COURSE TITLE	**TE142411: Electric Power Conditioning** Credits: 2 ELECTIVE COURSE
LEARNING OBJECTIVE	• Students can review the field of power quality. • Students can understand the characteristics, analyze, model and develop the power quality conditioning systems. • Students are able to understand and develop power electronic based power quality conditioning systems including filter passive, filter active, uninterruptible power supply, dynamic voltage restorer.
COMPETENCY	• Mahasiswa mampu menjelaskan ide dalam bentuk penulisan dan lisan. • Students are able to explain the field of power quality. • Students are able to indentify, analyze, model and develop systems relating with power quality conditioning. • Students are able to understand and develop power quality conditioning systems based on power electronic and existing standards. • Students are able to explain ideas in written and oral presentation.
SUBJECTS	• Overview of power quality, harmonic distortion, concept of power in a distorted condition, voltage sags, voltage outages, voltage interruptions, passive filter, active power filter, hybrid filter, dynamic voltage restorer, uninterruptible power supply
MAIN REFERENCES	• Math HJ Bollen, Understanding power quality problems, voltage sags and interrruptions, IEEE press series in Power Engineering, 2000. • Ned Mohan, Underland, Robbins. Power Electronics converters, applications, and design", John Wiley and Sons publishing Co, second edition.
OPTIONAL REFERENCES	• - MH. Rashid. Power Electronics, John Wiley and Son publishing Company, 2003.
PREREQUISITE	• Advance Power Electronics