAS ELÉTRICAS E ACIONAMENTO. 2ª EDIÇÃO, EDITORA ELSEVIER;
3. SEN, P.C., 1997. PRINCIPLE OF ELECTRIC MACHINES AND POWER ELECTRONICS. 2ND ED., JOHN WILEY & SONS;
4. "POWER SYSTEM ANALYSIS"; AUTOR: W. D. STEVENSON; EDITORA: MCGRAW-HILL, INC;
5. "POWER SYSTEM ANALYSIS AND DESIGN"; AUTOR: J. D. GLOVER; EDITORA: CENGAGE LEARNING;
6. "INTRODUÇÃO A SISTEMAS ELÉTRICO DE POTÊNCIA"; AUTOR: E. J. ROBBA; EDITORA: EDGARD BLUCHE.

COMPLEMENTARY BIBLIOGRAPHY:

1. "ENERGY CONVERSION : ELECTRIC MOTORS AND GENERATORS"; AUTOR: R. S. RAMSHAW; EDITORA: OXFORD UNIVERSITY PRESS, INCORPORATED;
2. SLEMON, G.R., 1966. MAGNETOELECTRIC DEVICES: TRANSDUCERS, TRANSFORMERS, AND MACHINES. 1ST ED., JOHN WILEY & SONS;
3. "TRANSFORMADORES"; AUTOR: A. MARTIGNONI; EDITORA: GLOBO;
4. "TRANSFORMADORES - TEORIAS E ENSAIOS"; AUTOR: J. POLICARPO G. DE ABREU; EDITORA: EDGARD BLUCHER.

  
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COURSE COORDINATOR

DATE 23 / 01 / 2018

  
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HEAD OF ELECTRICAL ENGINEERING DEPARTMENT

DATE 23 / 01 / 2018

November/2017

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