Course Outcome (CO)
(Even Semester)

07 EE 62 02 Advanced Power System protection

CO1	Acquire knowledge in digital relays and function of protective systems
CO2	Acquire knowledge in mathematical background to protection algorithms
CO3	Acquire knowledge in transmission line relaying algorithms, power transformer algorithms and digital protection of buses
CO4	Understanding abount hardware Organization
CO5	Acquire knowledge in developments in new relaying principles
CO6	Acquire knowledge in travelling wave protection schemes,WAMS architecture, WAMS bases protection concepts.

07 EE 62 04 Power System Dynamics

CO1	Student should able to understand the modelling of synchronous machines
CO2	student should able to develop the synchronous machine model in dq0 transformation
CO3	Student should able to understand the analyse of small signal stability
CO4	Student able to compute the stability by R-K Method
CO5	student should able to understand the concept of voltage stability and voltage collapse
CO6	student should able to understand the concept of transient stability.

07 EE 62 06 Power System Operation and Control

CO1	Acquire knowledge in generation dispatching schemes for thermal power plants
CO2	Understand different types of hydro generation unit scheduling problem and their solution
CO3	Famaliarize with Unit Commitment and various approaches for unit commitment
CO4	Mathematical modeling of Load frequency control
CO5	Acquire knowledge in optimal dispatch of automatic generation control and reactive power control
CO6	Understand voltage control using compensation devices and various FACT devices

07 EE 62 08 Flexible AC Transmission Systems

CO1	Acquire knowledge in FACTS and preliminaries:
CO2	Explain the need for FACTS devices
CO3	Classify reactive power compensators in power system
CO4	Interpret series and shunt connected FACTS devices for power system applications
CO5	Understanding of UPFC and IPFC
CO6	Explain about the special purpose FACTS Controllers

07 EE 63 32 Distributed Generation and Smart Grid

CO1	To give the Student An Introdution to Smart grid
CO2	To give the Student Componenets and Performance Ananlysis of Smart grid
CO3	To give the Student to analysis tools for smart grid
CO4	To give the Studen to study about renewable energy resources
CO5	To give the Studen to Familiarize the implementation technology of Smart grid
CO6	To give the Studen about Computational tools for smart grid design

(Odd Semester)

07 EE 72 11 POWER QUALITY

CO1	Identify the sources and effects of power quality problems.
CO2	Apply Fourier concepts for harmonic analysis.
CO3	Explain the important aspects of power quality monitoring.
CO4	Examine power quality mitigation techniques.
CO5	Discuss power quality issues in grid connected renewable energy systems.

07 EE 72 23 AUTOMATION AND INSTRUMENTATION FOR POWER SYSTEMS

CO1	Identify the sensors/transducers suitable for industrial applications.
CO2	Design the signal conditioning circuits for industrial instrumentation and automation.
CO3	Analyze the concepts of data transmission and virtual instrumentation related to automation
CO4	Develop the logic for the process control applications using PLC programming
CO5	Describe the fundamental concepts of DCS and SCADA systems

07EE 62 01 System Dynamics

CO1	To study the analysis of systems using state space model
CO2	To understand the concept of stability
CO3	To familiarize the optimal control problem
CO4	To familiarize robust control systems

07EE 62 03 Computer Applications in Power System

CO1	Student should able to compute the bus admittance and impedence matrix.
CO2	student should able to Compute the load flow solution using different iterative methods like GS,NR and FDLF.
CO3	Student should able to understand and apply the Factorisatiom method.
CO4	Students will be able to compute symmetrical and unsymmetrical fault studies on the power system networks
CO5	Student should able to understand the concept of optimal power flow methods.
CO6	Student should able to understand the real time and computer control of power systems.

07EE 62 05 Analysis of Power Electronics Circuits

CO1	Choose appropriate power semiconductor device in converter circuits and develop their triggering circuits.
CO2	Analyze various types of power electronic converters and apply different switching techniques.
CO3	Analyze various types of power electronic converters and apply different switching techniques.
CO4	Acquire knowledge about pwm techniques used in inverter circuits.
CO5	Design and analyse modern power converter circuits
CO6	Design and analyse modern power converter circuits

07EE 62 17 HIGH VOLTAGE A C & D C TRANSMISSION

CO1	To give the students an in depth knowledge the basic concepts and recent trends in HVDC& AC transmission and working of HVDC & AC systems.
CO2	Acquire knowledge in Converter circuits, Analysis and Control
CO3	Acquire knowledge in Converter Inverter circuits for HVDC Transmission nand Converter disturbance
CO4	Acquire knowledge in Converter protection
CO5	Acquire knowledge in Harmonics and filters
CO6	Acquire knowledge in Ground Electrodes of HVDC systems and Parallel AC and DC Systems

THEJUS ENGINEERING COLLEGE * VELLARAKKAD * THRISSUR 680 584

Dr. K Vijayakumar
Principal
Thejus Engineering College
Vellarakkad P.O., Erumapett
Thrissur - 680 584