2.3.1 - Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

The teaching-learning process is one major objective and the strength of our college. SICET follows student centric methods, that approach provides different learning aspects. Outcome Based Education (OBE) is a transformational method that focuses on evaluating the outcomes of the programme by stating the knowledge, skill and behavior of a graduate. It emphasizes the design of curriculum, outcome based teaching-learning, assessment and evaluation.

Students are given a right blend of traditional and modern methods to make learning student-centric and a rewarding experience. Experiential learning, participative learning and problem solving methodologies are well adopted to ensure the holistic development of students and facilitate lifelong learning and knowledge management. Participative learning

1. Design/development of solutions: Students attempt to develop solutions for complex engineering problems and design system components/processes that meet the specified needs of realtime cases through group analysis, brainstorming etc.
2. Mind Maps for creativity: Teachers create a central node on a Mind Map and provide students the freedom to expand and develop novel ideas.
3. Flipped Classes, blended learning and model making methods are introduced for selected topics to enhance participative learning.
4. Students are encouraged and presently made mandatory to take (Massive Open Online Courses) MOOCs, NPTEL, Course Era courses. They include online lectures, demonstrations and interaction through skype sessions.
5. Project works involving latest technologies and use of advanced softwares.
6. GTP / CRT Training Classes and Company specific training classes. All academic activities are aimed at elevating students' knowledge, skills.

The faculty members of SICET, make use of Information & Communications Technology (ICT) enabled tools (including online resources) for teaching learning process. Classrooms are furnished with LCD projectors to facilitate technical presentations (seminars / workshops) and telecast educational videos Laboratories, Seminar Halls, Auditorium, and other conference rooms are

equipped with ICT tools and

enabled Wi-Fi Computer laboratories with high speed internet connection are available for research paper presentation, seminars, debates, group discussions, assignments, quiz / tests / viva and laboratory work. Virtual laboratories are used to conduct lab sessions using simulation and programming module.

STUDENT CENTRIC METHODS

EXPERIMENTIAL LEARNING		
S. No	**Method**	
1	Practical Oriented Teaching	
2	Model Based	
3	Open House Exhibitions And Idea Presentation	
4	Industrial Visits	
PARTICIPATIVE LEARNING		
1	Self-Learning Capability by Taking One Credit Courses	
2	Value Added Courses	
3	Swayam/NPTEL Courses	
4	Competitive Examinations	
5	Developing Prototype	
6	Working Models	
7	Professional Societies (Like IEEE, CSI, ISTE, IETE) And Various Club Activities	
8	Participations in Hackathon	
9	Internship	
PROBLEM SOLVING METHODOLOGIES		
1	Objective Type Questions in Higher Level of Thinking	
2	Real Time Assignments and Case Studies Collaborative Learning Model	
3	Simulation Tools and Virtual Labs	

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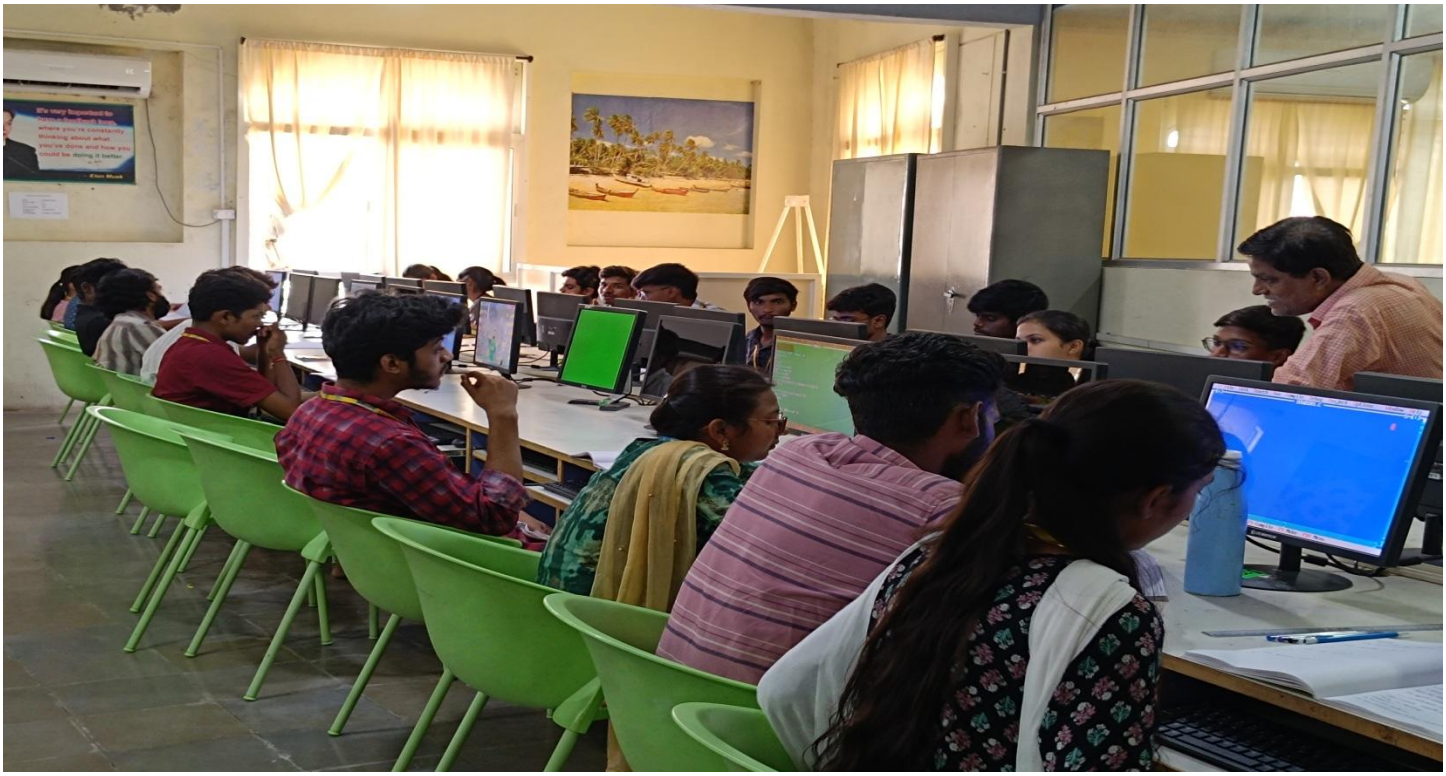
DEPARTMENT OF INFORMATION TECHNOLOGY

LABORATORY COURSES
(A.Y: 2023-24)

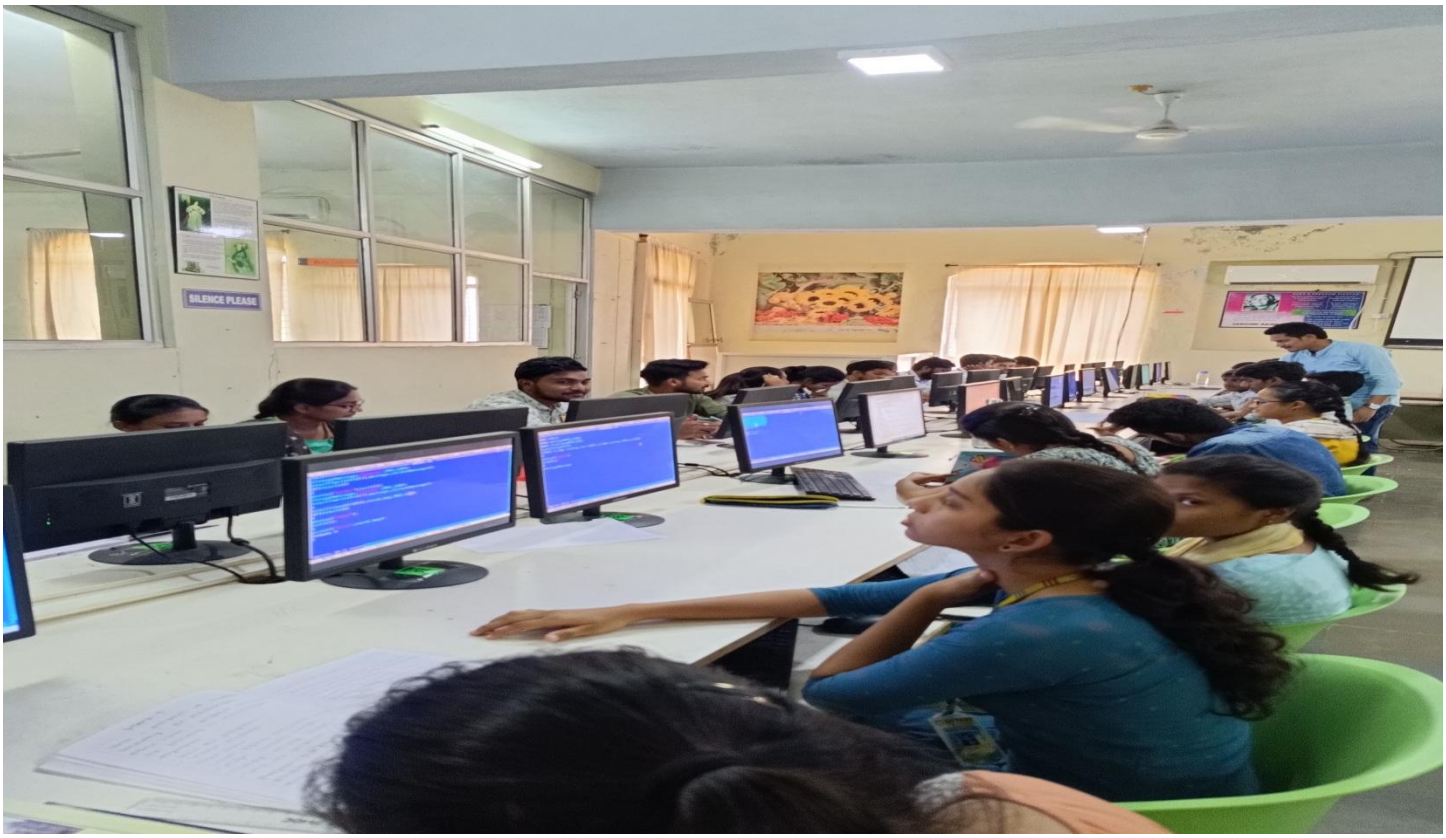
S.No.	YEAR/SEM	COURSE CODE	NAME OF THE LABORATORY
1.	II/I	R22ECE2126	Digital Electronics Lab
2.	II/I	R22CSE2126	Data Structures Lab
3.	II/I	R22CSO2128	Internet of Things Lab
4.	II/I	R22MAC2120	Gender Sensitization Lab
5.	II/I	R22CSE2129	Skill Development Course (Data Visualization – R Programming / Power BI).
6.	II/II	R22CSE2226	Operating Systems Lab
7.	II/II	R22CSE2227	Database Management Systems Lab
8.	II/II	R22CSI2228	Java Programming lab
9.	II/II	R22CSE2221	Skill Development Course (Node JS/React JS/ Django)
10.	II/II	R22INF2269	Real-Time Research Project/Societal Related Project
11.	III/I	R20CSE31L1	Software Engineering Lab
12.	III/I	R20CSE31L2	Computer Networks & Web Technologies Lab
13.	III/I	R20HAS31L1	Advanced Communication Skills Lab
14.	III/II	R20CSE32L1	Machine Learning Lab
15.	III/II	R20INF32L1	Compiler Construction Lab
16.	III/II	R20CSE32L3	Software Testing Methodologies Lab
17.	IV/I	R20INF41L1	Information Security Lab

Internet of Things Lab

Data Structures Lab



Operating Systems Lab

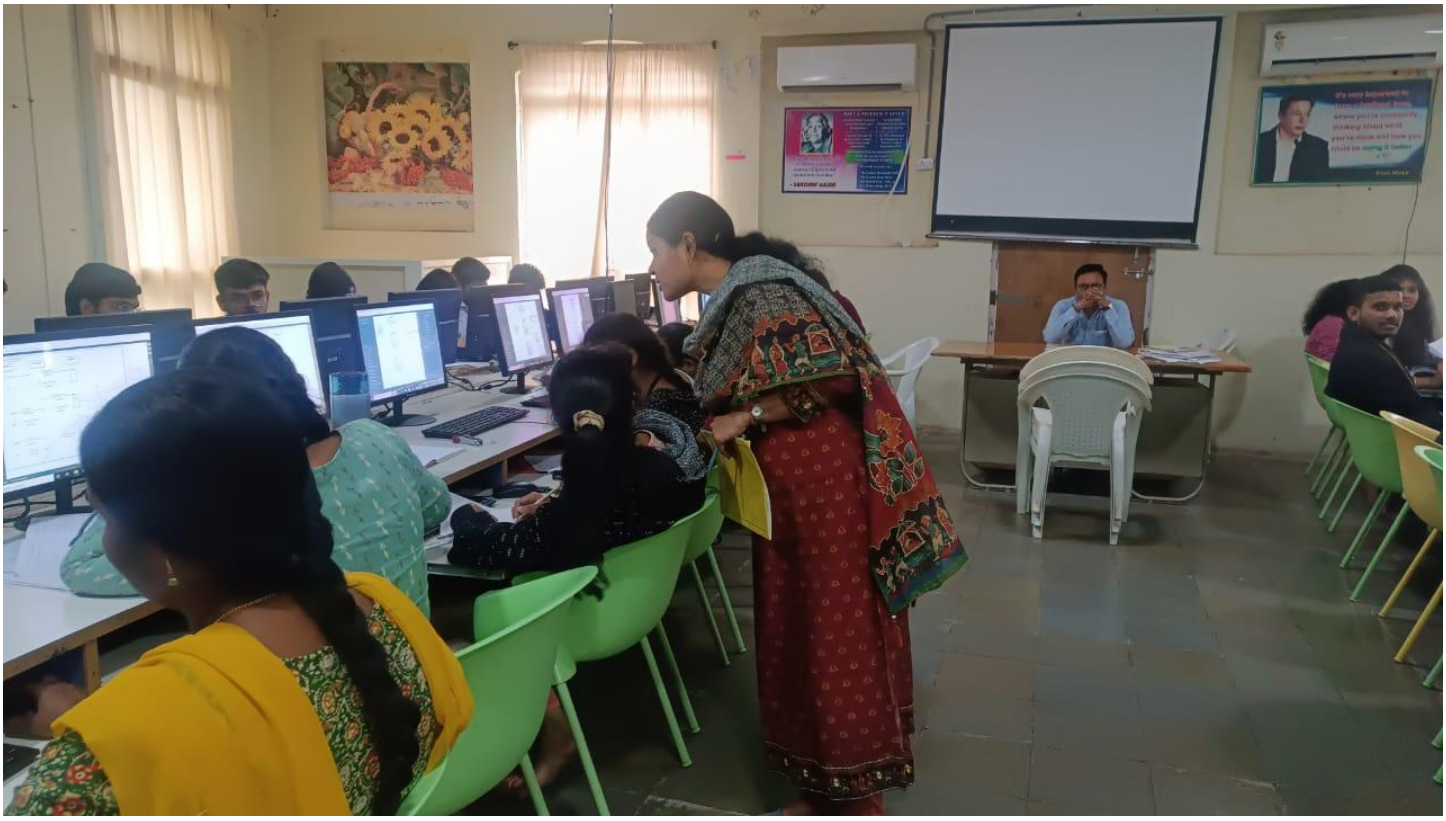


Java Programming lab

Database Management Systems Lab

Skill Development Course

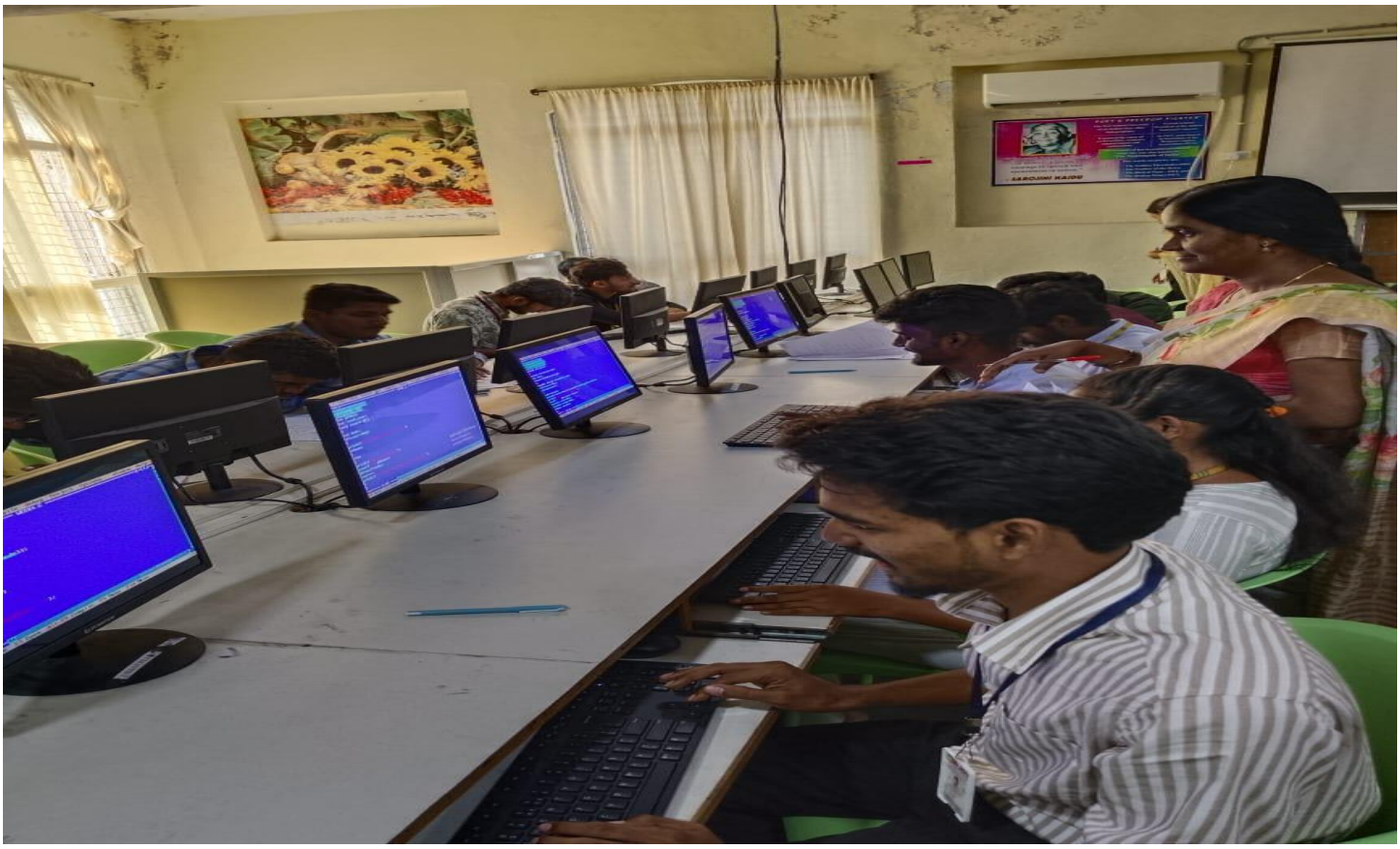
Software Engineering Lab



Software Testing Methodologies Lab

Computer Networks & Web Technologies Lab

Machine Learning Lab



Compiler Construction Lab

Information Security Lab

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DEPARTMENT OF INFORMATION TECHNOLOGY

MODEL BASED TEACHING

MODEL BASED TEACHING

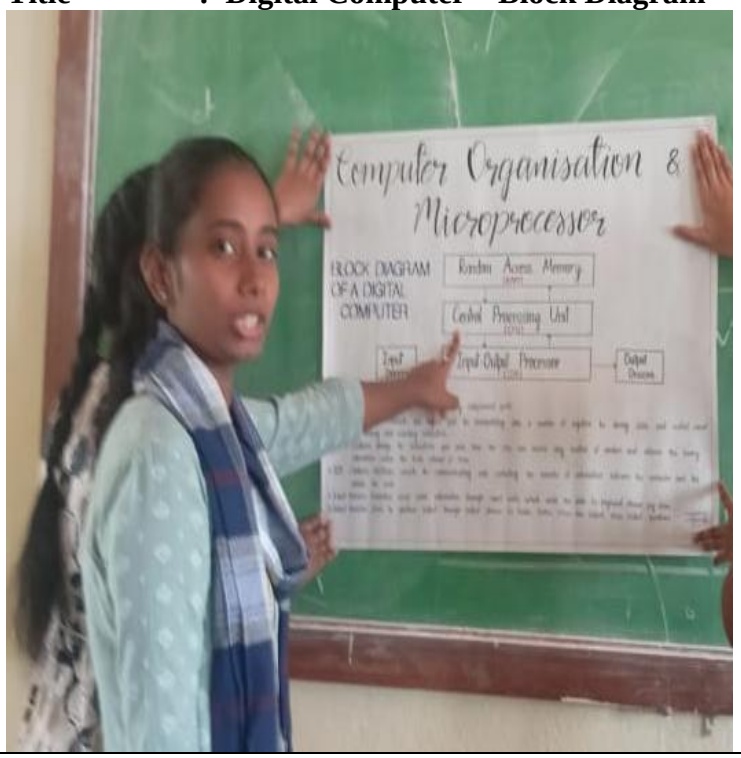
1. Chart
2. Working models
3. Animated Videos
4. Role Play
5. Poster presentation

S.No.	YEAR/SEM	SUBJECT	CHART	MODEL	ANIMATED VIDEOS	ROLE PLAY	POSTER
1.	II /I	Digital Electronics	✓	✓	✓		✓
2.	II /I	Data Structures	✓	✓	✓	✓	✓
3.	II /I	Computer Oriented Statistical Methods	✓	✓	✓		✓
4.	II /I	Computer Organization and Microprocessor	✓	✓	✓	✓	✓
5.	II /I	Introduction to IOT	✓	✓	✓	✓	✓
6.	II/II	Discrete Mathematics	✓	✓	✓	✓	✓
7.	II/II	Business Economics and Financial Analysis	✓	✓	✓	✓	✓
8.	II/II	Operating Systems	✓	✓	✓	✓	✓
9.	II/II	Database Management Systems	✓	✓	✓	✓	✓
10.	II/II	Java Programming	✓	✓	✓	✓	✓
11.	III/I	Business Economics & Financial	✓	✓	✓		✓

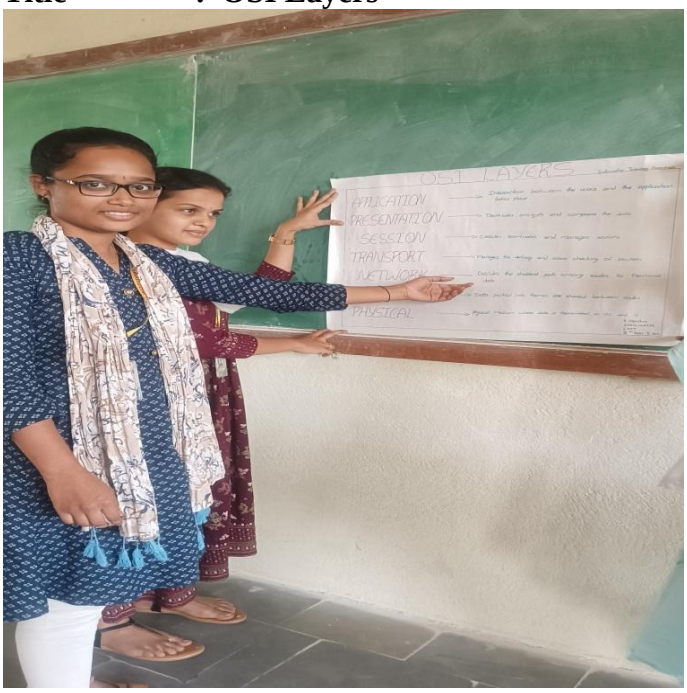
		Analysis					
12.	III/I	Software Engineering	✓	✓	✓	✓	✓
13.	III/I	Data Communication & Computer Networks	✓	✓	✓	✓	✓
14.	III/I	Web Technologies	✓	✓	✓	✓	✓
15.	III/I	Principles of Programming Languages	✓	✓	✓	✓	✓
16.	III/I	Artificial Intelligence	✓	✓	✓	✓	✓
17.	III/II	Machine Learning	✓	✓	✓	✓	✓
18.	III/II	Principles of Compiler Construction	✓	✓	✓	✓	✓
19.	III/II	Algorithm Design and Analysis	✓	✓	✓	✓	✓
20.	III/II	Software Testing Methodologies	✓	✓	✓	✓	✓
21.	III/II	Information Technology Essentials	✓	✓	✓	✓	✓
22.	IV/I	Information Security	✓	✓	✓	✓	✓
23.	IV/I	Data Mining	✓	✓	✓	✓	✓
24.	IV/I	Cloud Computing	✓	✓	✓	✓	✓
25.	IV/I	Internet of Things	✓	✓	✓	✓	✓
26.	IV/I	E-Commerce	✓	✓	✓	✓	✓
27.	IV/II	Organizational Behavior	✓	✓	✓	✓	✓
28.	IV/II	Distributed Systems	✓	✓	✓	✓	✓
29.	IV/II	Information Security Fundamentals	✓	✓	✓	✓	✓

Course Name : Digital Electronics
Class : II B.Tech. I Sem
Teacher : Mr. A. Venu
Activity : Chart work
Title : Flip-Flop & Its Types

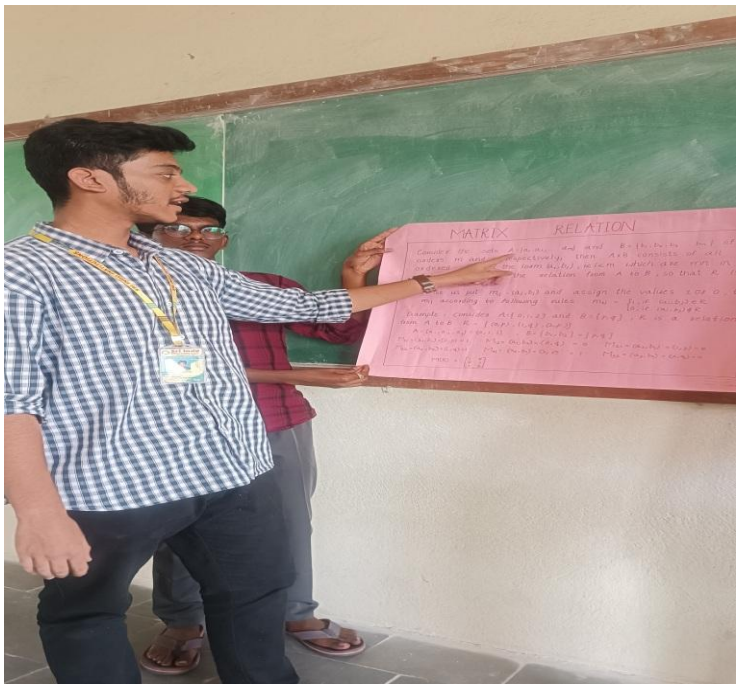
Course Name : COMP
Class : II B.Tech. I Sem
Teacher : Mrs. Y. Harathi
Activity : Chart work
Title : Digital Computer – Block Diagram



Course Name : Operating Systems
Class : II B.Tech. II Sem
Teacher : Dr. P. Epsiba
Activity : Chart work
Title : OSI Layers



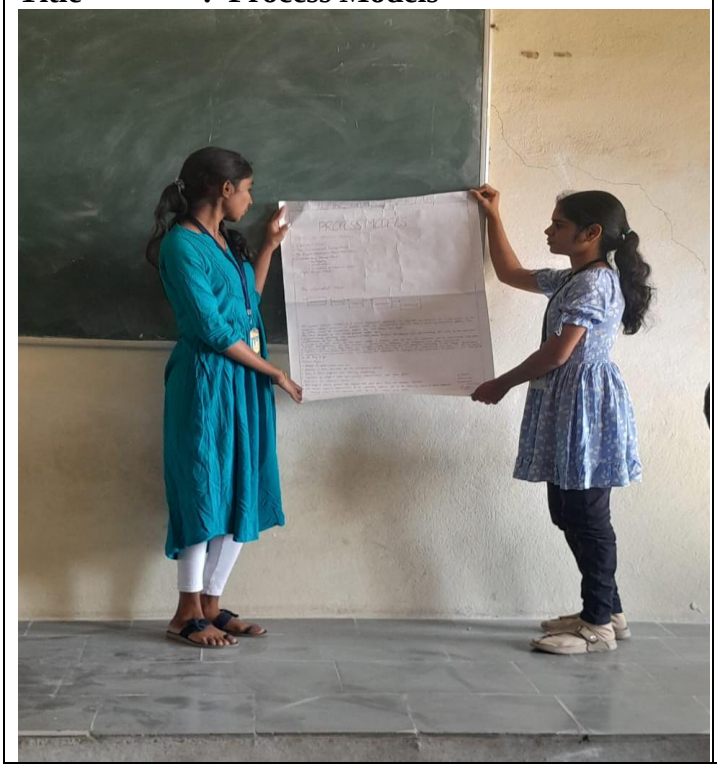
Course Name : Discrete Mathematics
Class : II B.Tech. II Sem
Teacher : Mrs. Sri Usha
Activity : Chart work
Title : Matrix Relation



Course Name : Database Management System
Class : II B.Tech. II Sem
Teacher : Mrs. J. Hemalatha
Activity : Chart work
Title : Types of Attributes

Course Name : Java Programming
Class : II B.Tech. II Sem
Teacher : Mr. Shek Shakeek
Activity : Chart work
Title : Event Handlers

Course Name : Software Engineering
Class : III B.Tech. I Sem
Teacher : Mrs. K. Priyanka
Activity : Chart work
Title : Process Models

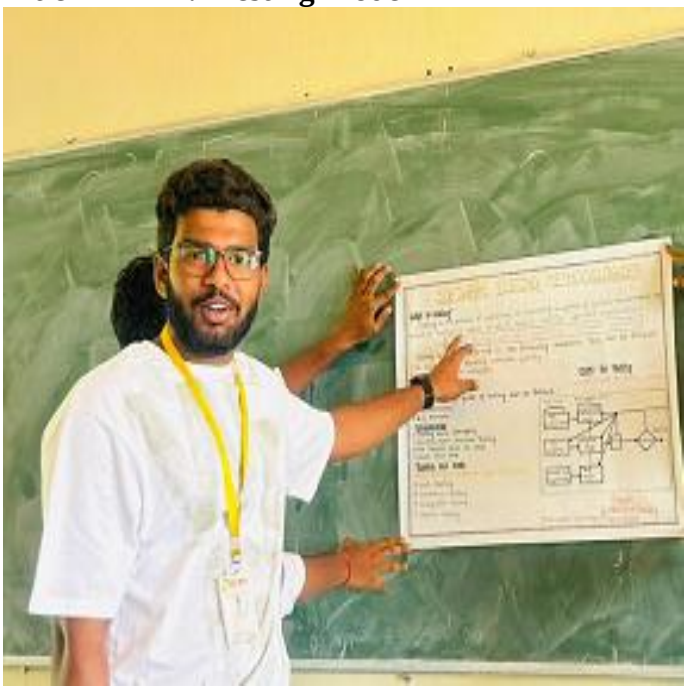


Course Name : Web Technologies
Class : III B.Tech. I Sem
Teacher : Mrs. J Sasirekha
Activity : Chart work
Title : Servlet Life Cycle

Course Name : Machine Learning
Class : III B.Tech. II Sem
Teacher : Mrs. J. Sri vidhya
Activity : Chart work
Title : Applications of ML

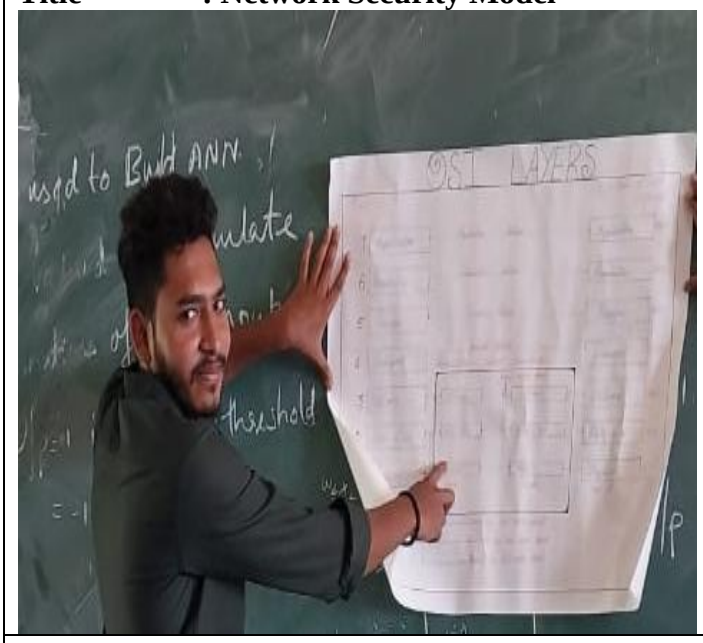
Course Name : Algorithm Design Analysis
Class : III B.Tech. II Sem
Teacher : Mrs. K. Priyanka
Activity : Chart work
Title : Job Sequencing Problem

Course Name : Software Testing Methodologies
Class : III B.Tech. II Sem
Teacher : Mr. P. Veeranna
Activity : Chart work
Title : Testing Model



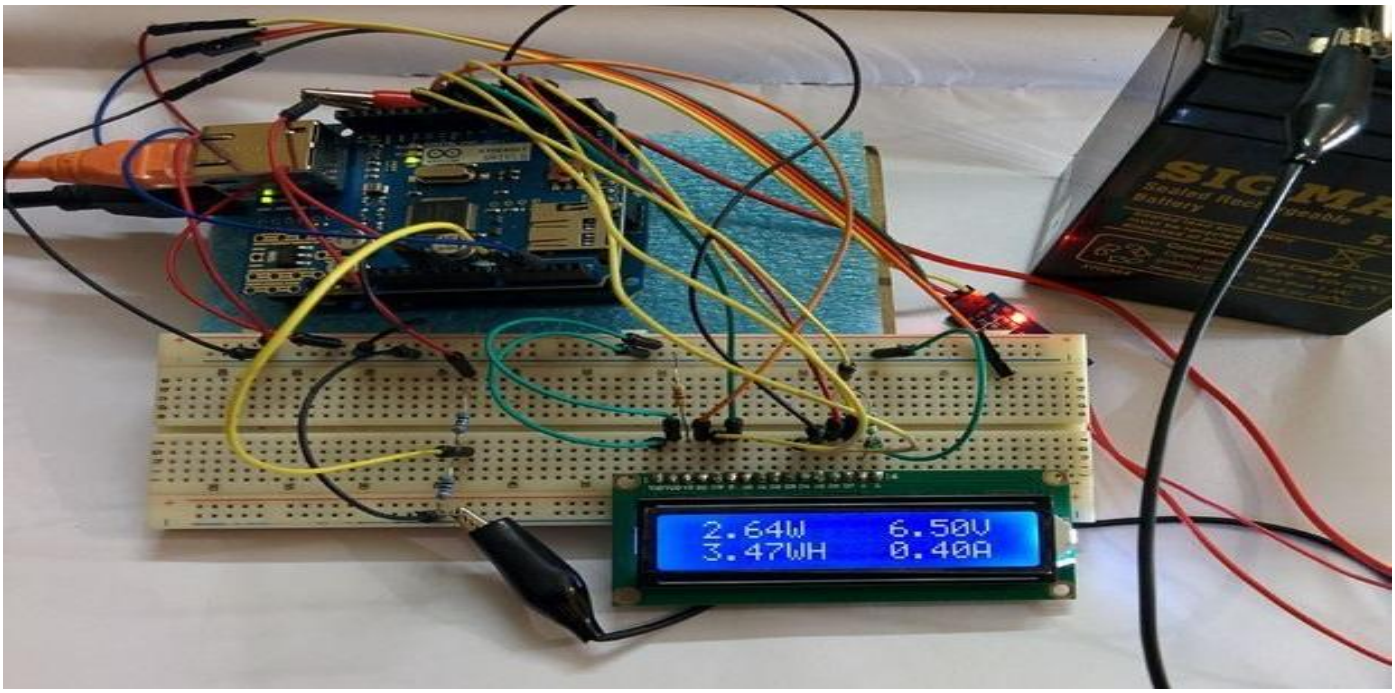
Course Name : Principles of Compiler Construction
Class : III B.Tech. II Sem
Teacher : Mrs. J S RADHIKA
Activity : Chart work
Title : Phases Of Compiler

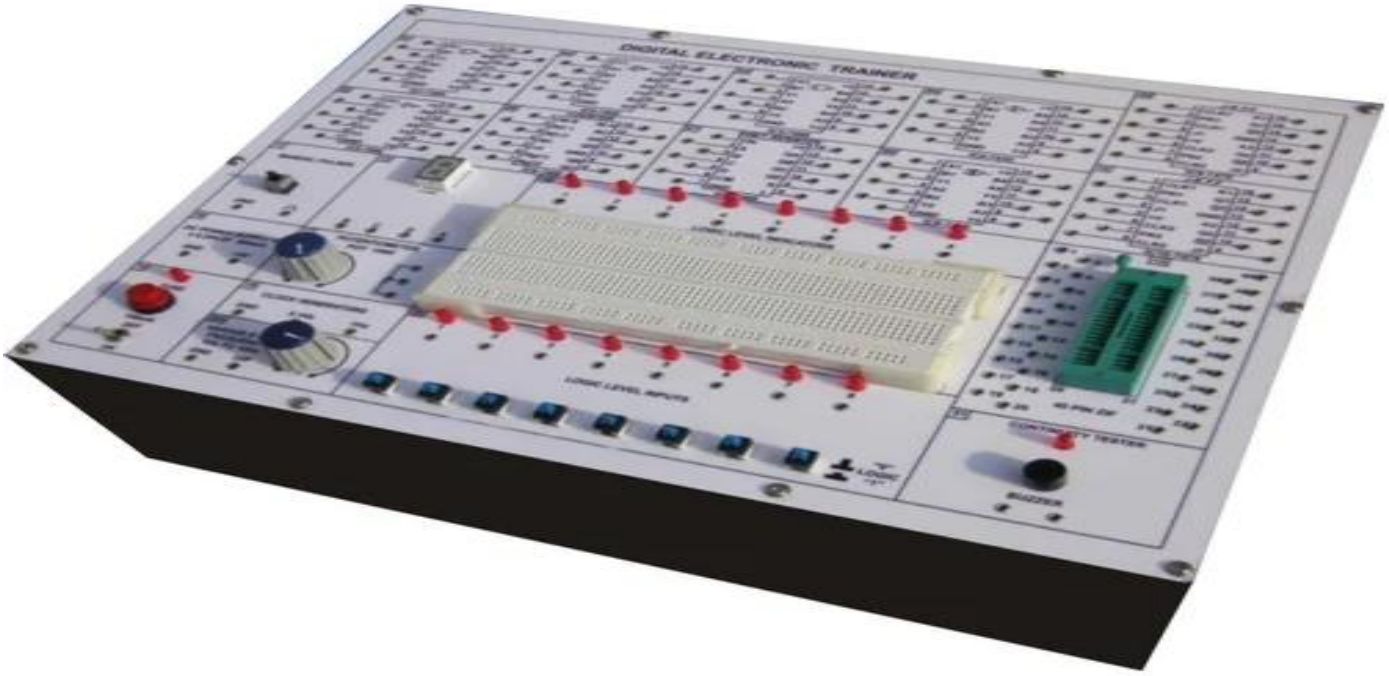
Course Name : Information Security
Class : IV B.Tech. I Sem
Teacher : Mrs. J S RADHIKA
Activity : Chart work
Title : Network Security Model

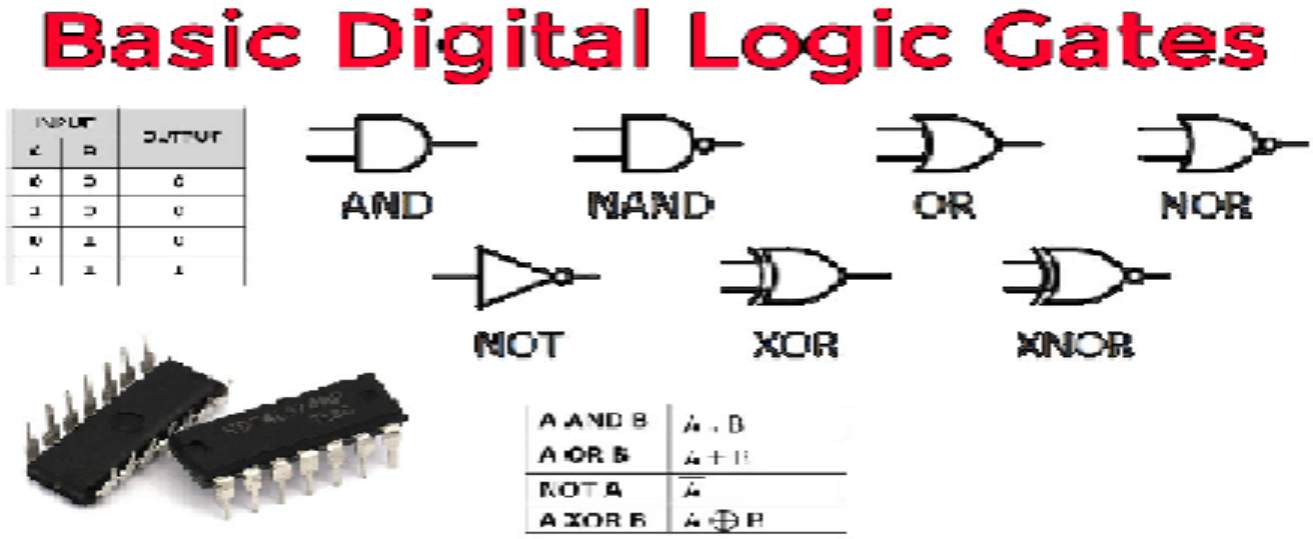


Course Name : Java Programming
Class : II B.Tech. II Sem
Teacher : Mr. Shek Shakeel
Activity : Poster Making
Title : Java Programming

Course Name: Digital Electronics
Class: II B.Tech. I Sem
Teacher: Mr. Venu
Activity : Working Models

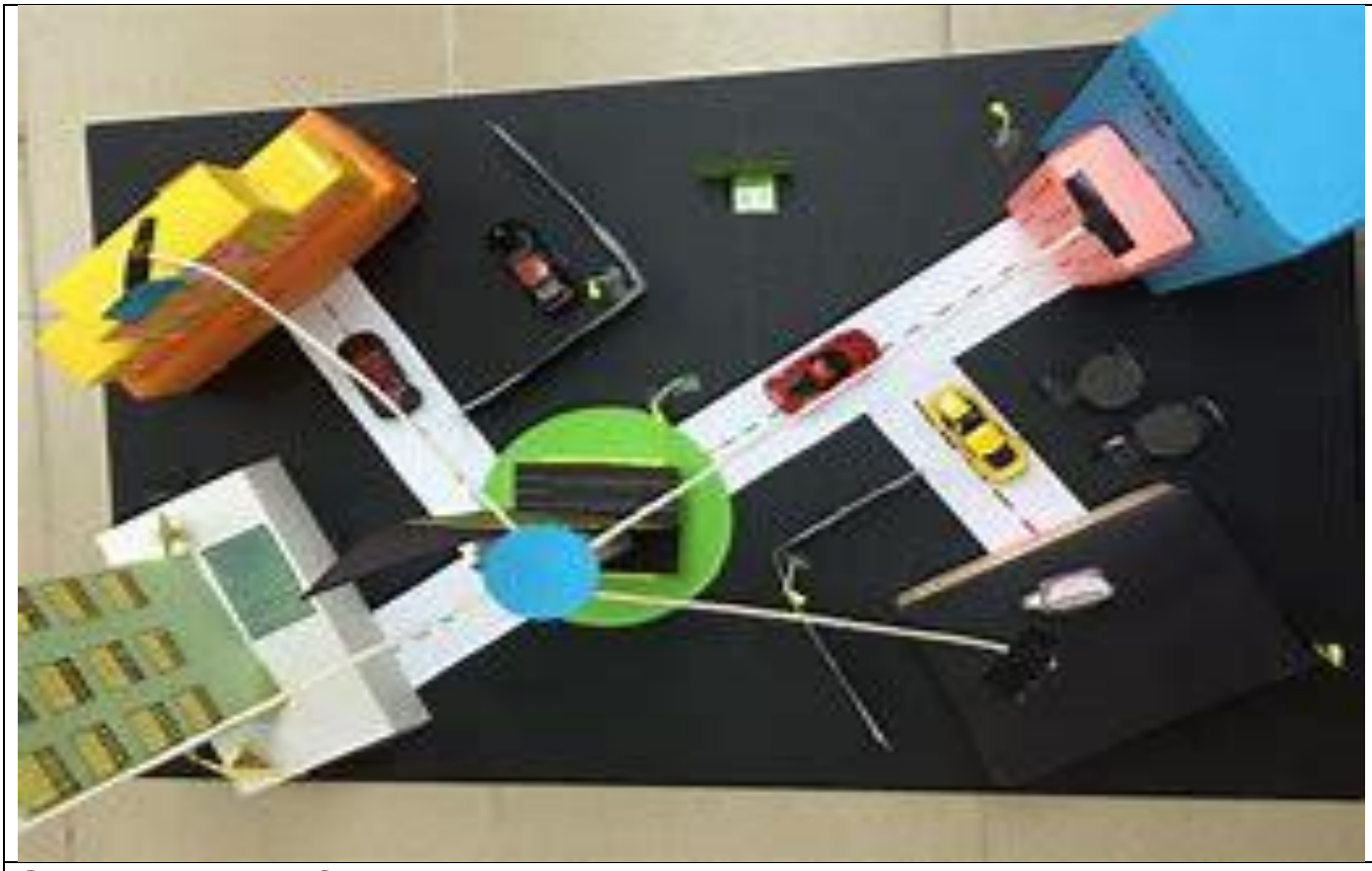






In the course, Digital Logic Design, while explaining about the basics of logic gates and its functions to the students of II Year CSE, the physical device of Logic Gates Trainer Kit was demonstrated to the students to get them a better understanding about the working of the gates and its Truth Table. Similarly the students also practiced with trainer kit to experience practically how the gates are to be operated and also verified the Logic gates Truth Table.

Course Name: Computer network
Class: III B.Tech. I Sem
Teacher: Mrs Varsha Reddy
Activity : Working Models



Course Name: Data Structures
Class: II B.Tech. I Sem
Teacher: Mrs. S. Geetha
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	Linked list	Introduction to Linked List - YouTube
2	2	Hash Table&Hash Function	Hash Tables and Hash Functions - YouTube
3	3	AVL Tree	AVL Tree Animations | Data Structure | Visual How - YouTube
4	4	Merge Sort	Merge Sort | Manim Animation [4K] - YouTube
5	5	Boyer moore algorithm	BOYER MOORE ALGORITHM FOR PATTERN MATCHING - YouTube

Course Name: Operating System
Class: II B.Tech. II Sem
Teacher: Dr. P. Epsiba
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	Structures of OS	https://www.youtube.com/watch?v=XXPBl20J22w
2	1	System Calls	https://www.youtube.com/watch?v=lhToWeuWWfw
3	1	Operating System Services	https://www.youtube.com/watch?v=TQWERtMoKbI
4	2	fork() and exec() System Calls	https://www.youtube.com/watch?v=IFEFVXvjiHY
5			
6	2	Priority based scheduling algorithm	https://www.youtube.com/watch?v=yKD3pcFvGmY&list=PLBlnK6fEyqRitWSE_AyyySWfhRgyA-rHk&index=11
7	2	Round Robin Scheduling algorithm	https://www.youtube.com/watch?v=7TpxxTNrcTg&list=PLBlnK6fEyqRitWSE_AyyySWfhRgyA-rHk&index=15
8	3	Process Management	https://www.youtube.com/watch?v=OrM7nZcxXZU
9	3	Semaphores	https://www.youtube.com/watch?v=LIzTbA3cAWY
10	3	Deadlock	https://www.youtube.com/watch?v=MYgmmJJfdBg
11	3	Deadlock Handling Methods	https://www.youtube.com/watch?v=OnyOoF_L7zw
12	4	Logical Vs Physical Address	https://www.youtube.com/watch?v=j9rxq-212eU
13	4	Paging	https://www.youtube.com/watch?v=MZvXqIkev7A
14	4	Paging Hardware For Paging Technique In Os	https://www.youtube.com/watch?v=KvqetrhakpY
15	4	Segmentation	https://www.youtube.com/watch?v=vzbcrCRslng

Course Name: Computer Networks
Class: III B.Tech. I Sem
Teacher: Mrs. S Varsha Reddy
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	The TCP/IP reference models	The TCP/IP Protocol Suite - YouTube
2	2	Error detection and correction	Error Detection - YouTube
3	3	Quality of Service	Quality of Service (QoS) | Flow Characteristics | Reliability | Delay | Jitter | Computer Networks - YouTube
4	4	TCP and UDP protocols	TCP vs UDP Comparison - YouTube
5	5	SNMP	SNMP - Simple Network Management Protocol - YouTube

Course Name: Web Technologies
Class: III B.Tech. I Sem
Teacher: Mrs. J Sasirekha
Activity : Animated Videos

S.No.	Unit	Topics	You tube links for Animated Videos for Operating Systems
1	1	String operators	2. What is data? Different types of data? Structured | Semi-structured | Unstructured data - YouTube
2	2	XML	What is XML | XML Beginner Tutorial | Learn XML with Demo in 10 min - YouTube
3	3	Lifecycle of a servlet	Life Cycle Of A Servlet - 5 Stages with detailed explanation | Web Technologies | - YouTube
4	4	JSP Processing,	JSP Tutorial | Life cycle of JSP | Advanced Java | Mr.Venkatesh - YouTube
5	5	Javascript	JavaScript Animation Tutorial | Animation In JavaScript | JavaScript Tutorial | Simplilearn - YouTube

Course Name: Computer Organization and Microprocessor
Class: II B.Tech. I Sem
Teacher: Mrs. Y. Harathi
Activity : Role play

Students role-play parts of a digital computer to accomplish a given task, and follow a given set of rules (their program). Student roles include: a processor, a cache memory controller, main memory, mass storage devices, system buses and input/output devices. Student activities include displaying a multimedia movie, exploring cache memory, and processing an image. Preliminary testing indicates that the Classroom Computer allows students to understand the basic operations of a digital computer

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DEPARTMENT OF INFORMATION TECHNOLOGY

INDUSTRIAL VISITS
(A.Y: 2023-24)

S.No.	Date of Visit	Year/Sem	Name of the Industry Visits	No. of Students
1.	26.04.2024	IV/ II	**CAPGEMINI**	50

INDUSTRIAL VISITS - PHOTO

Industrial Visit - CAPGEMINI, Hyderabad

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DEPARTMENT OF INFORMATION TECHNOLOGY

Simulation Tools And Virtual Labs
(A.Y: 2023-24)

S.No.	YEAR/SEM	LAB CODE	NAME OF THE LABORATORY	SOFT WARE	VIRTUAL LABS LINK	DURATION
1.	II/I	R22CSE2126	Data Structures Lab	Turbo C	https://ds1-iiith.vlabs.ac.in/List%20of%20experiments.html	5 Sessions
2.	II/I	R22ECE2126	Digital Electronics Lab	-	https://dec-iitkgp.vlabs.ac.in/List%20of%20experiments.html	5 Sessions
3.	II/II	R22CSE2226	Operating Systems Lab	Turbo C	https://www.cse.iitb.ac.in/~mythili/os/	3 Sessions
4.	II/II	R22CSI2228	Java Programming lab	Java Developer Kit	https://java-iitd.vlabs.ac.in/	3 Sessions

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DEPARTMENT OF INFORMATION TECHNOLOGY

Collaborative Learning Model
(A.Y: 2023-24)

OBJECTIVE:

Learn how to work cooperatively and support each other. Develop effective teamwork and communication (including interpersonal and cross cultural awareness) skills. Assimilate multiple views to deepen knowledge and promote critical thinking. Foster individual accountability to the team.

Role of Teachers:

Group the students to perform the given task. Framing assignments or group activities for the students that improve their creative and soft skills. Giving feedback to student for their improvement..

1. Group Assignments
2. Students Seminar
3. Team collaboration in practical session

GROUP ASSIGNMENTS

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DEPARTMENT OF INFORMATION TECHNOLOGY

ASSIGNMENT -2

YEAR / SEM: III YEAR / I SEM **A.Y:2023-2024**

SUB.CODE/NAME: R20CSE2207 / SOFTWARE ENGINEERING **Date: 25.09.2023**

Batch. No	Assignment Questions	CO's	Register Number
1.	1. What is software architecture? 2. List the guidelines for data design? 3. Define transform mapping 4. Explain design process and design quality in detail? 5. Explain in detail about RMMM and RMMM Plan?	CO4 CO5 CO4 CO6 CO6	21D41A1201 TO 21D41A1205

2.	1. List the architectural styles? 2. Define the advantages of horizontal partitions? 3. Distinguish coupling and cohesion with an example? 4. Describe integration testing? 5. Explain in detail art of debugging process	CO4 CO4 CO5 CO4 C05	21D41A1206 TO 21D41A1210
3.	1. What is a metric? 2. Describe process assessment? 3. Explain in detail metrics for analysis model? 4. Describe Risk Projection 5. Discus about Reactive vs. Proactive Risk strategies?	CO6 CO6 CO5 CO6 CO5	21D41A1211 TO 21D41A1215
4.	1. What is architectural design 2. Define Quality? 3. Discus any four useful indicators for software quality? 4. Explain in detail about software Risk 5. What are the guidelines to be applied when we collect software metrics? Explain the metrics for software measurement.	CO4 CO4 CO5 CO6	21D41A1216 TO 21D41A1220
5.	1. Define software measurement 2. What is the purpose of software testing? 3. Differentiate between Risk projection and Risk refinement. 4. Differentiate between White-box testing and Black-box testing 5. Write a short note on Risk refinement, mitigation, monitoring and management	CO4 CO4 CO5 CO4 CO5	21D41A1221 TO 21D41A1225
6.	1. Define RMMM? 2. Describe few words about black box testing? 3. A. List the metrics for design model? B. List the software measurement? 4. Explain in detail software tools for project & product metrics 5. Discus any four useful indicators for software quality.	CO6 CO5 CO5 CO6	21D41A1226 TO 21D41A1230
7.	1. Discuss about Quality concepts. Write a short note on Software Quality Assurance? 2. Explain architectural styles and architectural patterns 3. What is meant by risk estimation? 4. What is Debugging? Discuss the Debugging strategies? 5. State the guidelines for formal technical reviews.	CO4 CO5 CO6 CO5 CO5	21D41A1231 TO 21D41A1235
8.	1. List the software Risks 2. Define the advantages of function oriented metrics	CO5 CO4	21D41A1236 TO

	3. What do you mean by Risk Projection. 4. Write metrics for Source code and Design model 5. What is a software review? Discuss in detail about software review	CO5 C06 CO6	21D41A1240
9.	1. Define Risk management? 2. Differentiate between White-box testing and Black-box testing. 3. Discuss Metrics for Software Quality 4. Discus any four useful indicators for software quality 5. What is meant by risk estimation?	CO4 CO4 CO5 CO4 CO5	21D41A1241 TO 21D41A1245
10.	1. Describe few words about white box testing 2. Define measure, metric and indicator. 3. Explain RMMM plan 4. Write ISO 9000 quality standards. 5. Explain Reactive vs Proactive risk strategies.	CO4 CO5 CO6 CO5 CO6	21D41A146 TO 21D41A1250
11.	1. Write about quality concepts? 2. Explain about risk refinement? 3. Explain about system testing? 4. Define class diagram, sequence diagram, collaboration diagram? 5. List the design concepts?	CO4 CO4 CO5 CO5 CO5	21D41A1251 TO 21D41A1255
12.	1. Explain Component diagram, use case diagram? 2. Explain metrics for Source code? 3. Define test strategies for conventional software? 4. Define RMMM, RMMM plan? 5. Explain design concepts in detail?	CO4 CO4 CO5 CO4 CO5	21D41A1256 TO 21D41A1260
13.	1. State the guidelines for formal technical reviews 2. What is a process pattern? Describe the template of a process pattern with an Example? 3. Discuss about validation testing and system testing? 4. What is Debugging? Discuss the Debugging strategies? 5. What is design process and design quality?	CO4 CO4 CO4 CO3 CO4	21D41A1261 TO 21D41A1265
14.	1. Why Risk Refinement is needed?? 2. Why test strategies are needed for Conventional Software? 3. Discuss ISO 9000 Quality Standards in detail? 4. List Metrics for Testing? 5. Discuss about Quality concepts. Write a short note on Software Quality Assurance?	CO6 CO4 CO4 CO4 CO5	21D41A1266 TO 21D41A1269

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DEPARTMENT OF INFORMATION TECHNOLOGY

ASSIGNMENT - 1

YEAR / SEM: III YEAR / I SEM **A.Y:2023-2024**

SUB.CODE/NAME : (R20CSE3113) PRINCIPLES OFPROGRAMMING LANGUAGES

Date: 25.09.2023

Batch. No	Assignment Questions	CO's	Register Number
1.	1.Explain the compilation process? 2.Explain various programming paradigms? 3. Write the disadvantages of Aliasing? 4.List of the language categories? 5.Define imperative languages	CO1 CO2 CO3 CO1 CO2	21D41A3301 TO 21D41A3305
2.	6.Define the parse tree? 7.Define the synthesized attributes? 8.Define the token? 9.define the EBNF with an example? 10.Explain the formal methods of BNF	CO1 CO2 CO3 CO1 CO2	21D41A3306 TO 21D41A3310
3.	11.Expalin the Reasons for studying principles programming languages? 12.Write about the Grammar? 13.Write the general problem of describing syntax? 14. Solve a parse tree and leftmost derivation for the statement: A=(A+B)*CGiven grammar is: → = → A/B/C → + / → * / → () / (applying) 15. Describe the basic concept of denotational semantics?	CO1 CO2 CO3 CO1 CO3	21D41A3311 TO 21D41A3315

4.	16. Explain Named Constants? Compare the design issues related to constants in any two programming language? 17. Define mixed mode assignment statement? 18. Define expression? Give example? 19. Define Type Checking and Strong Typing? 20. State the design issues of selection statements	CO3 CO2 CO1 CO2 CO2	21D41A3316 TO 21D41A3320
5.	21. Write the general problem with static scoping? 22. How is a reference to a non-local variable in a static scoped program connected to its definition? 23. Define data Type? Explain About Primitive and non-primitive data type? 24. Discuss unconditional statement? Give examples? 25. Define a pointer and with example?	CO3 CO2 CO3 CO2 CO2	21D41A3321 TO 21D41A3325
6	26. Write a data type and What are types? 27. Illustrate the example of Regular Expression? 28. Write about overloaded Subprograms? 29. Discuss object oriented features, programming features in smalltalk? 30. Discuss basic elements of prolog?	CO3 CO2 CO2 CO3 CO1	21D41A3326 TO 21D41A3330
7.	31. Explain about the mixed mode assignment? 32. Explain various data types supported in python? 33. Explain about types of assignment statements? 34. Discuss the design issues for subprograms and functions? 35.Discuss about the Ambiguous grammar?	CO3 CO2 CO1 CO2 CO2	21D41A3331 TO 21D41A3335
8.	36. Discuss about the un Ambiguous grammar? 37. Define the example Ambiguous grammar? 38.Discuss about the un-Ambiguous grammar with an example? 39.Define the top-Down parse tree? 40). What are the two kinds of abstraction in programming languages?	CO2 CO2 CO3 CO1 CO1	21D41A3336 TO 21D41A3340
9.	41. Discuss about the Parent Attribute with an	CO2	21D41A3341

	example? 42. Discuss about the Synthesized attributes with an example? 43. Define the Child attributes with an example? 44. Discuss about the BNF ? 45.Define the EBNF notation?	CO1 CO3 CO2 CO2	TO 21D41A3345
10.	46. Discuss about the program of ALGOL-68? 47. Discuss about the ADA program? 48.Explain the features of COBOL? 49. Define the Features of FORTRAN? 5 50. Define the names and variable's concepts?	CO1 CO2 CO3 CO2 CO1	21D41A3346 TO 21D41A3350
11.	51.Write the Pascal programming applications? 52. Discuss about the compound statements? 53. Discuss about the dynamic binding? 54. Discuss about the Applications of C++ language? 55. Explain the applications ALGOL-60?	CO1 CO2 CO3 CO2 CO3	21D41A3351 TO 21D41A3355
12.	56.Describing the Meaning of Dynamic semantics? 57.Explain about the Attribute grammar? 58. Discuss about the Associativity of operations? 59.Explain the static binding? 60. Define the type checking and named constants	CO2 CO2 CO2 CO1 CO3	21D41A3356 TO 21D41A3360
13.	61.Define the formal methods of describing syntaxes? 62.Explain the general problem Describing syntax? 63. Define the type compatibility? 64. Explain about the operational semantics? 65. Define the Axiomatic semantics	CO2 CO1 CO2 CO3 CO1	21D41A3361TO 21D41A3364
14.	66.Define the heap management? 67. Discuss about the Evaluation of Axiomatic semantics? 68. Explain the grammar symbols? 69. Define context free grammar? 70. what are the applications of type checking?	CO2 CO2 CO3 CO2 CO1	22D453301TO 22D453305

STUDENTS SEMINAR

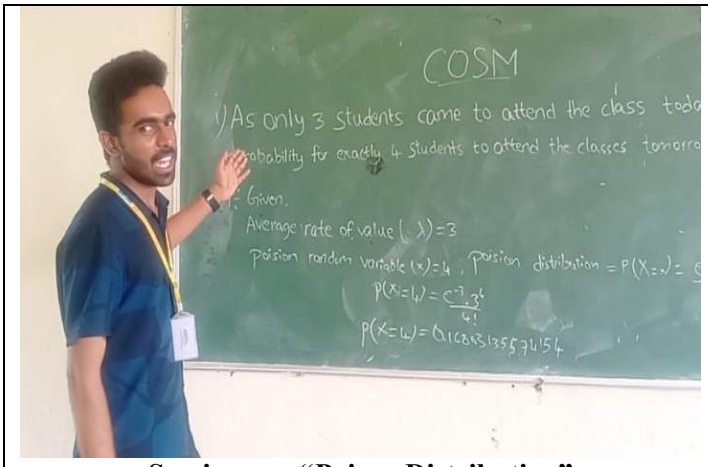
Semester - I

S.No.	Year/ Sem	Roll. No.	Name Of The Student	Topic
1.	II/I	22D41A1226	K. HARIKA	Binary Tree
2.	II/I	22D41A1243	M. SRAVANTHI	Priority Interrupt
3.	II/I	22D41A1235	K. PRANAY	Poison Distribution
4.	II/I	22D41A1215	C. SUPRIYA	1X2 De-Multiplexer
5.	III/I	21D41A1213	B. ANUSHA	Building Blocks of UML
6.	III/I	21D41A1208	B. HINDU REDDY	Java Script
7.	III/I	21D41A1264	TIRTH PATEL	Normalization
8.	III/I	21D41A1204	A. SADHANA	Process Models
9.	III/I	21D41A1246	M. TAJUDDIN	Neural Network
10.	III/I	21D41A1261	T. SHALINI	Consequences of Bugs
11.	IV/I	20D41A1225	K. RATNA PRAKASH RAJ	Seminar on Edge Computing
12.	IV/I	20D41A1219	K. HARIKA	Seminar on IOT
13.	IV/I	20D41A1249	S. RAJA SREE	Seminar on Wireless Sensor Networks
14.	IV/I	20D41A1226	K. RAJU	Seminar on IOT based Smart Irrigation System

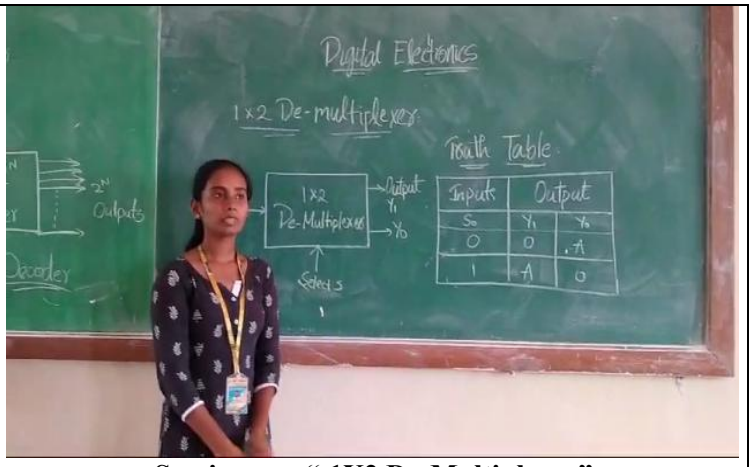
Sample Photos

Seminar on "Binary Tree"

Seminar on " Priority Interrupt"



Seminar on "Poison Distribution"



Seminar on " 1X2 De-Multiplexer"

Seminar on Building Blocks of UML

Seminar on Java Script

Seminar on Normalization

Seminar on Process Models

Seminar on Neural Network

Seminar on Consequences of Bugs

Seminar on Edge Computing

Seminar on IOT

Seminar on Wireless Sensor Networks

Seminar on IOT based Smart Irrigation System

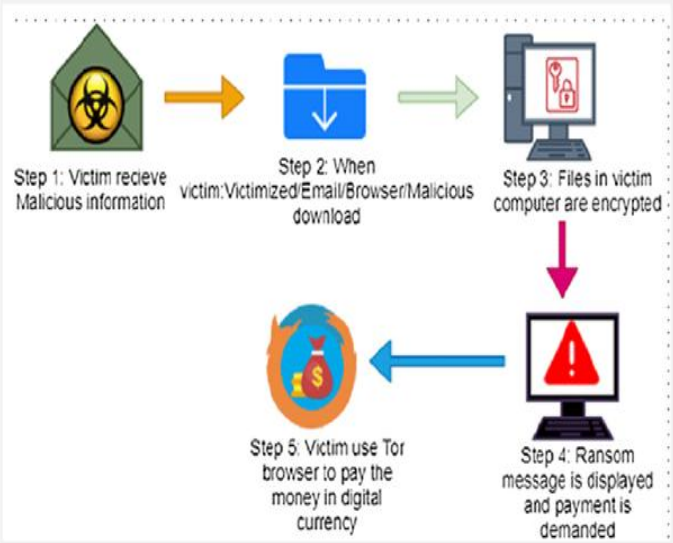
Class : IV B.Tech. I Sem
Teacher : Ms. J. Radhika
Activity : Students Seminar
Student Name: K. Raju (20D41A1226)
Topic : Ransomware

Definition of Ransomware?

- It is a type of malware that restricts access to the infected computer system way , and demands that the user pay a ransom to the malware operators to remove the restriction.
- This malware locked all the data in the computer and displayed a message.
- Demanding a ransom in exchange to unblock the data
- Malware : It is a file typically delivered over a network, that steals any behavior an attacker wants.

History

- The first known ransomware was the 1989 "AIDS" trojan (also known as " PC Cybrog ") written by Joseph Popp.
- The first documented ransomware, AIDS Trojan or PC Cyborg, was delivered at the World Health Organization's AIDS conference in 1989 using floppy disks, demanding a payment to be sent to a postal office box in Panama. This malicious code was not encrypting the files content as we know it today, but the filenames only.



Bitcoins

- Bitcoins are a form of cryptocurrency , meaning they do not have a physical representation.
- They are stored in anonymous digital wallets.
- They can be transferred anywhere in the world via the Internet . They can be paid from anywhere ,to anywhere with total anonymity.

Impact of this attack

- WannaCry shutdown many businesses across the globe , including the European manufacturing plants of automative giants Nissan.
- $1700 Amount paid by the Hollywood Presbyterian Medical center in 2016 to unlock files and return to business as usual.
- 209 million Amount paid in 2016 to cyber-criminals using ransomware.

What a victim should do?

- Never pay Ransom.
- The best option is to restore the data from backup.
- Try decrypting the files using recovery tools.
- Work with data recovery experts who can reverse engineer malware and help gain access to your data.
- Some of the recovery tools are:
- ComboFix (freeware)
- HijackThis (freeware),
- SuperAntiSpyware ($30)

Types of Ransomware Attacks

Locker Ransomware

- This malware prevents basic computer processes from functioning.
- For Example ,you may be denied access to the desktop ,while the mouse and keyboard are partially disabled.

Crypto Ransomware

- Here the goal is to encrypt your vital data , such as documents ,photos and videos, while not interfering with computer functionality.
- Crypto developers frequently include a countdown to their ransom demand.

How to avoid Ransomware

- Avoid to click the unknown emails.
- Don't download any unknown applications.
- Don't click on suspicious links offering gifts.
- Don't provide confidential information through internet.
- Keep update the system backup for the recovery.
- Update anti-virus software .
- Spread awareness among people to identify scams,malicious links and emails.

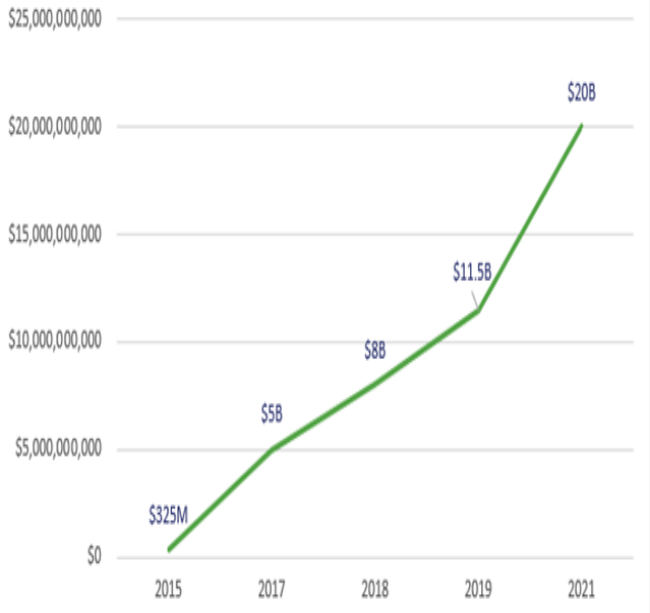
Companies effected by Ransomware

Some fact About Ransomware

~Typically ransomware software uses RSA 2048 Encryption to encrypt files.

~An average desktop computer is estimated to take around 6.4 quadrillion years an RSA 2048 Key.

Predicted Ransomware Damages 2015-2021



Recent Cases

->Recently , the All India Institute of medical Sciences(AIIM), the country's foremost healthcare institution ,reported a large cyber hacking as the result of a ransomware attack.

->The cyber-attack caused a server outage , which disrupted daily hospital operations like appointments , patient registration , discharge ,and more.

Conclusion

- When it comes to malware attacks , knowledge is the best possible weapon to prevent them .**Be careful what you click!!**.
- Preventive measures should be taken before ransomware establish strong hold . Keeping all the software updated and getting latest security updates might help to prevent the attack.

TEAM COLABORATION IN PRACTICAL SESSION