

# ACHARYA INSTITUTE OF TECHNOLOGY

## Dept. of ECE

### Bengaluru

DEPARTMENT	ECE	SEMESTER	6	COURSE CODE	15EC61	COURSE ID	C311
COURSE TITLE		DIGITAL COMMUNICATIONS					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C3E1.1		Apply the concept of sampling, quantization, encoding and reconstruction in base band transmission system.					
C3E1.2		Analyze the performance of Digital Modulation Schemes in terms of probability of Error, Spectral Efficiency and Power					
C3E1.3		Determine quantization error, error rate, SNR and the power spectra of discrete PAM signal to estimate the performance of various signalling formats.					
C3E1.4		Analyze the performance of optimum receivers by applying theory of estimation and infer the performance of various spread spectrum techniques.					
DEPARTMENT	ECE	SEMESTER	6	COURSE CODE	15EC62	COURSE ID	C312
COURSE TITLE		Arm Microcontroller & Embedded Systems					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C3E2.1		Describe the architecture of ARM processors, Memory types and principles of RTOS					
C3E2.2		Explain ARM cortex M3 instruction set					
C3E2.3		Write an ALP by making use of appropriate instructions.					
C3E2.4		Analyze the performance of scheduling algorithms used in RTOS.					
DEPARTMENT	ECE	SEMESTER	6	COURSE CODE	15EC63	COURSE ID	C313
COURSE TITLE		VLSI Design					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C3E3.1		Analyze the characteristics and parameters of MOScircuits in VLSI design.					
C3E3.2		Discuss CMOS fabrication process, subsystems design and VLSI architectures.					
C3E3.3		Apply design rules to draw schematic and layout of MOS circuits .					
C3E3.4		Analyze the performance of CMOS circuits in terms of memory, speed, power and area.					
DEPARTMENT	ECE	SEMESTER	6	COURSE CODE	15EC64	COURSE ID	C314
COURSE TITLE		Computer Communication Networks					
COURSE OUTCOME NO		COURSE OUTCOME STATEMENTS					
C3E4.1		Describe network components, header/frame formats, & functionalities for data Communication					
C3E4.2		Apply message forwarding / routing schemes in TCP/IP model for end-to end data transmission.					
C3E4.3		Apply different medium access and control techniques for optimal resource utilization					
C3E4.4		Design Subnet masks and range of addresses for a given network.					
DEPARTMENT	ECE	SEMESTER	6	COURSE CODE	15EC65	COURSE ID	C315

<b>COURSE TITLE</b>		<b>Cellular Mobile Communication</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
<b>C3E5.1</b>		Expalin Cellular Concepts and mobile radio propagation with small scale and multipath fading					
<b>C3E5.2</b>		Estimate path loss, link budget, capacity and other cellular parameters					
<b>C3E5.3</b>		Comprehend the cellular architecture addressing and services					
<b>C3E5.4</b>		Analyze the GSM and CDMA technology					
<b>DEPARTMENT</b>	<b>ECE</b>	<b>SEMESTER</b>	<b>6</b>	<b>COURSE CODE</b>	<b>15EC653</b>	<b>COURSE ID</b>	<b>C315</b>
<b>COURSE TITLE</b>		<b>Artificail Neural Networks</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
<b>C3E5.1</b>		Describe various terminologies associated with Neural Networks in supervised/unsupervised learning.					
<b>C3E5.2</b>		Identify different neural network architectures, their limitations and appropriate learning rules for each of the architectures.					
<b>C3E5.3</b>		Select appropriate Neural Network Algorithm for any given Classification problem.					
<b>C3E5.4</b>		Analyze the performance of Neural networks.					
<b>DEPARTMENT</b>	<b>ECE</b>	<b>SEMESTER</b>	<b>6</b>	<b>COURSE CODE</b>	<b>15ECL661</b>	<b>COURSE ID</b>	<b>C316</b>
<b>COURSE TITLE</b>		<b>Data Structures using C++</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
<b>C3E6.1</b>		Understood the fundamental concepts of arrays, pointers, and linked lists using C++.					
<b>C3E6.2</b>		Able to apply arrays and linked list concepts to design and analyze stacks, queues and applications of these data structures to real time applications					
<b>C3E6.3</b>		Able to apply arrays and linked list concepts to design and analyze the skip lists, binary trees and applications of these data structures to real time applications					
<b>C3E6.4</b>		Able to apply arrays and linked list concepts to design and analyze the priority queues, binary search trees and applications of these data structures to real time applications					
<b>DEPARTMENT</b>	<b>ECE</b>	<b>SEMESTER</b>	<b>6</b>	<b>COURSE CODE</b>	<b>15ECL663</b>	<b>COURSE ID</b>	<b>C316</b>
<b>COURSE TITLE</b>		<b>Digital System Design using Verilog</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
<b>C3E6.1</b>		Apply the Systematic process for designing digital circuits using Verilog HDL.					
<b>C3E6.2</b>		Analyze and model different types of Memories used in Embedded Systems					
<b>C3E6.3</b>		Identify the different types of I/O controllers and requirements for interfacing I/O devices .					
<b>C3E6.4</b>		Design sequential circuits, data paths and develop a Verilog HDL model					
<b>DEPARTMENT</b>	<b>ECE</b>	<b>SEMESTER</b>	<b>6</b>	<b>COURSE CODE</b>	<b>15ECL67</b>	<b>COURSE ID</b>	<b>C317</b>
<b>COURSE TITLE</b>		<b>Embedded Controller LAB</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
<b>C3E7.1</b>		Identify the ARM Cortex M3 Microcontroller Instruction Set and Hardware devices					
<b>C3E7.2</b>		Demonstrate the Instruction set of ARM cortex M3 Microcontroller in					

		Programming					
<b>C3E7.3</b>		Use the External hardware to Interface Peripheral devices with LPC1768 Microcontroller.					
<b>DEPARTMENT</b>	<b>ECE</b>	<b>SEMESTER</b>	<b>6</b>	<b>COURSE CODE</b>	<b>15ECL68</b>	<b>COURSE ID</b>	<b>C318</b>
<b>COURSE TITLE</b>		<b>COMPUTER NETWORKS LAB</b>					
<b>COURSE OUTCOME NO</b>		<b>COURSE OUTCOME STATEMENTS</b>					
<b>C3E8.1</b>		Implement & Analyze Transport & Network layer protocols using Network Simulator tool.					
<b>C3E8.2</b>		Simulate Wired & wireless network environment to compute the network parameters.					
<b>C3E8.3</b>		Write C/C++ Programs to implement routing algorithms in different Network topologies.					
<b>C3E8.4</b>		Develop C/C++ Programs for framing & transmission of data.					