

COURSE CODE	COURSE NAME	CO	CO STATEMENT
C410	Cellular Mobile Communication	C410.1	Explain the fundamentals of cellular radio system design and its basic elements.
		C410.2	Analyse the concepts of different co-channel, non-co-channel interference and cellular coverage on signal & traffic of a designed system.
		C410.3	Identify the various types of antenna system design suitable for mobile communications.
		C410.4	Distinguish the number of radio channels, channel assignment and frequency management used in mobile communications.
		C410.5	Analyse the different hand off & cell splitting techniques and dropped call rate at cell site area.
		C410.6	Summarize the different types of second generation system architectures such as GSM, TDMA and CDMA for mobile communication systems.
C411	Electronic Measurements and Instrumentation	C411.1	Acquire knowledge about the concept and type of measuring instruments such as voltmeter, ammeter and ohmmeter used based on the requirements.
		C411.2	List different type of signal generators and wave analyzers are used for signal analysis at various environments
		C411.3	Analysis of signals using lissajous patterns, measurement frequency in various CRO's for different applications
		C411.4	Examine the AC and DC bridges for the measurement of resistance, unknown capacitance and Inductance

		C411.5	Design different types of active and passive transducers, thermocouples for various applications.
		C411.6	Measure various physical parameters such as humidity, moisture using thermistor and sensistors.
C412	Satellite Communication	C412.1	Understand the fundamentals of satellite communications and its evolution.
		C412.2	Classify the Orbital types, parameters and discuss various types of launch vehicles
		C412.3	Identify various Satellite subsystems such as AOCS, TTC &M, Power Systems, and Satellite Antennas.
		C412.4	Categorize different multiple access methods, calculate satellite link power budget and its constituent parameters.
		C412.5	Summarize the requirements of earth station, low earth orbit and geo stationary satellite system.
		C412.6	Discuss the satellite Navigation, Triangulation of GPS and differential GPS.
C413	Embedded systems	C413.1	Interpret different characteristic, quality attributes, classification, applications and components of the embedded systems.
		C413.2	Outline the electronic components for communication, timers and also list the steps for PCB design and VLSI circuit design.
		C413.3	Illustrate the embedded firmware design approaches, tools, device drivers and concept of embedded C.
		C413.4	Explain the operating system functions and the methods adopted for embedded system or real time operating systems.
		C413.5	Relate the hardware-software co-design with issues, models, trade Offs and integration.
		C413.6	Outline the embedded system development tools like assemblers, compilers, simulators,

			emulators, debuggers and tools for testing and porting to target.
C414	Wireless Sensors and Networks	C414.1	Illustrate the wireless sensor and network definitions, advantages, constraints, challenges and sensor node architecture with applications.
		C414.2	Outline the transceiver design considerations and various associated network technologies.
		C414.3	Inspect the design issues and goals of various MAC protocols of wireless sensor and networks.
		C414.4	Inference various network layer routing protocols of wireless sensor and networks with various design issues considerations.
		C414.5	Examine the design issues and goals of transport layer protocols for wireless sensor and network.
		C414.6	Summarize the network security requirements, attacks, issues, challenges and sensor network platforms and tools with various applications of wireless sensor and networks.
C415	System on Chip	C415.1	Understand the SoC architecture and SoC design approach
		C415.2	Design of processor architectures like micro architecture, VLIW and super scalar architectures
		C415.3	Analyze performance of memory units like cache memory and memory requirements for SoC design
		C415.4	Design of Interconnect bus architectures in SoC design
		C415.5	Understand the design and analysis of reconfigurable interconnect devices for processor design in SoC.
		C415.6	Design of SoC for specific application like AES and JPEG compression