

Department of Electronics Engineering

Semester - VIII

Unique Course Number: EXC801 Course Name: CMOS VLSI design

Unique CO Number	Course Outcome (CO) Statement
EXC8721	Recognize tradeoffs involved in analog VLSI Circuits
EXC8722	Analyze basic building blocks of CMOS analog VLSI circuits
EXC8723	Evaluate MOSFET based single stage and differential amplifiers and operational amplifiers
EXC8724	Evaluate mixed signal circuits and describe layout techniques for analog circuits

Unique Course Number: EXC802 Course Name: Advanced Networking Technology

Unique CO Number	Course Outcome (CO) Statement
EXC8521	To study the performance of emerging wireless technologies.
EXC8522	To explain optical networking technologies.
EXC8523	To analysis the performance of WAN technologies.
EXC8524	To design the network using security and management solutions.

Unique Course Number: EXC803 Course Name: MEMS Technology

Unique CO Number	Course Outcome (CO) Statement
EXC8731	Describe Fundamental of MEMS Devices.
EXC8732	Select suitable materials and their properties for MEMS Devices.
EXC8733	Choose different fabrication process for MEMS Devices
EXC8734	Model different MEMS Devices and their Characteristics.

Unique Course Number: EXC8041 Course Name: Robotics & Automation

Unique CO Number	Course Outcome (CO) Statement
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EX8821	Define the concepts and techniques in robot manipulator control.
EX8822	Describe direct kinematics and inverse kinematics of different robots with work geometry.
EX8823	Apply image processing techniques for robot vision
EX8824	Describe trajectory planning and path planning using various algorithms.

Unique Course Number: EXC8042

Course Name: Mobile Communication

Unique CO Number	Course Outcome (CO) Statement
EXC8531	Understand the fundamentals of mobile communication.
EXC8532	Identify and understand the architecture and protocols of GSM communication system.
EXC8533	Understand and analyze CDMA standards.
EXC8534	Analyze and compare the performance of emerging trends in mobile communication.

Unique Course Number: EXC806

Course Name: Project II

Unique CO Number	Course Outcome (CO) Statement
EX8411	Debug hardware/software in implementation of project and compare coexisting contemporary technique
EX8412	Test and demonstrate the technical work of the project
EX8413	Document the technical work of the project
EX8414	Identify future scope of the project

LO STATEMENTS

Unique Course Number: EXL801

Course Name: CMOS VLSI Design Laboratory

Unique number	LO statement
EXL87021	Recognize tradeoffs involved in analog VLSI circuits



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EXL87022	Evaluate MOSFET based analog building blocks and amplifiers
EXL87023	Design MOSFET based differential amplifier and operational amplifier
EXL87024	mixed signal circuits and layout techniques

Unique Course Number:EXL802 Course Name: Advanced networking Technologies Laboratory

Unique number	LO statement
EXL8541	To study and design Wireless Networks
EXL8542	To design ATM and Frame Relay Networks using OPNET
EXL8543	To design networks and analyse traffic parameters using OPNET
EXL8544	To implement networking tools using Red Hat Linux

Unique Course Number:EXL803 Course Name: MEMS Laboratory

Unique number	LO statement
EXL8741	Model various MEMS Devices.
EXL8742	Measure various parameters for MEMS Devices.
EXL8743	Plot characteristics of MEMS Devices.
EXL8744	Explain different applications of MEMS DEVICES.

Unique Course Number:ELX8041 Course Name: Robotics Laboratory

Unique number	LO statement
EXL8821	To understand and determine the workspace Envelop of various robots(knowledge)
EXL8822	To simulate direct kinematics and inverse kinematics of different robots with work geometry. (comprehension)
EXL8823	To apply and simulate image processing techniques for robot vision. (Application)
EXL8824	To simulate trajectory planning and path planning using various algorithms. (comprehension)



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EXL8825	To apply and simulate image processing techniques for robot vision. (Application)
EXL8826	To simulate trajectory planning and path planning using various algorithms. (comprehension)

Unique Course Number: EXL8042 Course Name: Mobile Communication Laboratory

Unique number	LO statement
EXL8551	Understand the working of simple mobile station hardware using GSM standard and understand the concept of frequency reuse system capacity, band allocation
EXL8552	Simulate the mobile communication parameters such as cluster size, signal to interference ratio and know the technical details of mobile station.
EXL8553	Find out the transmission parameters of CDMA system
EXL8554	Appreciate the emerging trends in mobile communication.