

COURSE CODE / SUBJECT CODE & NAME : C401/ EE8701 & HIGH VOLTAGE ENGINEERING  
YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C401.1	Understanding the various types of over voltages in power system and protection methods
2	C401.2	Understanding the significance of power system operation and control.
3	C401.3	Acquiring knowledge on real power-frequency interaction.
4	C401.4	Gaining the knowledge to Measure the over voltages.
5	C401.5	Applying the knowledge to test the power apparatus and insulation coordination

COURSE CODE / SUBJECT CODE & NAME : C402/ EE8702 & POWER SYSTEM OPERATION AND CONTROL  
YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C402.1	Understand the day-to-day operation of electric power system. Ability to analyze the control actions to be implemented on the system to meet the minute-to-minute variation of system demand.
2	C402.2	Understand the significance of power system operation and control.
3	C402.3	Acquire knowledge on real power-frequency interaction.
4	C402.4	Understand the reactive power-voltage interaction.
5	C402.5	Design SCADA and its application for real time operation.

COURSE CODE /SUBJECT CODE & NAME : C403/ EE8703 & RENEWABLE ENERGY SYSTEMS

YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C403.1	Analyze the various renewable energy resources and technologies and their applications.
2	C403.2	Understand about selection design and operation of wind turbine system.
3	C403.3	Understand about selection design and operation of solar PV system and solar thermal system for different types of application.
4	C403.4	Understand about biomass energy, geothermal energy and hydro power plant for different types of application.
5	C403.5	Understand about construction and working principle of tidal, wave and other energy sources.

COURSE CODE / SUBJECT CODE & NAME : C404/ OML751 TESTING OF MATERIALS

YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C404.1	Understanding the various testing materials & identify suitable testing techniques to inspect industrial components.
2	C404.2	Conducting and analyzing the various destructive testing of metallic specimen.
3	C404.3	Conducting and analyzing the various Non- destructive testing methods.
4	C404.4	Understanding the various materials characterization techniques.
5	C404.5	Acquiring the knowledge of thermal testing, thermo mechanical analysis and chemical testing.

COURSE CODE /SUBJECT CODE & NAME : C 405 / GE8074 & Human Rights  
YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C405.1	Students can understand the meaning, origin, development and classification of human rights.
2	C405.2	Students can understand the evolution concept of human rights.
3	C405.3	Students can understand the UN agencies monitor and complaint process.
4	C405.4	Student can know about the indian human rights.
5	C405.5	Students can understand the disadvantaged people's human rights and responsibilities of national and state human right commission, NGO's, media and educational institutions.

COURSE CODE /SUBJECT CODE & NAME : C 406 / EE8010 & Power System Transients  
YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C406.1	Study the concept of transient and the importance of transient
2	C406.2	Study the generation of switching transient
3	C406.3	Study the mechanism of lightning
4	C406.4	Study propagation ,reflection and refraction of travelling wave
5	C406.5	Study the voltage transients caused by faults

COURSE CODE / SUBJECT CODE & NAME : C407/ EE8711 & Power System Simulation Lab

YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C407.1	Ability to build and compute the modeling of transmission line parameters
2	C407.2	Analysis the different load flow problems and its solutions
3	C407.3	Understand the Transient and Stability of power system
4	C407.4	Analysis the load load frequency dynamics of single and two are system
5	C407.5	Understand the economic dispatch problems and its solutions

COURSE CODE /SUBJECT CODE & NAME : C 408/ EE8712 Renewable Energy Systems Laboratory

YEAR / SEM : IV / VII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C408.1	Ability to understand and analyze Renewable energy systems.
2	C408.2	Ability to train the students in Renewable Energy Sources and technologies.
3	C408.3	Ability to provide adequate inputs on a variety of issues in harnessing Renewable Energy.
4	C408.4	Ability to simulate the various Renewable energy sources.
5	C408.5	Ability to recognize current and possible future role of Renewable energy sources.

COURSE CODE /SUBJECT CODE & NAME : C 409 / EE8015 & ELECTRICAL ENERGY GENERATION UTILIZATION AND CONSERVATION

YEAR / SEM : IV / VIII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C409.1	Ability to Analysis the concept behind the renewable energy sources
2	C409.2	Define the concept of different lamp's illumination
3	C409.3	Determine the different methods of electric heating and electric welding
4	C409.4	Elaborate the knowledge in Solar radiation and Solar energy collectors
5	C409.5	Determine the concepts of Wind Energy and its utilization

COURSE CODE / SUBJECT CODE & NAME : C410/ EE8017& High Voltge Direct current Transmission

YEAR / SEM : IV / VIII

**Course Outcomes (COs)**

S.NO.	COURSE CODE	COURSE OUTCOMES (COs)
1	C410.1	Understand the principles and types of HVDC system
2	C410.2	Analyze and understand the concept of HVDC converters.
3	C410.3	Ability to acquire knowledge on DC link control.
4	C410.4	Understand the reactive power, harmonic control and filters
5	C410.5	Understand per unit system for DC system and analyse the power flow case studies.

COURSE CODE / SUBJECT CODE & NAME :C411 / EE8811 & Project Work

YEAR / SEM : IV / VIII

**Course Outcomes (COs)**

<b>S.NO.</b>	<b>COURSE CODE</b>	<b>COURSE OUTCOMES (COs)</b>
1	C411.1	Ability to solve a specific problem right from its identification and literature review till the successful solution of the same and take up any challenging practical problems and find solution by formulating proper methodology.
2	C411.2	On Completion of the project work students will be in a position to take up any challenging practical problems and find solution by formulating proper methodology using modern tools
3	C411.3	Ability to work in a group and Communicate effectively on complex engineering activities
4	C411.4	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development in ethically
5	C411.5	Demonstrate knowledge and understanding of the engineering and management principles, finances aspects and life long learning in the broadest context of technological change.