

SDGS COLLEGE HINDUPUR : DEPARTMENT OF ELECTRONICS

ELECTRONICS COURSE OUTCOME

S1 351-BASIC CIRCUIT THEORY-1

CO1 : To learn about the concepts of RMS value of sine wave, j-operator resistance, reactance and admittance concepts.

CO2 : To learn about the concepts of KCL and KVL and how to apply them to mesh analysis and node analysis on circuits consisting of resistors and sources.

CO3 : To understand Thevenin's theorem, Norton's theorem, Maximum power transfer theorem, Reciprocity theorem, Millman's theorem and their applications.

CO4 : To gain knowledge on RC, RL circuits, their frequency response and their applications as Low pass, High pass filters; differentiator and integrator.

CO5: To learn about the RLC parallel and series resonance circuits, Q factor and bandwidth selectivity concepts.

S2-351EDC

CO1 :To learn about formation of P-N Junction, Junction capacitance, effect of temperature on reverse current, VI characteristics, applications of diode and a few two terminal devices like Zener diode, Tunnel diode and Varactordiode.

CO2 :To learn about CB, CE CC configurations of BJT, h- parameters, load line analysis and biasing of BJT.

CO3: To understand the differences between JFET and BJT, V-I Characteristics of JFET, parameters of JFET, applications of FET and MOSFET. They would also learn about UJT characteristics, Applications. To learn about the SCR construction, two Transistor model of SCR, characteristics and applications of SCR.

CO4 :learn about structure and operation of LED, LDR, PV cell, Photodiode.

CO5 :Learn about rectifiers, filters, regulators and smps.

S3 351-DIGITAL ELECTRONICS

CO1 : To know about Various number systems and conversions among them.

They would also learn various codes and its conversions.

CO2 : To learn about De-Morgan Theorems, Boolean identities, Karnaugh maps and applications of them to calculate Sum of Products and Product of Sum of Boolean expressions.

CO3 :To learn about Multiplexers, de-multiplexers, half adder, full adder and various flip flops like RS, JK, D, T, Master-slave flip flops.

CO4 :To learn about Synchronous, Asynchronous counters, Up/Down counters, and working of 7490 decade counter.

CO5 :To learn about memories and its types. Pal and pla

S4 351-Analog and digital ic applications

CO1 : To learn about op amp 741 ,block diagram, parameters, adders, subtractor ,differentiator, integrator, logarithmic amplifier.

CO2 :To learn about voltage regulators, comparators, detectors, mv, signal generators, filters and ic 555its applications.

CO3 :To learn about code converters, design of mod n counter, binary up down counter, design of universal shift registers

CO4 :To learn about A/D and D/A converters

CO5 :To learn about interfacing of LED, digital clock, parallel to serial and serial to parallel registers and UART

S5 351 Mp 8085

CO1 : To learn architecture, pin configuration ALU, registers address and Zdata bus of up 8085

CO2 :To learn instruction set of 8085

CO3:To learn ALP programs like addition, subtraction, multiplication, division, largest, smallest, descending and ascending and ascending order.

CO4 :To learn interfacing devices like IO port, PPI, interrupt controller, DMA controller, keyboard controller, timer controller.

CO5 :To learn interfacing of 7 segment led, a/d converter, stepper motor to 8085 up.

S5 351 Electronic communication

CO1 :To learn block diagram of communication system and its types. they would also learn noise in communication system

CO2 :To learn AM modulation and demodulation

CO3 :To learn FM modulation and demodulation

CO4 :To learn communication channels for AM and FM broadcast ,AM transmitter, FM transmitter.

CO5 :To learn PAM,TDM,PWM, and PPM.

S6 351E-MC 8051 and its Applications

CO1 :To learn about architecture ,pin configuration, memory organisation,interrupts and timer counters of mc 8051

CO2 :To learn about instruction set of mc 8051

CO3 :To learn about addition, subtraction ,multiplication, division,largest, smallest,ascending and descending order ALP programmes.

CO4 :To learn about interfacing of 8255,7 segment led, key board,lcd, a/d converter to measure temperature

CO5 :Interfacing of stepper motor, a/d and d/a converter and serial communication

S6 352-VLSI DESIGN

CO1 :To learn about definition ,advantages of ic,mos types, cmos fabrication methods

CO2 :To learn about NMOS and CMOS inverter,VLSI design flow, design entry examples of NMOS,PMOS and CMOS.

CO3 :Basic logic gate, CMOS logic ,complex logic gate CMOS NAND and nor gate, compound gates in cmos

CO4 :VHDL and universal verilog, hdl language operators and data types.

CO5 :To learn data flow description and HDL programmes-basic and combinational logic gates.

S6-353-Data communication

CO1 :To learn data communication ,its components, types of networks

CO2 :To learn Network topologies

CO3 :To learn Transmission media's

CO4 :To learn Data transmission like d/d conversion ,a/d,d/a and a/a transmission. Transmission modes.

CO5 :To learn FDM,TDM,WDM and modems.

Project

CO1 :The project is to motivate the student to work in latest technologies ,help the students to develop ability to apply theoretical and practical tools to solve real life problems related to industry,academic institutions and research laboratories.