

CURRICULAR STRUCTURE

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

CONTENT OF STUDIES

ELECTRICAL ENERGY SYSTEMS

SUBJECT NAME/ACTIVITY	CODE	CONCEPTION ()
Fundamentals of Electrical Power Systems Operation	TEE00139	ALTERATION: NAME () CL () TRANSLATION: (X)

DEPARTMENT/IMPLEMENTATION COORDINATION: ELECTRICAL ENGINEERING DEPARTMENT

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

PROGRAM CONTENT

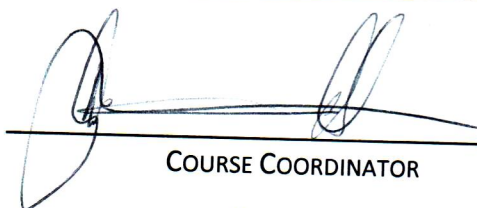
REAL TIME OPERATION FUNDAMENTALS; OPERATIONAL CENTRE, ADVANCED FUNCTIONS, STATE ESTIMATION, SHORT TERM LOAD PREVIEW, AUTOMATIC CONTROL OF ELECTRICAL GENERATIONS; PLANNING FUNDAMENTALS OF OPERATIONS OF POWER SYSTEMS; ECONOMIC OPERATIONS, SECURITY ANALYSIS, OPTIMAL POWER FLOW.

BASIC BIBLIOGRAPHY:

1. A. J. WOOD, B. F. WOLLENBERG, "POWER GENERATION, OPERATION, AND CONTROL", JOHN WILEY AND SONS, 2ND. EDITION, 1996;
2. A. ABUR, A.G. EXPÓSITO, "POWER SYSTEM STATE ESTIMATION: THEORY AND IMPLEMENTATION", CRC PRESS; 1ST. EDITION, 2004;
3. R. WERON, "MODELING AND FORECASTING ELECTRICITY LOADS AND PRICES: A STATISTICAL APPROACH", JOHN WILEY & SONS, 2006;
4. P. KUNDUR, "POWER SYSTEM STABILITY AND CONTROL", MCGRAW-HILL, 1994;
5. J. A. MOMOH, "ELECTRIC POWER SYSTEM APPLICATIONS OF OPTIMIZATION", CRC PRESS, 2ND. EDITION, 2008;
6. C. H. C. GUIMARÃES, "SISTEMAS ELÉTRICOS DE POTÊNCIA E SEUS PRINCIPAIS COMPONENTES", EDITORA CIÊNCIA MODERNA, IN PRESS.

COMPLEMENTARY BIBLIOGRAPHY:

1. J. J. GRAINGER, W. D. STEVENSON JR., "POWER SYSTEM ANALYSIS", MC-GRAW-HILL, 1994;
2. J. P. S. CATALÃO (ED.), "ELECTRIC POWER SYSTEMS: ADVANCED FORECASTING TECHNIQUES AND OPTIMAL GENERATION SCHEDULING", CRC PRESS, 2012;
3. S. REBENNACK, P. M. PARDALOS, M. V. F. PEREIRA, N. A. ILIADIS (EDS.), "HANDBOOK OF POWER SYSTEMS I", SPRINGER, 2010.

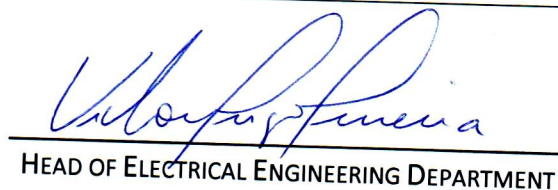


COURSE COORDINATOR

DATE 23 / 01 / 2018

November/2017

Daniel Henrique N. Dias
Coordenador do Curso de
Graduação em Eng^a Elétrica
Matr. SIAPE 1847851



HEAD OF ELECTRICAL ENGINEERING DEPARTMENT

DATE 23 / 01 / 2018

Prof. Vitor Hugo Ferreira, D.Sc.
Chefe do Depto. Eng. Elétrica UFF
Matr. SIAPE 1672218