

## CSE Department All CO'S

### SANJEEVAN ENGINEERING & TECHNOLOGY INSTITUTE, PANHALA

#### Department of Computer Science & Engineering

Name of Program	Computer Science & Engineering	Program Code	631524210
Class	SE CSE SEM-III	Course Code	63525
Name of Course	Discrete Mathematical Structure	At the end of the course the students should be able to :	
Course Outcomes	A	Able to apply this knowledge to solve the problems.	
	B	An ability to identify, formulates, and solves the problems.	
	C	Ability to know and to understand various types of Numerical methods	
	D	The knowledge of interpolation is useful in predicting future outcomes based on the present knowledge.	
	E	Inculcate the habit of mathematical thinking.	
	F	A complete knowledge on various discrete structures available in literature	
Name of Course	Data Structures	Course Code	63526
		At the end of the course the students should be able to :	
Course Outcomes	1	Familiar with basic data structures.	
	2	Discuss and select appropriate data structures in computer applications.	
	3	Implement various data structures.	
Name of Course	Programming Lab-I	Course Code	63529
		At the end of the course the students should be able to :	
Course Outcomes	1	Recognize basics of programming techniques like writing algorithms, representing flowcharts and learning the basics of programming with the help of C Programming Language.	
	2	Collect the essential knowledge of arrays and pointers.	
	3	Show Function features and its use while writing the programs.	
	4	Outline the Structure, Union and its application in writing complex programs.	
	5	Explain Use of File Handling Concepts and functions related to it.	
Name of Course	Soft Skills	Course Code	62530
		At the end of the course the students should be able to :	
Course Outcomes	1	To enhance the communications skills of the students.	
	2	To expose the students to basic skills of team work.	
	3	To inculcate the writing skills necessary for business communications.	
Name of Course	Data Communications	Course Code	63527
Course Outcomes	1	Acquire sound fundamental of data communication through computer networks.	
	2	Distinguish analog and digital data communication and the technology involved in data communication.	
	3	Discern digital data transmission methods, channel, channel coding	
	4	Comprehend layered architecture of data communication models and different protocols and understand flow control and error control	
	5	Recognize IEEE standards for wired transmission of digital data in LANs and MANs	

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Name of Program	Computer Science & Engineering	Program Code	631524210
Class	SE CSE SEM-IV	Course Code	63533
Name of Course	Computer Organization	At the end of the course the students should be able to :	
Course Outcomes	1	Describe Basics of Computer Organization	
	2	Explain Basics of CPU Design	
	3	Discuss & Solve Computer Arithmetic	
	4	Describe Control Design Methods	
	5	Learn & Describe Memory Organization	
Name of Course	Programming Lab-II	Course Code	63536
Course Outcomes	1	Recognize the concepts of object oriented paradigm.	
	2	Discuss the use of the programming constructs of C++.	
	3	Develop applications based on concepts of Discrete Mathematical Structures and	
Name of Course	Operating System	Course Code	63534
Course Outcomes	1	Master understanding of design issues associated with operating systems.	
	2	Master concepts of memory management including virtual memory.	
	3	Be familiar with protection and security mechanisms	
	4	Be familiar with various types of operating systems including Unix.	
	5	Master various process management concepts including process scheduling, process synchronization, deadlocks & multithreading.	
Name of Course	Software Engg	Course Code	63535
Course Outcomes	1	Understand the basic concepts & principles of software engineering.	
	2	Apply importance of SDLC in their project development work.	
	3	Understands software testing techniques and software quality management.	
Name of Course	Computer Networks	Course Code	63532
Course Outcomes	1	understand the different layers of OSI model & Network layer Routing Algorithms	
	2	analyze the different logical addressing schemas.	
	3	explain the congestion control techniques with QoS.	
	4	understand the basic of socket interfaces.	
	5	discuss the functionality of an application layer.	
	6	compare the traditional security aspect.	
Name of Course	Automata Theory	Course Code	63531
Course Outcomes	1	Design and analyze finite automata, pushdown automata, Turing machines, formal languages, and grammars	
	2	Prove the basic results of the Theory of Computation	
	3	Be familiar with thinking analytically and intuitively for problem solving situations in related areas of theory in computer science	

  
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Name of Program	Computer Science & Engineering	Program Code	631524210
Class	TE CSE SEM-V	Course Code	66295
Name of Course	Object Oriented Modeling and Design	At the end of the course the students should be able to :	
Course Outcomes	1	Understand the Object-Oriented Design Process	
	2	Able to study & implement different models.	
	3	Able to modeling usingUML.	
	4	Able to understand flexible & reusable design of software components	
Name of Course	Computer Graphics	Course Code	66293
Course Outcomes	1	Discuss various transformation techniques and projections.	
	2	Understand different algorithms concerned with scanning, filling, windowing and clipping on graphical objects.	
	3	Aware of generation of curves and surfaces.	
	4	Use Open GL and Animation tools for demonstration.	
Name of Course	Programming Lab-III	Course Code	66298
Class	TECSE	At the end of the course the students should be able to :	
Course Outcomes	1	Express fundamental object oriented concepts of Java.	
	2	Practice Application of Interface, inheritance and packaging in Java.	
	3	Practice exceptions and file handling in java	
	4	Design GUI using AWT and SWING packages in Java along with event handling.	
	5	Develop the network programming skills in Java.	
	6	Design database application using java & open source database.	
Name of Course	Computer Algorithm	Course Code	66296
Course Outcomes	1	Describe the fundamental concepts in designing and analysing computer algorithms.	
	2	Design basic algorithms using methods like Greedy, Divide and Conquer and Dynamic Programming.	
	3	Apply tree, graph traversal and search techniques and backtracking to design efficient algorithm.	
	4	Apply methods of problem reduction for NP hard problems	
	5	Express the computational model and fundamentals of parallel Algorithms	
Name of Course	System Programming	Course Code	66294
Course Outcomes	1	Analyze Language Processor and Language Processing Activities	
	2	Synthesis the Pass I and Pass II structure of Assembler	
	3	Understand Macros and Macro Preprocessor.	
	4	Interpretation of Compilers and Interpreters,YACC parser	
	5	Apply the use of Relocation, Linking and Software Tools	
Name of Course	Network Technologies	Course Code	66297
Course Outcomes	1	Able to understand the different generations of wireless cellular Networks	
	2	Able to analyze design issues of IEEE 802.11 Wireless LAN.	
	3	Able to study architecture and applications of IEEE 802.15 Wireless PAN.	
	4	Able to understand different Wireless Protocol.	
	5	Able to expose the security in Wireless Access Protocol.	
	6	Able to understand Wireless Sensor Architecture and Sensor Devices	

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Name of Program	Computer Science & Engineering	Program Code	631524210
Class	TE CSE SEM-VI	Course Code	66861
Name of Course	Storage Networks	At the end of the course the students should be able to :	
Course Outcomes	1	Recognize the key challenges in information management.	
	2	Discuss about storage system architecture and data protection.	
	3	Discuss about Storage Area Network- concepts, components and protocols.	
	4	Network -Attached Storage - concepts, components, implementation and protocols.	
	5	Explain Architecture of Storage Virtualization.	
	6	Understand Need of Replication, Replication techniques and Storage Security.	
Name of Course	Database Engineering	Course Code	66860
Course Outcomes	1	Design Data model using E-R modeling technique for application development.	
	2	Answer to the advanced & complex SQL queries in real world	
	3	Develop the programming interface to the DBMS server using high level programming language java.	
	4	Implement indexing on data stored in DBMS.	
	5	Use the advanced tools like MySQL Workbench efficiently.	
Name of Course	Information Security	Course Code	66862
Course Outcomes	1	Understand the current technology trends for the implementation and deployment of information security system.	
	2	Acquire knowledge and solve problems related information security	
	3	Analyse the challenges in designing information security service.	
	4	Comprehend the various information security service tools and	
	5	Ability design, implement and verify the System Design Process using real time applications.	
Name of Course	Programming Lab - IV	Course Code	66863
Course Outcomes	1	Design, document, code and test small C# console and GUI applications.	
	2	Understanding the basics of dot net framework and features of modern programming language.	
	3	Use the Visual Studio IDE to create and debug application and class library solutions and projects.	
Name of Course	Compiler Construction	Course Code	66858
Course Outcomes	1	Describe various stages of compiler construction.	
	2	Summarize concepts of Lexical Analysis and apply it for token generation process.	
	3	Demonstrate steps involved in Syntax Analysis with help of various parsing techniques and analyze the differences in attributed definitions for Syntax trees.	
	4	Catalogue and sketch relationship between Intermediate Code Generation, Code Generation and Optimization Techniques and execute on a mathematical expression.	
	5	Critique on symbol table generation methods and perform various techniques to generate these symbol tables.	
Name of Course	Operating System	Course Code	66859
Course Outcomes	1	Understand basic concept and architecture of UNIX operating system and Write algorithms of buffer cache.	
	2	Learn the concept of i-node and system Calls for file system.	
	3	Understand Process Stages and Transitions, Process structure, creation and management in UNIX.	
	4	Compare between Swapping and Demand paging IN Unix, I/O Subsystem.	

  
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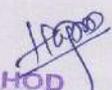
Name of Program	Computer Science & Engineering	Program Code	631524210
Class	BE CSE SEM-VII	Course Code	CS7L05
Name of Course	Web Technologies-I	At the end of the course the students should be able to :	
Course Outcomes	1	Understand different Web Technologies.	
	2	Able to Design Front End Web Content.	
	3	Learns Basics of XML & Its related Technologies	
	4	Able to implement different XML Applications with its Technologies.	
	5	Develop Web Applications using Servlets.	
	6	Develop Web Applications using JSP.	
Name of Course	Advanced Database System	Course Code	CS7L03
Course Outcomes	1	Apply the features, implementation techniques and challenges of Parallel Databases	
	2	Analyse advanced databases like Object-Based and Object Relational databases	
	3	Create advanced SQL queries ,functions and procedures	
	4	Discuss different Database Design techniques.	
	5	Design databases for semi-structured dataDesign database	
Name of Course	Ad Hoc Wireless Network	Course Code	CS7E04
Course Outcomes	1	Able to apply this knowledge to solve the real time networking problems.	
	2	Ability to know and to understand ad hoc wireless network and cellular network.	
	3	Ability to know and to understand various types of wireless network.	
	4	The knowledge of interpolation is useful in predicting future outcomes based on the present knowledge.	
	5	Inculcate the habit of networking thinking.	
	6	A complete knowledge on various wireless network available in literature	
Name of Course	Advanced Computer Architecture	Course Code	CS7C01
Course Outcomes	1	To understand different computer architectures	
	2	To learn concepts of pipeline architectures and different performance measures	
	3	To understand memory organizations	
	4	To understand latest technologies in parallel processing	
	5	To understand loosely coupled architectures	
Name of Course	Distributed Systems	Course Code	CS7L02
Course Outcomes	1	Explain what a distributed system is, why we should design a system as a distributed system, and what the desired properties of such systems are.	
	2	Describe the problems and challenges associated with these principles, and evaluate the effectiveness and shortcomings of their solutions	
	3	Implement the algorithms used in distributed system & visualize their working	
	4	Explain uses and need of cloud computing and virtualization.	
	5	List the services provided by cloud computing and security aspects of cloud.	

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Name of Program	Computer Science & Engineering	Program Code	631524210
Class	BE CSE SEM-VIII	Course Code	CS8L05
Name of Course	Web Technologies - II	At the end of the course the students should be able to :	
Course Outcomes	1	Understand different Web Technologies.	
	2	Able to implement client side and server side scripting languages and validation techniques.	
	3	Access & manage Database using Scripting Languages	
	4	Session management using Scripting Languages	
	5	Develop Web Applications using ASP.NET.	
	6	Develop Web Applications using PHP.	
Name of Course	Data Analytics	Course Code	CS8C01
Course Outcomes	1	Understand Decision Support System	
	2	Analyze Mathematical Models For DSS	
	3	Understand Big Data & Hadoop Ecosystem	
	4	Interpretation of Regression and Association Rules.	
	5	Apply Basic Features of R. Apply Basic Features of R.	
Name of Course	Real Time Operating System	Course Code	CS8C03
Course Outcomes	A	To discuss the basics of embedded systems and the interface	
	B	To learn the different techniques on embedded systems	
	C	To discuss the real time models, languages and operating	
	D	To analyze real time Applications.	
	E	Design real time embedded systems using the concepts of RTOS.	
Name of Course	Project Management	Course Code	CS8C02
Course Outcomes	1	Understand the basics of project management principles	
	2	Identify the impact of scope, time & cost management.	
	3	Analyze software quality metrics and quality assurance.	
	4	Develop strategies to calculate risk factors involved in IT projects	
	5	Manage the human resource planning in Project.	
	6	Demonstrate competency in the creation of project plans.	
Name of Course	Software Testing Quality and Assurance	Course Code	CS8E04
Course Outcomes	1	Finding key challenges in information management.	
	2	Storage system architecture and data protection.	
	3	Storage Area Network- concepts, components and protocols.	
	4	Network -Attached Storage - concepts, components, implementation and protocols.	
	5	Architecture of Storage Virtualization.	
		Need of Backup and Replication, Replication techniques and Storage Security.	

  
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