RAAJDHANI ENGINEERING COLLEGE
Course Outcome

Subject(Code): Digital Electronics (C211) **Year/Semester of Study: 2nd/4th**

COs	CO Statements
C211.1	Remember the various types of digital logic system also became familiar with the digital signal, positive and negative logic, Boolean algebra etc.
C211.2	Understand the working of logic families, characteristics of digital IC, interfacing CMOS, TTL and tristate logic.
C211.3	Apply mechanism, design and implement of the combinational logic circuit and their role in the digital system design.
C211.4	Analyze various types of sequential logic circuit and apply for real time digital systems.
C211.5	Know various types of components- ADC and DAC and also to evaluate the design of ADC and DAC.
C211.6	Use PLDs to implement the given logic problem and known about different types of memory elements.

Subject(Code): Electrical Mechanics-I(C212) **Year and Semester of Study: 2nd/4th**

COs	CO Statements
C212.1	Analyse the concept of magnetic circuit.
C212.2	Explain the concept of electromechanical conversion.
C212.3	Understand the construction, different windings, effect of armature reaction and its assessment of dc machines.
C212.4	Analyze D.C generator and motor characteristics, various losses and their efficacy.
C212.5	Analyse constructional details of transformers.
C212.6	Understand different types three phase transformer connection.

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Subject(Code): Engineering Economics (C213) Year/Semester of Study: 2nd/4th

COs	CO Statements
C213.1	Understand the different forms of market mechanisms.
C213.2	Understand the pattern of production and cost output relationship in different scale.
C213.3	Understand the difference between different market situations along with their profit maximization strategies.
C213.4	Understand the concept of interest and its equivalence to economy.
C213.5	Understand the different project estimation methods in business as well as social prospective along with depreciation and management of capital stock.
C213.6	Understand the role of financial institution & National income accounting in different sectors of the economy. Also able to understand the inflation and its remedies.

Subject(Code): Power Electronics(C214) Year/Semester of Study: 2nd/4th

COs	CO Statements
C214.1	Students will be able to correlate the different types of power semiconductor devices and their switching and applications in various electronic circuits.
C214.2	Students will be able to structure characteristics and performance parameters of controlled rectifiers with different types of load.
C214.3	Students will be able to acquire the knowledge on operation, switching techniques and basics topologies of DC-DC buck converter
C214.4	Students will be able to acquire the knowledge on operation, switching techniques and basics topologies of DC-DC boost converter
C214.5	Students will be able to acquire the knowledge on operation of single phase voltage source inverter and various configurations
C214.6	Students will be able to acquire the knowledge on operation of three phase voltage source inverter and various switching states.

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Subject(Code): Electrical and Electronics Measurement (C215) **Year/Semester of Study: 2nd/4th**

COs	CO Statements
C215.1	Analyse fundamentals of Measurement and their errors and classify various measuring instruments
C215.2	Analyze the bridges for the measurement of resistance, inductance and capacitance.
C215.3	Understand the galvanometers for the measurement of voltage and current.
C215.4	Understand the potentiometers to measure AC and DC values of unknown voltage.
C215.5	Analyse high values of current and voltage by using instrumentation transformer
C215.6	Understand principle of oscilloscope to measure frequency, phase angle and time delay.

Subject(Code): Digital Signal, Processing(C216) **Year/Semester of Study:2nd/4th**

COs	CO Statements
C216.1	Students will be able to know the basic elements of a Digital signal processing system and its advantages over analog signal processing. Students should familiar with the classification of the signals and its system
C216.2	Understand the details of discrete time signal and system described by difference equation method and its implementation Correlation of discrete time signal.
C216.3	Implement z-transform and its application of LTI system
C216.4	Analyze the DFT and its property, application.
C216.5	Evaluate the structure for FIR and IIR system and design of FIR filters
C216.6	Design of IIR filter from analog filter by impulse invariance and bilinear transformation method.

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Course Outcome

Subject(Code): Constitution of India(C217) **Year/Semester of Study: 2nd/4th**

COs	CO Statements
C217.1	Know the importance of Constitution and Government.
C217.2	Become Good Citizens and know their fundamental rights, duties and principles.
C217.3	Learn about the role of PM, President, Council of Ministers and Local Administration.
C217.4	Understand the importance of Election Commission.
C217.5	Understand the importance and role of Local Self Government and Emergency Provisions.
C217.6	Know about Secularism, Federalism, Democracy, Liberty, Freedom of Expression, Special Status of States etc.

Subject(Code):Digital Electronics Lab(C218) **Year/Semester of Study: 2nd/4th**

COs	CO Statements
C218.1	Acquire the basic practical knowledge of digital logic levels and application of knowledge to understand digital electronics circuits.
C218.2	Know about the design of combinational circuit and design of various gates using NAND and NOR gate.
C218.3	Design of multiplexer and de-multiplexer and design various digital logic gates.
C218.4	Understand about gate level minimization and various types of flip-flop using VHDL code.
C218.5	Know about various type of shift register using VHDL code.
C218.6	Design with Multiplexer and De-multiplexer using VHDL code.

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Subject(Code):Electrical Machines Lab(C219) **Year/Semester of Study: 2nd/4th**

COs	CO Statements
C219.1	Calculate efficiency and voltage regulation of a single phase transformer by open circuit and short circuit test.
C219.2	Identify and separate different losses of transformer.
C219.3	Understand application of VFD in speed control of 3-ph induction motor.
C219.4	Calculate efficiency and voltage regulation of a three phase induction motor by blocked rotor and break test.
C219.5	Understand the performance characteristics of grid connected induction generator.
C219.6	Know basics of single phase induction motor.

Subject(Code):Power Electronics Lab(C220) **Year/Semester of Study: 2nd/4th**

COs	CO Statements
C220.1	Students will be able to correlating the different types of power semiconductor devices and their characteristic.
C220.2	Students will be able to structuring different triggering circuits.
C220.3	Students will able to understand different controlled rectifier and their operations.
C220.4	Students will be able to Ability to acquire the knowledge on operation, switching techniques and basics topologies of DC-DC buck converter and boost converter
C220.5	Students will be able to Ability to acquire the knowledge on operation of single phase voltage source inverter and various configurations
C220.6	Students will be able to Ability to acquire the knowledge on operation of three phase voltage source inverter and various switching states