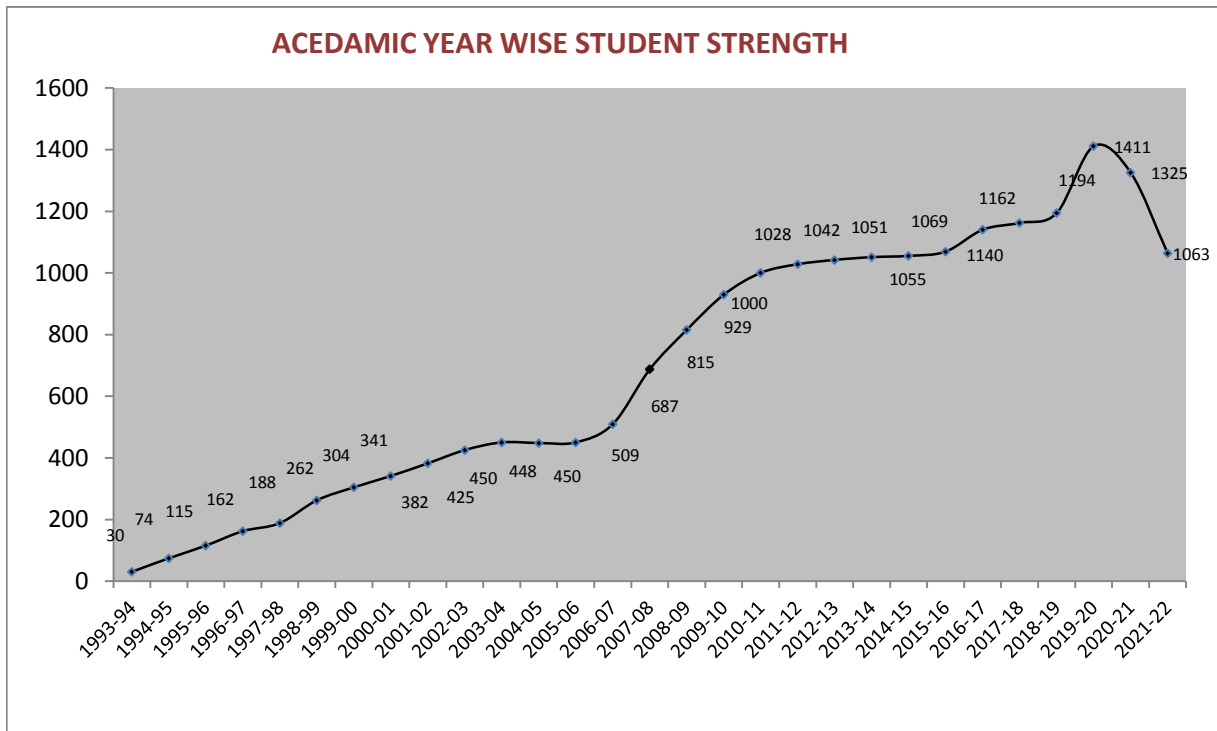


- [+ About Us](#)
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- [+ Student Progression](#)
- [+ Alumni](#)
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- [+ Student Zone](#)
- [+ Departmental Activities](#)



↑ About Us

The **Department of Computer Science**, established in the academic year 1993-1994 as a **first** self-funding course by a visionary and an ardent promoter of academic culture and discipline **Sri.P.L.N. Reddy**, with 600 sft. Laboratory and 8 systems with an intake of 30 learners, has now developed into a gigantic edifice of a full-blown competently equipped department (3800 sft., laboratory, 150 systems LAN, 4 servers - Linux & windows 2003, 10Mbps BSNL Fiber Optic Link imparting value based quality technical education to more than 1000 learners.



The faculty has been adequate, competent, enthusiastic and committed to train the students in the core areas of Computer Science in a learner centered approach. It is a matter of pride that momentous number of students confidently competed with the technical peers and got through selections (campus & off-campus) for Mahendra Satyam Computer Services Ltd., Wipro Academy of Software Excellence (WASE), Infosys, IBM, TCS, CTS, InfoTech Enterprise Ltd., Jeeva InfoTech Ltd., RR Technologies, Tech. Mahendra and Aditya Software Solutions etc., in last 22 years.



The department has organized a Certificate Course in Computing (**CCIC**) for 16 days (32 hours) to the 30 staff members (both teaching and non-teaching) of Sri Sai Baba National Degree College. The participants are able to acquire basic computing skills with these practical intensive sessions. The great success of this certificate course is a significant achievement of the department.

The department caters to the academic needs of over 1200 learners from six different combinations viz., B.Sc., Mathematics, Physics, Computer science (**MPCs** - from 1993-94), Mathematics, Statistics,

WORK LOAD			
THEORY		PRACTICALS	
B.Sc.,	B.Com.(CA) & BBA	B.Sc.,	B.Com.(CA) & BBA
46	22	66	32

Computer science (**MSCs** – from 2003-04), Mathematics, Electronics, Computer science (**MECs** - from 2003-04), **B.Com.**, Computer Applications (from 1996-97), **BBA** (from 2016-17) and Mathematic, Industrial Electronics, Computer

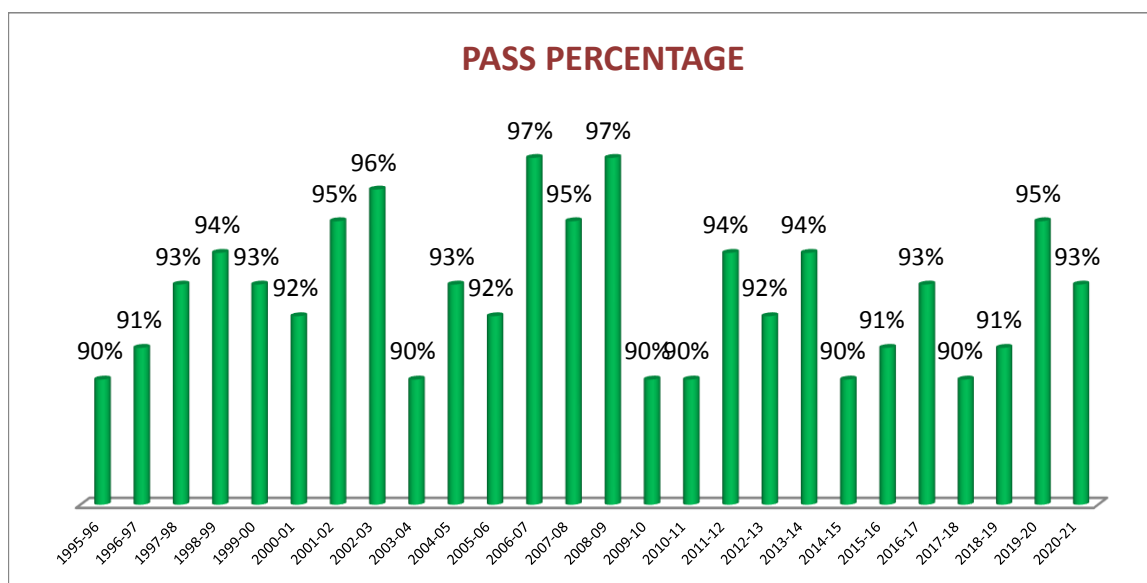
Science **MIeCs** (from 2017-2018). The admission of students to these courses has been purely on the basis of merit in the qualifying examination. The students come both from the rural and urban areas. The majority of students who hail from the rural areas are with Telugu medium background. The ratio of boys and girls is 40:60. The language skills and basic domain knowledge vary according to the background of the learner. From 2020-2021, the admission of students is through OAMDC.

As an affiliated college up to the academic year 2004-05, the department adapted the curriculum as per instructions of Sri Krishnadevaraya University, Anantapur. After attaining Autonomy, which is proved to be a symbol of great success in the field of higher education, in 2005-2006; the department independently framed the curriculum for all semesters in the Board of Studies meetings after through discussions, with the result, the department has evolved its own system of teaching and evaluation. The syllabus was framed by considering Andhra Pradesh State Common Core syllabus as a base to avoid vertical mobility issues and in addition, the BOS included key topics in each paper to benefit the student community. The faculty of the department played a significant role in designing the curriculum.



College adopted CBCS from the academic year 2015-2016 as per the guidelines of UGC. CBCS provides an opportunity for the students to choose courses from the prescribed core, elective/minor or skill based courses. CBCS will bring uniformity in evaluation system. The student's performance in examinations will be evaluated on a 10 point scale of Cumulative Grade Point Average (CGPA) based on UGC guidelines. The department offering two skill enhancement courses one for core students and the other for non-computer students. From the academic year 2017-18, cluster electives included in CBCS frame as per the guidelines of APSCHE, which allows a student to choose three papers from the domain of their own interest. The department has introduced cluster elective papers as per the industrial requirements. From the academic year 2021-21, the department adopted the revised CBCS curriculum with necessary modifications.

The percentage of pass outs has been continuously high (90%+) from the inception of the department.



In addition to the Central library, the department has more than 450 books and 5 Magazines in the departmental library, which is accessible to the learners during all working hours for reference. The department known for its abilities in providing MOOCs (NPTEL videos, SWAYAM, Hindu Step Test, EPG pathshala, MIT course etc.) and E-resources on all core computing topics to the student community during their lab hours through departmental intranet. Besides the regular lecture methods, the department is making use of classroom technology appropriately to provide

↑ unambiguous concepts and understanding on core computing topics to the student community.

The teachers of the department for all-time involve actively in improving presentation and articulation skills of students through seminars, group discussions code contests and quiz competitions etc.,. They also guide the students to undertake real-time projects to develop their research abilities and skills of interpretation. The teachers of the department frequently take up remedial coaching classes and counseling sessions to the students in respective subjects to improve their performance in the semester end examination. The department has also been coordinating Indira Gandhi National Open University Study Center administrative and student counselling activities since 1997 to till date. The department is also providing support and coordination to Career Development Cell for smooth handling of their activities.

Further, the Department is also involved actively for all these years in planning, coordinating and supervising all activities related to the design, development and implementation of mission-critical college information systems for student result processing, college library, college website and other administrative activities. The department is also responsible for maintaining, supporting, and upgrading existing systems and soft-ware applications.

MOU

Collaborative program with **RR Technologies**, Texas (owned by SSBN school alumni) to give an opportunity to SSBN students to work on projects and finding solutions to real world problems, while helping RR Technologies with its innovation and hiring.





- **SCOPE OF THE MOU**

- College to industry knowledge gap identification and collaborate to narrow it
- Conducting research
- Conducting field surveys and collecting data
- Developing Proof of Concepts
- Developing frameworks
- Data Analysis
- Development and fine tuning of algorithms
- Product Feature Development

Cooperative program with **Madanapalle Institute of Technology & Science (MITS)** to facilitate the exchange of professional staff members, students and academic information between the Departments.



- **SCOPE OF THE MOU**

- Exchange of information and academic materials.
- Organization of 'Faculty Development & Symposium Programs' as well as exchange of information about conferences, workshops, and mutual assistance to participate in them.
- Supporting activities/services such as training and orientations programs.
- Internship programs to the students (graduate).

M MURALI MOHAN REDDY



Department	Computer Science
Designation	Assistant Professor
Qualifications	M.Sc., M.Phil., PGDCSA
Email	marapamurali@gmail.com
Telephone	+91-9449465114

Overview

Sri. M Murali Mohan Reddy, Head of the Department with 28 years of teaching experience, is responsible for the powerful progress of the Department. Exhibiting enormous commitment and sincerity, he has trained the students on the core areas of Computer Science in a learner-centred approach. Skilled in adapting to students' diverse learning styles. Efficiently guided UG and PG students through their project work. Motivated students to come up with innovative ideas for project work.

He has published 3 research papers in national journals and presented papers at national seminars/workshops.

He pursued Master of Philosophy from Madurai Kamaraj University. He completed his Master of Science (M.Sc.) from Sri Krishnadevaraya University. He completed Post graduate diploma in Computer Science Applications from Jawaharlal Nehru Technology University.

Areas of Teaching

Modern Database Management Systems, Data structures & Algorithms, Object oriented design methodologies, Web technologies, Python, Data Science, Operating Systems, Microsoft technologies SQL SERVER, System Analysis and Design, Computer Networking, Data Security.

Areas of Expertise

RDMBS SQL Server, Python, Microsoft Technologies VB.net, Crystal Reports, HTML5, jQuery, CSS and Python



Seminars / Conferences / Workshops / Symposia Participated

- Academia Digital Transformation Workshop
- National Workshop on Women Empowerment (NWE)
- National Conference on ICT Empowered Teaching, Learning and Evaluation.

Additional Responsibilities:

- As an additional controller responsible for result processing.
- Responsible for setting up an in house application for College Management System.
- Convener, Academic Schedule Committee, Hand book Committee, IQAC Committee, Remedial Coaching Committee
- Coordinator, Indira Gandhi National Open University Study Centre.



K DEVAKI MANI



Department	Computer Science
Designation	Assistant Professor
Qualifications	M.Sc.,(Maths), M.Sc.,(Computer Science), PGDCA
Email	k_devaki@yahoo.com
Telephone	+91 9441082240

Overview

Smt. K. Devaki Mani, Assistant Professor with 22 years of teaching experience, is specialized in teaching MDBMS, Cloud Computing, Python, E-Commerce, C, OS and Data Science. Participated in national seminars and workshops. She is dedicated and committed to her profession and immensely contributed to the academic growth and development of students. Efficiently guided UG students through their project work. Motivated students to come up with innovative ideas for project work.

She graduated from Master of Science in Applied Mathematics from Sri Krishnadevaraya University, Master of Science in Computer Science from Madurai Kamaraj University. She completed Post Graduate Diploma in Computer Applications from Sri Padmavati Mahaila ViswaVidyalayam.

Areas of Teaching

Modern Database Management Systems, C, C++, Java, Data structures & Algorithms, Object oriented design methodologies, Data Science, Principles of Algorithms and Operating Systems.

Areas of Expertise

RDMBS Oracle, Python, HTML5, C, C++, R

Seminars / Conferences / Workshops / Symposia Participated

- National Workshop on Women Empowerment (NWE)



- National Level Online Faculty Development Programme on Block chain Technology.
- National Level Online Faculty Development Programme on Python for Data Science.
- National Level Online Faculty Development Programme on Internet of things and its Applications.

Additional Responsibilities:

- Head, Career Development Cell
- Convener, Timetable Committee
- Member in Cultural Committee, Alumni Committee, WEC



S GURURAJA RAO



Department	Computer Science
Designation	Assistant Professor
Qualifications	M.C.A., M.Phil., M.Tech.,
Email	samji.guru04@gmail.com
Telephone	+91- 9440247673

Overview

Sri S Gururaja Rao has 22 years of teaching experience specialized in teaching Object Oriented Design Methodologies, Web technologies, Data Science. Participated in national seminars and workshops. Committed to his profession and immensely contributed to the commendable pass percentage of the students.

He pursued his Masters of Computer Applications (M.C.A) from Bharathiar University. He completed Master of Technology from Jawaharlal Nehru Technology University. He completed Master of Philosophy from Bharathiar University.

Areas of Teaching

Data structures & Algorithms, Object oriented design methodologies, Web technologies, Data Science, Data Science, R, System Analysis and Design, Computer Networking, Data Security

Areas of Expertise

Web technologies HTML5, CSS, jQuery, R, Java, and Computer Network

Seminars / Conferences / Workshops / Symposia Participated

- Academia Digital Transformation Workshop
- National Seminar on GST, Financial Market Services.
- National Seminar on Software Engineering.



- National Seminar on Networking.
- National Conference on ICT Empowered Teaching, Learning and Evaluation.
- National Level Online Faculty Development Programme on Blockchain Technology.

Additional Responsibilities:

- Additional Controller
- Member in Disciplinary Committee



M VISHNUVARDHAN REDDY



Department	Computer Science
Designation	Assistant Professor
Qualifications	M.C.A
Email	vishnuvardhan.m.reddy@gmail.com
Telephone	+91-834-140-8899

Overview

Sri M Vishnuvardhan Reddy has 12 years of teaching experience and specializes in teaching Object Oriented Design Methodologies, Java, Web technologies, Data Structures, Networking, and C. Committed to his profession and immensely contributed to the commendable pass percentage of the students. Guided the students in the performance of practical tasks, skill exercises and advised the students in their project work. Motivated and encouraged the students to participate in co-curricular and extra-curricular activities. Participated in Professional Development Activities, National level seminars and Workshops.

Areas of Teaching

Object oriented design methodologies, Java, Data structures & Algorithms, Web technologies, Microsoft technologies ASP.NET, C#.NET, SQL SERVER

Areas of Expertise

Microsoft Technologies ASP.NET, C#.NET, SQL SERVER, HTML5, jQuery, CSS, Java and Python

Seminars / Conferences / Workshops / Symposia Participated

- National Seminar on Dissemination of Geo-Spatial Technology for Development of Andhra Pradesh.
- National Level Online Faculty Development Programme on Block chain Technology.
- National Level Online Faculty Development Programme on Python for Data Science.



- National Level Online Faculty Development Programme on Internet of things and its Applications.
- National Level Online Faculty Development Programme on Innovations in Engineering Fields.
- National Level Online Faculty Development Programme on Machine Learning.
- National Level Online Faculty Development Programme on Cyber Security & Malware Analysis
- Faculty Development Programme on Latest Trends and Challenges in IT Industry.
- National level webinar on Vertis NetBackup Administrator (fundamentals).
- National level webinar on Digital Transformations in Software Development.

Certifications

- Introduction to IOT from Cisco Networking Academy.
- Python for Data Science from Cognitive Powered by IBM Developer Skills Network.
- Python 3.4.3 from Spoken tutorial, IIT Bombay,
- Python Programming from Andhra Pradesh State Skill Development Corporation (APSSDC).
- Data Analysis with Python from Cognitive Powered by IBM Developer Skills Network.
- Data Visualization Using Python issued by IBM

Additional Responsibilities:

- Member in Sports Committee
- Member in Career Development Cell



B ANITHA



Department	Computer Science
Designation	Assistant Professor
Qualifications	M.C.A, PGDCA
Email	anitha.ramanaidu@gmail.com
Telephone	+91- 9490044669

Overview

Sri B.Anitha has 5 years of teaching experience, are specialized in teaching Relational Databases, Business Analytics, C. Participated in national seminars and workshops. Committed to her profession and immensely contributed to the commendable pass percentage of the students.

She graduated from Sri Krishnadevaraya University with a B.Sc. in Computer Science. She pursued her Master of Computer Applications (M.C.A.) from Jawaharlal Nehru Technological University. She pursued PGDCA from Manipal Institute of Computer Education, Manipal.

Areas of Teaching

Relational Database Management Systems, Object oriented design methodologies, Business Analytics, Computer Networking.

Areas of Expertise

RDMBS Oracle, SPSS, Java, Business Analytics

Seminars / Conferences / Workshops / Symposia Participated

- National Workshop on Women Empowerment (NWE)



SUPPORT STAFF



Sri K. Prasanna Kumar
Programmer



M. Raghavendra Prasad Reddy
System Admin.



M. Venkata Ramudu
Attender



B. Vaideesh
Attender



**DEPARTMENT OF COMPUTER SCIENCE: SRI SAI BABA NATIONAL DEGREE COLLEGE
(AUTONOMOUS COLLEGE, AFFILIATED TO S.K. UNIVERSITY)**

3 year B.Sc. Course outline: Semester System (15 weeks = 90 teaching days per semester)

(I – IV Semester)

(w.e.f. 2021-2022)

First Semester – 100 +60 = 160 marks					Second Semester – 100 +60 = 160 marks				
Paper Title	Internal Assessment	External Assessment	Pass Marks	No. of teaching hours per week & Semester	Paper Title	Internal Assessment	External Assessment	Pass Marks	No.of teaching hours per week & Semester
Computer Fundamentals & Programming in 'C'	25	75	40% with 35% minimum in external examination	3 credits 4 per week 60 per Semester	Programming in Java	25	75	40% with 35% minimum in external examination	3 credits 4 per week 60 per Semester
PC Software (Microsoft/Open Office) & Programming in 'C' Lab	15	45		2 credits 1 session per week 15 per Semester (2 hours each)	Programming in Java Lab	15	45		2 credits 1 session per week 15 per Semester (2 hours each)
Third Semester – 100 +60 = 160 marks					Fourth Semester – 200 +120 = 320 marks				
Data Structures	25	75	40% with 35% minimum in external examination	3 credits 4 per week 60 per Semester	Operating Systems	25	75	40% with 35% minimum in external examination	3 credits 3 per week 45 per Semester
Data structures using Java Lab	15	45		2 credits 1 session per week 15 per Semester (2 hours each)	Operating Systems Lab	15	45		2 credits 1 session per week 15 per Semester (2 hours each)
					Modern Data Base Management System	25	75	40% with 35% minimum in external examination	3 credits 3 per week 45 per Semester
					DBMS – SQL&PLSQL lab	15	45		2 credits 1 session per week 15 per Semester (2 hours each)
					Any online Course offered by Government/Public agencies			Course completion certificate	2 credits (Extra)

☞ **Internal Assessment:** 25 marks (Average of one internal test and continuous evaluation through assignments, seminars and project)

☞ **Labs:** 3 demos + 10 experiments + 2 revision sessions = **(3+10+2=15);**



**DEPARTMENT OF COMPUTER SCIENCE: SRI SAI BABA NATIONAL DEGREE COLLEGE
(AUTONOMOUS COLLEGE, AFFILIATED TO S.K. UNIVERSITY)**

**3 year B.Com.(CA) Course outline :: Semester System (15 weeks = 90 teaching days per semester)
(I – IV Semester)**

(w.e.f. 2021-2022)

First Semester – 100 +60 = 160 marks					Second Semester – 100 +60 = 160 marks				
Paper Title	Internal Assessment	External Assessment	Pass Marks	No. of teaching hours per week & Semester	Paper Title	Internal Assessment	External Assessment	Pass Marks	No. of teaching hours per week & Semester
Fundamentals of Information Technology & Problem Solving in 'C'	25	75	40% in both	3 credits 4 per week 60 per Semester	Python Programming	25	75	40% in both	3 credits 4 per week 60 per Semester
PC Software (Microsoft/Open Office) & Programming in 'C' Lab	15	45	40% in both	2 credits 1 session per week 15 per Semester (2 hours each)	Python Programming Lab	15	45	40% in both	2 credit 1 session per week 15 per Semester (2 hours each)
Third Semester – 100 +60 = 160 marks					Fourth Semester – 200 +120 = 320 marks				
Paper Title	Internal Assessment	External Assessment	Pass Marks	No. of teaching hours per week & Semester	Paper Title	Internal Assessment	External Assessment	Pass Marks	No. of teaching hours per week & Semester
Modern Data Base Management Systems	25	75	40% in both	3 credits 4 per week 60 per Semester	E-Commerce and Web Designing	25	75	40% in both	3 credits 3 per week 45 per Semester
DBMS – SQL&PLSQL lab	15	45	40% in both	2 credit 1 session per week 15 per Semester (2 hours each)	HTML and CSS Lab	15	45	40% in both	2 credit 1 session per week 15 per Semester (2 hours each)

☞ Internal Assessment: 25 marks (Average of one internal test and continuous evaluation through assignments, seminars and project)

☞ Labs: 3 demos + 10 experiments + 2 revision sessions = (3+10+2=15)



I B.Sc. Computer Science / I B.Com (CA)

I SEMESTER

FUNDAMENTALS OF INFORMATION TECHNOLOGY & PROBLEM SOLVING IN C

(w.e.f 2021 -2022)

Unit I

(10 teaching hours – 17% weight-age)

Computer Fundamentals: Definitions: Computer, Hardware, Software– Computer system characteristics – Operating System - Types of OS - logical organization of digital computers – Input Devices, Output Devices, Storage Devices - Compilers and translators - High level and low level languages.

Network – Definition - Types of networks - **The Internet:** Internet History - The way the Internet works. **Electronic Mail:** E-mail, Advantages and Disadvantages.

Introduction to Computer Problem Solving:

Fundamental Algorithms: Introduction – Definition - Exchanging the values of two variables – Counting – Summation of Numbers.

Flowcharts: Introduction – Definition - Standard Flow chart symbols.

Unit – II

(14 teaching hours – 23% weight-age)

Introduction – ‘C’ Fundamentals: Importance of C – Sample ‘C’ program – Basic structure of ‘C’ program –**Constants, variables and Data types:** Character Set – C tokens – Keywords and Identifiers – Constants – Variables – Data types: Primary data types – Secondary data types - Enumerated Data Types – The typedef statement – Data Type conversions – Declaration of a variable – Assigning values to variables – defining symbolic constants.

Managing Input and Output Operations: Reading a character – Writing a character – Formatted input - Formatted output.

Operators and Expressions: Arithmetic, Relational, logical, assignment, Increment and decrement, conditional, bitwise and special operators - Arithmetic Expressions – Evaluation of Expressions – Precedence of Arithmetic operators –Type conversion in expressions.

Unit – III

(10 teaching hours – 17% weight-age)

Decision making and Branching: The if statement – the if else construct – Nested if statements – The else if construct – The switch statement – Boolean variables – The conditional operator – The GOTO statement.

Decision making and Looping: The while statement – The do statement – The for statement – Jumps in loops: The break statement – The continue statement.

Unit – IV

(14 teaching hours – 23% weight-age)

Arrays: Introduction – One-dimensional array – Two-dimensional array- Initializing Arrays — Multidimensional arrays - Handling of Character Strings.

User-Defined Functions: Introduction – Need for User-Defined Functions – The form of C functions – Returning values and their types – Calling a function – Category of functions – Handling of non-integer functions – nesting of functions – recursion – functions

Unit – V

(12 teaching hours – 20% weight-age)

Structures and Unions: Defining structure — Initializing structures – Array of structures- Arrays within structures, structures within structures – Structures and Functions – Unions – size of structures – Bit fields.

Pointers: Introduction – Understanding pointers – Accessing the address of a variable – declaring and initializing pointers – Accessing a variable through its pointer – Pointer expressions – Pointer increments and scale factor – Pointers and arrays – Pointers and character strings – Pointers and functions – Pointers and structures – Pointers on pointers.

Text Books:

1. Peter Norton’s Introduction to Computers TMH (4th edn.) 2001
2. How to Solve it by Computer – R.G. Dromey – PHI
3. Programming in ANSI C - E. Balaguru Swamy



I B.Sc., Computer Science

II Semester

PROGRAMMING IN JAVA

(w.e.f 2021-2022)

UNIT – I

(9 teaching hours – 15% weightage)

Fundamentals of Object-Oriented programming: Object Oriented paradigm – Basic concepts of Object-Oriented Programming – Benefits of OOP – Applications of OOP.

Java Evolution: Java Features – How Java differs from C and C++ - Java and Internet – Java and World Wide Web – Web Browsers – Hardware and Software Requirements – Java Environment.

Overview of Java Language: Simple Java Program – Java Program Structure – Java Tokens- Java Statements – Implementing a Java Program – Java Virtual Machine – Command Line Arguments.

Constants, Variables and Data types: Constants – Variables – Data types – Declaration of Variables-Giving Values to variables-Scope of Variables-Symbolic Constants-Type Casting.

UNIT – II

(09 teaching hours – 15% weightage)

Operators and Expressions: Arithmetic Operators – Relational Operators- Logical Operators – Assignment Operators – Increment and Decrement Operators – Conditional Operators – Bitwise Operators – Special Operators – Arithmetic Expressions – Evaluation of Expressions – Precedence of Arithmetic Operators – Operator Precedence and Associativity.

Decision Making and Branching: Decision Making with If statement – Simple If Statement-If else Statement-Nesting If Else Statement- the Else If Ladder-The switch Statement – The? Operator.

Decision Making and Looping: The while statement – The do statement – The for statement – Jumps in Loops.

UNIT – III

(18 teaching hours - 30% weightage)

Class, Objects and Methods: Defining a Class – Fields Declaration – Methods Declaration – Creating Objects – Accessing class members – Constructors – Methods Overloading – Static Members – Nesting of Methods – Inheritance – Overriding Methods – Final Variables and Methods – Final Classes – Abstract Methods and Classes – Visibility Control.

Arrays, Strings and Vectors: One-dimensional Arrays-creating an Array – Two dimensional Arrays – Strings – Vectors – Wrapper Classes – Enumerated Types.

Interfaces: Multiple Inheritance: Defining Interfaces – Extending Interfaces – Implementing Interfaces – Accessing Interface Variables.

UNIT – IV

(12 teaching hours - 20% weightage)

Packages: Java API Packages – Using system Packages – Naming Conventions – Creating Packages – Accessing a Package – Using a Package – Adding a Class to a Package – Hiding Classes – Static Import.

Multithreaded Programming: Creating Threads – Extending the Thread Class – Stopping and Blocking a Thread – Life Cycle of a Thread – Using Thread Methods – Thread Exceptions – Thread Priority – Synchronization.

UNIT – V

(12 teaching hours - 20% weight-age)

Managing Errors and Exceptions: Types of Errors – Exceptions – Syntax of Exception Handling Code – Multiple Catch Statements – Using Finally Statement – Throwing our own Exceptions – Using Exceptions for debugging.

Applet Programming: How Applets differ from Applications – Preparing to write Applets – Building Applet Code – Applet Life Cycle – Creating an executable Applet

Prescribed books:

1. E.Balaguruswamy, Programming with Java, A primer, 3e, TATA McGraw-Hill Company (2008).

Reference Books:

1. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series, Tata McGraw-Hill (2007).
2. Timothy Budd, Understanding Object Oriented Programming with Java, Pearson Education (2007).
3. Jana, Java and Object Oriented Programming Paradigm, PHI (2007).
4. Deitel & Deitel. Java TM: How to Program, 7th Edition, PHI (2008).



II B.Sc. Computer Science

III Semester

DATA STRUCTURES

(w.e.f 2021-22)

UNIT – I

(13 teaching hours – 20% weightage)

Introduction to Data Structures – Arrays – Classes. **Stacks:** Definition and Examples – Primitive Operations – Example – The Stack as an Abstract Data Type – Representing Stacks: Implementing the push Operation – Implementing the pop Operation – Testing for Exceptional Conditions – **Example: Infix, Postfix, and Prefix** – Basic Definitions and Examples – Evaluating a Postfix Expression – Converting an Expression from Infix to Postfix – Program to Convert an Expression from Infix to Postfix – Limitations of a program.

Queues: Definition – Examples - Sequential Representation – The Queue as an Abstract Data Type – Operations on Queues: Insert Operation – Delete Operation – Implementation of a Queue - Circular Queue - Priority Queue – Implementation of a Priority Queue.

UNIT –II

(15 teaching hours – 23% weightage)

Linked Lists: A Simple Linked List – The Link Class – The LinkList Class – The insertFirst() Method – The deleteFirst() Method – The displayList() Method – The linkList Program.

Finding and Deleting Specified Links: The find() Method – The delete() Method – Other Methods. Double-Ended Lists - Linked List Efficiency

Abstract Data Types – A Stack Implemented by a Linked List – A Queue Implemented by a Linked List – Data Types and Abstraction – ADT Lists – ADTs as a Design Tool.

UNIT – III

(10 teaching hours – 17% weightage)

Trees: Binary Trees – Operations on Binary Trees – Applications of Binary Trees – Binary Tree Representations – Node Representation of Binary Trees – Internal and External Nodes – Implicit Array Representation of Binary Trees – Choosing a Binary Tree Representation – Binary Tree Traversals – **Trees and Their Applications** – Representation of Trees – Tree Traversals – General Expressions as Trees – Evaluating an Expression Tree – Constructing a Tree.

UNIT – IV

(13 teaching hours – 22% weightage)

Sorting: – Selection Sort – Insertion Sort – Bubble Sort – Shell Sort - Quick sort – **Tree Sorting** – Selection Sorts – Binary Tree Sorts – Heap Sort – Sorting Using a Heap – Heap sort Procedure.

Searching: Basic Search Technique – Sequential Searching – Binary Search.

UNIT – V

(9 teaching hours – 18% weightage)

Graphs and Their Applications: Graphs – Applications of Graphs – Representation of Graphs – Graph Traversal and Spanning Forests – Traversal Methods for Graphs – Spanning Forests – Undirected Graphs and their Traversals – Depth-first Traversal – Applications of Depth-First traversal – Breadth-First Traversal.

Prescribed books:

1. Data Structures Using C and C++ by Yedidyah Langsam. Moshe J. Augenstein, Aaron M. Tenenbaum (only algorithms)
2. Robert Lafore, Data Structures & Algorithms in Java, Second Edition, Pearson Education (2008) (only Programs)



II B.Sc., Computer Science

(IV Semester)

MODERN DATABASE MANAGEMENT SYSTEM

(w.e.f. 2021-2022)

UNIT – 1

(9 teaching hours – 20% weight-age)

Introduction, Data and Information, Database, Database Management System - File-Based System, Drawbacks of File-Based System, Database Approach, Advantages of DBMS - The Range of Database Applications - Components of Database System - Database Architecture: Three Schema Architecture for Database Development – Three Tiered Database location Architecture.

UNIT – II

(9 teaching hours – 20% weight-age)

MODELING DATA IN THE ORGANIZATION:

Modeling the Rules of the Organization: Entity – Relationship (E-R) Modeling – Introduction: Basic E-R Concepts, Entities, Relationships, Attributes, constraints – E-R Modeling Example: Pine Valley Furniture Company.

THE ENHANCED E-R MODEL AND BUSINESS RULES:

Representing Super types and Subtypes. Specifying Constraints in Super type/Subtype Relationships. EER Modeling Example: Pine Valley Furniture.

UNIT - III

(8 teaching hours – 18% weight-age)

LOGICAL DATABASE DESIGN AND THE RELATIONAL MODEL:

The Relational Data Model. Integrity Constraints. Transforming ER Diagrams into Relations. Introduction to Normalization. The Basic Normal Forms: First, Second, Third Normal Forms - ADVANCED NORMAL FORMS: Boyce-Codd Normal Form. Fourth Normal Form -Merging Relations. Denormalization and partitioning - Transaction - ACIDS Properties.

UNIT – IV

(10 teaching hours – 22% weight-age)

Introduction to ORACLE – Introduction to SQL –Table Fundamentals – The CREATE TABLE command – VIEWING data in the TABLES – Eliminating duplicate rows when using a select statement – Sorting data in a table – Creating a table from a Table – Inserting data into a table from another table – Delete operations – Updating the contents of a table – Modifying the structure of tables – Renaming tables – Truncating tables –destroying tables.

Data Constraints – Types of data constraints – Defining different constraints on a table – The user constraints table – Defining Integrity Constraints via the ALTER TABLE command – Dropping Integrity Constraints via the ALTER TABLE command – Default Value concept - SQL Performance Tuning: INDEXES – Multiple INDEXES on a Table - VIEWS – SEQUENCES

UNIT – V

(9 teaching hours – 20% weight-age)

Computations done on table data – ORACLE Functions – DATE conversion functions - DATE functions – Grouping data from tables in SQL –SUBQUERIES – JOINS – Using UNION, INTERSECTION and MINUS CLAUSE.

PL / SQL : Introduction to PL/SQL – Advantages of PL/SQL – The generic PL/SQL –Data types - Control Structures – ORACLE Transactions – CURSORS – Error Handling in PL/SQL – ORACLE NAMED Exception Handlers - Procedures – Functions – Procedures Vs. Functions - Database Triggers.

TEXT BOOKS:

1. Modern Data Base Management: Jeffery A. Hoffer. Mary B. Prescott and Fred R. Mc.Fadden. Pearson Education Asia - Sixth Edition.
2. Database Systems: Concepts, Design and Applications By S. K. Singh, Pearson Education 2009
3. SQL, PL/SQL, the program language of oracle by Ivan Bayross, BPB Publications, 4th Edition



II B.Sc., Computer Science
(IV Semester)
OPERATING SYSTEMS
(w.e.f. 2021-2022)

UNIT – I

(9 teaching hours – 20% weight-age)

Operating System Introduction: Operating Systems Objectives and functions, Computer System Architecture, OS Structure, OS Operations, Evolution of Operating Systems - Simple Batch, Multi programmed, time shared, Parallel, Distributed Systems, Real-Time Systems, Operating System services.

UNIT – II

(9 teaching hours – 20% weight-age)

Process and CPU Scheduling - Process concepts - The Process, Process State, Process Control Block, Threads, Process Scheduling - Scheduling Queues, Schedulers, Context Switch, Pre-emptive Scheduling, Dispatcher, Scheduling Criteria, Scheduling algorithms.

UNIT - III

(9 teaching hours – 20% weight-age)

Process Coordination - Process Synchronization, The Critical section Problem, Synchronization Hardware, Semaphores, and Classic Problems of Synchronization, Monitors.
Deadlocks - System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery from Deadlock.

UNIT – IV

(9 teaching hours – 20% weight-age)

Memory Management and Virtual Memory - Logical & physical Address Space, Swapping, Contiguous Allocation, Paging, Structure of Page Table. Segmentation, Segmentation with Paging, Virtual Memory, Demand Paging, Performance of Demanding Paging, Page Replacement Page Replacement Algorithms, Allocation of Frames.

UNIT - V

(9 teaching hours – 20% weight-age)

File System Interface - The Concept of a File, Access methods, Directory Structure, File System Mounting, File Sharing, Protection, File System Structure,
Introduction to Android Operating System, Android Development Framework, Android Application Architecture, Android Process Management and File System, Small Application Development using Android Development Framework.

REFERENCES BOOKS:

1. Operating System Principles, Abraham Silberchatz, Peter B. Galvin, Greg Gagne 8th Edition, Wiley Student Edition.
2. Operating systems - Internals and Design Principles, W. Stallings, 6th Edition, Pearson.
3. Operating Systems by J. Archer Harris (Author), Jyoti Singh (Author) (TMH)
4. Principles of Operating Systems by Naresh Chauhan, OXFORD University Press
5. Operating Systems A concept - based Approach, 2nd Edition, D. M. Dhamdhere, TMH.
6. Online Resources for UNIT V



II B.Com (Computer Applications)

III SEMESTER

MODERN DATABASE MANAGEMENT SYSTEM

(w.e.f. 2021-2022)

UNIT – 1

(12 teaching hours – 20% weight-age)

Introduction, Data and Information, Database, Database Management System - File-Based System, Drawbacks of File-Based System, Database Approach, Advantages of DBMS - The Range of Database Applications - Components of Database System - Database Architecture: Three Schema Architecture for Database Development – Three Tiered Database location Architecture.

UNIT – II

(15 teaching hours – 23% weight-age)

MODELING DATA IN THE ORGANIZATION:

Modeling the Rules of the Organization: Entity – Relationship (E-R) Modeling – Introduction: Basic E-R Concepts, Entities, Relationships, Attributes, constraints – E-R Modeling Example: Pine Valley Furniture Company.

THE ENHANCED E-R MODEL AND BUSINESS RULES:

Representing Super types and Subtypes. Specifying Constraints in Super type/Subtype Relationships. EER Modeling Example: Pine Valley Furniture.

UNIT - III

(9 teaching hours – 17% weight-age)

LOGICAL DATABASE DESIGN AND THE RELATIONAL MODEL:

The Relational Data Model. Integrity Constraints. Transforming ER Diagrams into Relations. Introduction to Normalization. The Basic Normal Forms: First, Second, Third Normal Forms - ADVANCED NORMAL FORMS: Boyce-Codd Normal Form. Fourth Normal Form -Merging Relations. Denormalization and partitioning - Transaction - ACIDS Properties.

UNIT – IV

(15 teaching hours – 23% weight-age)

Introduction to ORACLE – Introduction to SQL –Table Fundamentals – The CREATE TABLE command –VIEWING data in the TABLES – Eliminating duplicate rows when using a select statement – Sorting data in a table – Creating a table from a Table – Inserting data into a table from another table – Delete operations – Updating the contents of a table – Modifying the structure of tables – Renaming tables – Truncating tables –destroying tables.

Data Constraints – Types of data constraints – Defining different constraints on a table – The user constraints table – Defining Integrity Constraints via the ALTER TABLE command – Dropping Integrity Constraints via the ALTER TABLE command – Default Value concept - SQL Performance Tuning: INDEXES – Multiple INDEXES on a Table - VIEWS – SEQUENCES

UNIT – V

(9 teaching hours – 17% weight-age)

Computations done on table data – ORACLE Functions – DATE conversion functions - DATE functions – Grouping data from tables in SQL –SUBQUERIES – JOINS – Using UNION, INTERSECTION and MINUS CLAUSE.

PL / SQL : Introduction to PL/SQL – Advantages of PL/SQL – The generic PL/SQL –Data types - Control Structures – ORACLE Transactions – CURSORS – Error Handling in PL/SQL – ORACLE NAMED Exception Handlers - Procedures – Functions – Procedures Vs Functions - Database Triggers.

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3. SQL, PL/SQL, the program language of oracle by Ivan Bayross, BPB Publications, 4th Edition



II B.Com.,(Computer Applications)

IV SEMESTER

E-Commerce and Web Designing

(w.e.f 2021-2022)

UNIT I

(12 teaching classes-20%weightage)

Introduction to E Commerce:

E-commerce: Definition - The Difference between E-commerce and E-business - How E-Commerce Changes Business: Strategy, Structure, and Process - Electronic Commerce and trade Cycle – Types of Electronic Commerce.

Technology used in E-commerce: The dynamics of World Wide Web and Internet (Meaning, Evolution And Features); Designing, Building and Launching e-commerce website (A systematic approach involving decisions regarding selection of hardware, software, outsourcing Vs. in-house development of a website).

UNIT II

(12 teaching classes-20%weightage)

E-commerce business models and concepts, the internet and World Wide Web:

E-commerce Business Models, Major Business to Consumer (B2C) business models, Major Business to Business (B2B) business models - Business models in emerging E-commerce areas.

On-line Business Transactions: Meaning, Purpose, Advantages and Disadvantages of Transacting Online, E-Commerce Applications in Various Industries Like Banking, Insurance - Online Marketing - Online Services (Financial, Travel and Career), Auctions - Online Learning - Online Shopping (Amazon, Flipkart etc.)

UNIT III

(12 teaching classes-20%weightage)

Security and payment in E-commerce:

The e-commerce security environment, Security threats in the e-commerce environment, Technology solution - E-commerce payment systems -Types of payment systems. Payment Gateways, Online Banking (Meaning, Concepts, Importance, Electronic Fund Transfer, Automated Clearing House, Automated Ledger Posting).

UNIT IV

(12 teaching classes-20%weightage)

Basic HTML Structure: Starting Your Web Page-Creating a Title, Headings, Group Headings, Header, Footer-Common Page Constructs-Marking Navigation- Creating an Article- Defining a Section- Specifying an Aside-Naming Elements with a class or ID- Adding the Title Attribute to Elements- Comments.

Text: Starting a New Paragraph- Adding Author Contact Information- Creating a Figure- specifying time-Marking important and Emphasized - citation or Reference-Quoting- Highlighting Text –Abbreviations- Term, Superscripts- Subscripts- Noting Edits and inaccurate Text- Marking Up Code-Using Preformatted Text-Specifying Fine Print,-Creating a Line Break- Spans- other Elements.

Formatting Text with Styles: Choosing a Font Family-Specifying Alternative Fonts – Creating Italics- Applying Bold Formatting- setting the Font Size, Line Height, Font Values at once and the Color – Changing the Text's Background – Controlling Spacing – Adding Indents – Setting White Space Properties – Aligning Text – Changing the Text Case – Using Small Caps – Decorating Text - Style Sheets: Defining Styles, elements of Styles, linking a style sheet to a HTML Document, Inline Styles, External Style Sheets, Internal Style Sheets & Multiple Style Sheets.

UNIT V

(12 teaching classes -20%weightage)

Images: Images for the Web- Getting Images- Saving Images- Inserting Images on page- Offering Alternate Text- Specifying Image.

Links: The Anatomy- Creating a Link to Another Web page,-Creating Anchors- Creating to a specific Anchor- Creating other Kinds of Links.

Lists: Creating Ordered and Unordered Lists-Choosing Markers -Choosing where to start List Numbering-custom Markers-Controlling Markers Hang -Setting All List Style properties at once- styling Nested List-Creating Description Lists.

Tables: Structuring Tables-Spanning Columns and Rows.

Forms: Creating Forms- processing- Sending form data via Email- Organizing the form elements,- Creating Text Boxes, Password, Email, Telephone and URL Boxes, Radio Buttons, Select Boxes, Checkboxes, Text Areas , Hidden Fields, Submit Button- Using an image to submit a form- Disabling Form Elements-Allowing visitors to Upload Files.

Reference Books:

1. Kenneth C. Laudon, E-Commerce: Business, Technology, Society, 4th Edition, Pearson
2. E-Commerce and E-Business --- Himalaya Publications
3. Fundamentals of Web Development by Randy Connolly, Ricardo Hour, Pearson
4. HTML5 AND CSS3 Seventh Edition by Elizabeth Castro and Bruce Hyssop
5. Web Design: Introductory with MindTap Jennifer T Campbell, Cengage India.



II B.B.A (II SEMESTER)

E-Commerce

(w.e.f 2021-2022)

Unit I

(12 teaching classes-20%weightage)

Introduction to E Commerce:

E-commerce: Definition - The Difference between E-commerce and E-business - Understanding E-commerce: organizing Themes – Electronic Commerce and trade Cycle - The Scope of Electronic Commerce - Electronic Data Interchange (EDI) – Benefits of EDI.

Unit II

(12 teaching classes-20% weightage)

E-commerce business models and concepts, the internet and World Wide Web:

E-commerce Business Models, Major Business to Consumer (B2C) business models, Major Business to Business (B2B) business models, Business models in emerging E-commerce areas.

Unit III

(10 teaching classes-17% weightage)

Security and payment in E-commerce:

The e-commerce security environment, Security threats in the e-commerce environment, Technology solution - E-commerce payment systems -Types of payment systems.

Unit IV

(14 teaching classes-23% weightage)

Basic HTML Structure: Starting Your Web Page-Creating a Title, Headings, Group Headings, Header, Footer-Common Page Constructs-Marking Navigation- Creating an Article- Defining a Section- Specifying an Aside-Creating Generic Containers- Improving Accessibility with ARIA- Naming Elements with a class or ID- Adding the Title Attribute to Elements- Comments.

Text: Starting a New Paragraph- Adding Author Contact Information- Creating a Figure- specifying time-Marking important and Emphasized - citation or Reference-Quoting- Highlighting Text –Abbreviations- Term, Superscripts- Subscripts- Noting Edits and inaccurate Text- Marking Up Code-Using Preformatted Text-Specifying Fine Print,-Creating a Line Break- Spans- other Elements.

Formatting Text with Styles: Choosing a Font Family-Specifying Alternative Fonts – Creating Italics- Applying Bold Formatting- setting the Font Size, Line Height, Font Values at once and the Color – Changing the Text's Background – Controlling Spacing – Adding Indents – Setting White Space Properties – Aligning Text – Changing the Text Case – Using Small Caps – Decorating Text.

Unit V

(12 teaching classes -20%weightage)

Images: Images for the Web- Getting Images- Saving Images- Inserting Images on page- Offering Alternate Text- Specifying Image.

Links: The Anatomy- Creating a Link to Another Web page,-Creating Anchors- Creating to a specific Anchor- Creating other Kinds of Links.

Lists: Creating Ordered and Unordered Lists-Choosing Markers -Choosing where to start List Numbering-custom Markers-Controlling Markers Hang -Setting All List Style properties at once- styling Nested List-Creating Description Lists.

Tables: Structuring Tables-Spanning Columns and Rows.

Forms: Creating Forms- processing- Sending form data via Email- Organizing the form elements,- Creating Text Boxes, Password, Email, Telephone and URL Boxes, Radio Buttons, Select Boxes, Checkboxes, Text Areas , Hidden Fields, Submit Button- Using an image to submit a form- Disabling Form Elements-Allowing visitors to Upload Files.

Reference Books:

1. Kenneth C. Laudon, E-Commerce: Business, Technology, Society, 4th Edition, Pearson
2. S. J. Joseph, E-Commerce: an Indian perspective, PHI



Student Progression:

- 35% of Students for 2020-21 got placed in both MNCs and Start-ups.
- 25% of students from 2019-20 got placed in MNCs like Wipro, TCS and Infosys.
- In 2018-19, good number of students got placed in reputed companies like Infosys, Tech Mahindra, Wipro, Cognizant and TCS.
- 4 Students of 2017-18 batch and 6 students of 2016-2017 batch placed in RR technologies.
- M. Girish, stood third in SKILL INDIA competition conducted by APSSDC at university level.
- Pavan Kumar (2017-18) got admission in IIM Kolkata.
- Good number of students got placed in reputed companies like Infosys, Tech Mahindra, Wipro, Cognizant and TCS.
- 10 students of 2016-17 batch placed in TCS.
- Final year students of our department participated and stood first in cricket at university level.
- Several students from the department secured good ranks in ICET and joined in MCA, MBA courses in reputed universities and colleges.
- Students from our department bagged College Best Outgoing Student Award for continuous three years.



Distinguished Alumni:

- D. Madhusudhan Babu (Techdemocracy LA, USA)
- P. Raghavendra Prasad (National Blood Service, London, UK)
- D. Raghavendra (Project Lead, Dallas, Texas, USA)
- N.Anjan Reddy (Software Engineer, Miami, Florida, USA)
- C.Gayathri (System Analyst, Australia)
- M.T.Venkata Subbaiah (Baltimore, Maryland, USA)
- P. Arunkumar Reddy (Project Lead, USA)
- K. Krishnaveni (Project Lead, USA)
- Rage Nagaraj (Mission, Kansas, USA)
- Y. Bhaskar Reddy (Sr. Software Engineer, Wipro Technologies, Melbourne, Australia)
- Manasa Vivek (Datascibe Technologies INC. Amsterdam, Netherlands)
- Jakki Reddy (Sr. Software Engineer, IBM, Shrewsvury,MA, USA)
- C.V.Shyam Kumar (Goldman Sachs, Bangalore)
- S. Seshi Kiran Gupta (Wipro Technologies, Bangalore)
- Kasaraneni Ramana Kumar (Lead Consultant, Infosys, Hyderabad)
- P. Yesurathnam Babu (Relience Communications, Hyderabad)
- R. Ramnath (Mahindra Satyam, Hyderabad)
- G. Naveen Kumar (Assistant Manager, Vodafone Essar Ltd., Pune)
- Khajapeer Mulla (Tata Consultancy Service, Florida)
- C. Narasimha Reddy (Sr. Associate @ Cognizant, Bangalore)
- M. Raghavendra (NTT Data Americas, Hyderabad)



- K.Saran Kumar (Sr. Test Analyst, Collabera, Bangalore)
- S.Sravan Kumar (IT Analyst Tata Consultancy Services, Hyd.)
- R.Sreenath (Aricent Technologies, Bangalore)
- Nagarjuna Gowd (TCS, Bangalore)
- T.Lokeswar Reddy (Oracle, Hyderabad)
- B.M.Nanda Gopal (TCS, Hyderabad)
- Anantha Hari Babu (Associate, India Theatrical Distribution, Hyd.)
- K. Jagadish (Wipro Technologies, Bangalore)
- Vamsi Krishna (Wipro Technologies, Hyderabad)
- Dinesh Patange (Wipro Technologies, Honking)
- G. Hima Bindu (TCS, Bangalore)
- P.T. Sireesha (TCS, Bangalore)
- G. Harini (TCS, Bangalore)
- Rajesh (TCS, Bangalore)
- Kakarla Gayitri (Process Developer, Genpact, Hyderabad)
- Gattu Niranjan (HCL Technologies, Chennai)
- Vimala Reddy (JP Morgan Chase & Co., Bangalore)
- Suhas (TCS, Bangalore)
- N.C. Manjunath (Admin at IBM)
- P. Bindu (HR, GLT, Bangalore)
- T. Bindu Madhavi (Information Scientist, SSSIH, Anatapur)
- K.P Manoj Kumar Reddy (LinkDin, Bangalore)
- P. Gurunath Reddy (Associate Engineer, Aricent, Bangalore)
- G. Kartik, (Associate Software Engineer, TCS, Bangalore)
- Kiran Sharma (Associate, Google, Hyderabad)
- Humayun Basha (AP Police Department)
- Vannur Vali (Software Development, Wipro, Chennai)
- M. Bhargavi Chowdary (Pega Testar, TCS, Hyderabad)
- Seshikiran Gupta (Technical Lead, Wipro Technologies, Bangalore)
- Durga Bhavani (Wipro Technologies, Bangalore)
- Sai Divya (Application Developer, Accenture, Bangalore)
- Aprameya Joshi (Analyst, Ocwen, Bangalore)
- V. Bharath (Manager, Fedaral Bank Limited, Hyderabad)
- V. Tejaswini (Regent Research, Bangalore)



INFRASTRUCTURE

Terra Lab

(Area : 1250 Sft)



Servers (2 nos)

Internet Server with Intel core i7 processor, 8GB DDR3 RAM, 120GB SSD, 500GB SATA HDD 27-inch IPS LED Monitor	1
PC with Intel core i5 Processor, 4GB DDR3 RAM, 500GB SATA HDD, 25-inch IPS LED Backlit Monitor (for content sharing over the Intranet)	1

Internet Connectivity

BSNL 10MBps Broadband over OFC	1
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Desktop PCs (40 nos)

Desktop PCs with Intel Dual Core Processor, 2GB RAM DDR3, 500GB SATA HDD 18.5" LED Monitor	35
Lenovo Desktop V520T - Intel Core i3 Processor 4GB DDR4 Ram - 1 TB SATA HDD - 19.5" LED Monitor	5

Laptops

HP Compaq 510 Laptop	1
Dell XPS15 Laptop 2nd generation	1

Printers & Scanners

HP Scanjet enterprise 8270	1
HP LaserJet 706 dN Printer	1
HP LaserJet M1005 MFP Printer	1



<u>Network Equipment</u>	
CAT 6e Network cabling	All the systems
D-Link 24 Port Gigabit switch	1
D-Link DES 1210 52 Port Gigabit switch	1
D-Link ADSL modem	1
NetGear WiFi Access Point for Internet sharing	1
Netgear POE Switch	1
Netrack 9U Rack	1
<u>Backup & Surge Protection Equipment</u>	
Krykard Stabiliser (10KVA Single phase)	1
2.2 KVA "APC UPS Line interactive 26 AH - 12Vx4 Nos "SMF" Batteries	5
<u>Furniture & other Equipment</u>	
Double Sided Computer Worktable of Size 12'(L) x 4'(H) x 5.5'(W) accommodating 10 Seats	4
Single Sided Computer Worktable of Size 12'(L) x 4'(H) x 2.7'(W) accommodating 5 Seats	1
Revolving Chair with Moulded Fibre Seat	45
Wooden Storage Cabinets	2
Wooden Bookshelf Cabinet	1
8' x 4' Non-Magnetic White board	1
1.5 Ton Split Air conditioners	5
	



Peta Lab

(Area : 1500 SFt)



Desktop PCs (58 nos)



Lenovo Desktop V520T - Intel Core i3 Processor 4GB DDR4 Ram - 1 TB SATA HDD - 19.5 LED Monitor	30
Desktop PCs with Intel Dual Core Processor, 2GB RAM DDR3, 500GB SATA HDD 18.5" LED Monitor	28

Internet Connectivity

BSNL Fibrenet Connection with 2MBps Speed	1
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<u>Printers & Scanners</u>	
HP Scanjet enterprise 7500	1
Epson L6170 Ink Tank Printer	1
<u>Projector & PA System</u>	
Epson Projector	1
Liberty Make 8' x 6' feet High gain Projection Screen	1
Wooden Podium with Portable PA System	1
<u>Network Equipment</u>	
CAT 6e Network cabling	All the systems
D-Link 24 Port Gigabit switch	1
D-Link DES 1210 52 Port Gigabit switch	1
Netrack 9U Rack	1
<u>Backup & Surge Protection Equipment</u>	
Servo Max Stabiliser (15KVA Single phase)	1
2.2 KVA "APC UPS Line interactive 26 AH - 12Vx4 Nos "SMF" Batteries	7
<u>Furniture & other Equipment</u>	
Single Sided Computer Worktable of Size 50'(L) x 4'(H) x 2.7(W) accommodating 18 Seats	1
Single Sided Computer Worktable of Size 12'(L) x 4'(H) x 2.7'(W) accommodating 6 Seats	1
Double Sided Computer Worktable of Size 45(L) x 4'(H) x 5.5(W) accommodating 20 Seats	1
Single Sided Computer Worktable of Size 48'(L) x 4'(H) x 2.7'(W) accommodating 14 Seats	1
Revolving Chair with Moulded Fibre Seat	60
Wooden Storage Cabinets	2
2.0 Ton Split Air conditioners	2
8' x 4' Non-Magnetic White board	1
1.5 Ton Split Air conditioners	2





Zeta Lab

(Area : 1250 Sft)



Servers (1 no.)

IBM X-Server X3200 M3 with Intel Xeon E3430 Quad Core 2.4Ghz Processor 4GB memory, 250GB SATA HDD	1
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Internet Connectivity

BSNL 10MBps Broadband over OFC	1
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Desktop PCs (50 nos)

Desktop PCs with Intel Dual Core Processor, 2GB RAM DDR3, 500GB SATA HDD 18.5" LED Monitor	50
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Printers & Scanners

HP Scanjet G3110	1
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HP LaserJet 1020plus Printer	1
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Projector & PA System

BenQ DLP Projector	1
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Liberty Make 8' x 6' feet High gain Projection Screen	1
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Ahuja Portable Lectern System	1
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<u>Network Equipment</u>	
D-Link 24 Port Gigabit switch	3
NetGear WiFi Access Point for Internet sharing	1
Netrack 9U Rack	1
<u>Backup & Surge Protection Equipment</u>	
Krykard Stabiliser (15KVA Single phase)	1
2.2 KVA "APC UPS Line interactive 26 AH - 12Vx4 Nos "SMF" Batteries	5
<u>Furniture & other Equipment</u>	
Single Sided Computer Worktable of Size 55'(L) x 4'(H) x 2.5'(W) accommodating 23 Seats	1
Single Sided Computer Worktable of Size 41'(L) x 4'(H) x 2.7'(W) accommodating 15 Seats	1
Single Sided Computer Worktable of Size 30'(L) x 4'(H) x 2.7'(W) accommodating 12 Seats	1
Revolving Chair with Moulded Fibre Seat and Hydraulic height adjustment	55
Wooden Storage Cabinets	3
8' x 4' Non-Magnetic White board	1
1.5 Ton Split Air conditioners	4
<u>Other Equipment & E-resources</u>	
Adobe E-Learning Suite	1
ITC Portable PA System	2
Sony Digital camera DSC-HX100v	1
VTC E-learning Bundle	50 volumes





E-CLASSROOMS

(Area : 750 Sft Each)

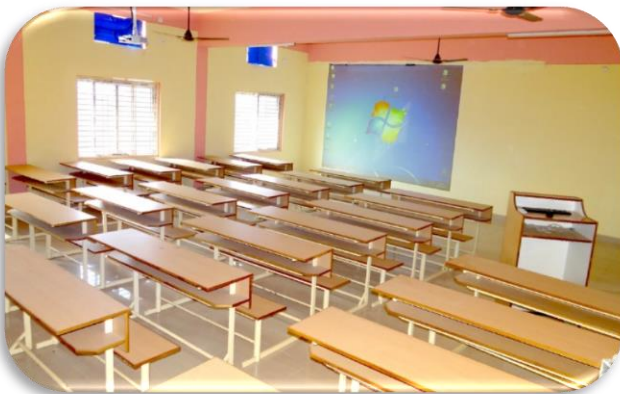
All the Classrooms are equipped with OHP Projectors, 8' x 6' High-gain Projection Screens and Portable PA System





DIGITAL CLASSROOMS

Equipped with LCD Projectors and Portable PA System





SOFTWARE

- WinStrtr 7 SNGL OLP NL Acdmc Legalization GetGenui
- WinPro 7 SNGL Upgrd OLP NL Acdmc
- SQLSvrStd 2008R2 SNGL OLP NL Acdmc, SQLCAL 2008R2 SNGL OLP NL
- WinSvrStd 2008R2 SNGL OLP NL Acdmc, WinSvrCAL 2008 SNGL OLP NL
- VSProwMSDN ALNG LicSAPk OLP NL Acdmc Qlfd
- OfficeProPlus 2010 SNGL OLP NL Acdmc
- Windows 2003 Server Ent. OLP NL Academic Edition (AE)
- Sun Solaris 8.0 Server Software ,Red Hat Linux, SUSE Linux 7.0
- E-learning Content Developing S/W - Adobe e-Learning Suite 2.5 Windows Platform (Education License)
- Open Office Suite, Oracle, C, C++ , Java SDK's, HTML authoring tools

Linux 7.0

Open Office Suite

Sun Solaris 10.0

Oracle

Windows 2003 Server

C, C++

Java SDK's

MS Office Suite

HTML authoring tools

MS SQL server 2000



Student Zone

MOOCS

Students have access to various MOOC (**M**assive **O**pen **O**nline **C**ourses) platforms like NPTEL, SWAYAM, MookIT, edX, Spoken Tutorial, Coursera etc., through which they can acquire knowledge and skills apart from their regular curriculum.

Assessment for Placement

Department in collaboration with Career Development Cell provide exposure to the students to various assessment and placement platforms like Qspiders, AMCAT, eLitmus, eGurukul, Wheebox, Cocubes & College Connect by which they can assess themselves.

E-Resources

Numerous volumes of E-Books, CBTs, VTC (Virtual Training Center) Tutorials are made available in Student Zone (**Department Intranet**) which can be accessed from any PC across the three Labs.

Departmental Library

Apart from more than 450 books students can access for the Journals like DIGIT, DataQuest, Linux for You and VTC tutorials in the department library.





DEPARTMENTAL ACTIVITIES

DO IT YOURSELF (WORKSHOP)





DO IT YOURSELF (WORKSHOP)





PEER TO PEER TRAINING WORKSHOP



JUST A MINUTE COMPETITION





CODING CONTEST





PYTHON FOR DATASCIENCE WORKSHOP





WORKSHOP ON NATURAL ABILITY ASSESSMENT





WORKSHOP ROBOT FRAMEWORK

