



JAI HIND COLLEGE

Basantsing Institute of Science & J. T. Lalvani College of Commerce.

And Sheila Gopal Raheja College of Management

Affiliated to University of Mumbai

Autonomous

Bachelor of Science (Information Technology) (B.Sc. IT)

Semester I

Course Code: SBIT101	Course Title: Fundamentals of Programming with C and C++
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Learning Objectives:

- 1.. To make them understand and trace the execution of programs written in C Language.
2. To train them about procedure oriented and object-oriented concepts.
3. To make them handle possible errors during program execution.

Learning Outcomes:

- Ø Able to develop C and C++ programs.
- Ø Acquire decision making and looping concepts.
- Ø Design and develop modular programming.

Semester I

Course Code: SBIT102	Course Title: Computer Organisation & Architecture
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Learning Objectives:

- Ø To make them understand the structure, function and characteristics of computer systems
- Ø To make them understand the function of each element of a memory hierarchy.
- Ø To train them with the basic knowledge of digital logic levels and application of knowledge to understand digital electronics circuits.

Learning Outcomes:

1. Summarize the architecture and functionality of central processing unit
2. Illustrate in a better way the I/O and memory organization
3. design and application of digital logic circuits, including combinational and sequential logic circuits.

Semester I

Course Code: SBIT103	Course Title: Web Programming
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Learning Objectives:

- Ø To make them design valid, well-formed, scalable, and meaningful pages using emerging technologies.

Ø To train them to develop and implement client-side and server-side scripting language programs.

Ø To make them develop and implement Database Driven Websites.

Learning Outcomes:

1. Practice writing, markup and coding involved in Web development, which includes Web content, Web client and server scripting.
2. Use knowledge on the application area, client and server scripting, and database technology used in web development.
3. Design database.

Semester I

Course Code: SBIT104	Course Title: Discrete Mathematics
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Learning Objectives:

Ø To make them develop logical thinking and its application to computer science

Ø To train them Use division into cases in a proof.

Ø To train them to Use counter examples.

Learning Outcomes:

1. practice analytical, creative and critical thinking in developing robust, extensible and highly maintainable technological solutions to simple and complex problems.
2. Implement knowledge on division
3. Design counter examples.

Semester I

Course Code: SBIT105	Course Title: Communication Skills
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Learning Objectives:

1. To help them to Develop Communication Skills of Students
2. To help in personality development
3. To make them aware about soft skill and improve speaking, learning, and interview skills s

Learning Outcomes:

1. Use English language as a tool for global communication, the course aims to develop and enhance the linguistic and communicative competence of the students.
 - Ø use skills of reading, writing, listening, and speaking. By providing suitable examples, the students will be exposed to various forms of personal and professional communication.
 - Ø enhance communication skills in a modern, globalized context

Semester I

Course Code: SBIT101PR	Course Title: Fundamentals of Programming with C and C++ Practical
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Learning Objectives

- 1.To train them to Write a program to display the message HELLO WORLD.
- 2.To make them aware about a program to declare some variables of type int, float and double. Assign some values to these variables.

3. TO train them to run a program to find the addition, subtraction, multiplication and division of two numbers.

Learning Outcomes

1.1.define a program to display the message HELLO WORLD.

2.run program to declare some variables of type int, float and double. Assign some values to these variables.

3. Summarize program to find the addition, subtraction, multiplication and division of two numbers.

Semester I

Course Code: SBIT102PR	Course Title: Computer Organisation & Architecture Practical
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Learning Objectives

1.To train them to Install of virtual machine

2. To familiarize with concepts of Windows operating system on virtual machine.

3. To make them understand Installation of Linux operating system (RedHat / Ubuntu) on virtual machine

Learning Outcome:

1.resolve problems on Install of virtual machine

2. Use concepts of Windows operating system on virtual machine.

3. Describe Installation of Linux operating system (RedHat / Ubuntu) on virtual machine
Outcome:

Semester I

Course Code: SBIT103PR	Course Title: Web Programming Practical
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Learning Objectives

1. To make them Design a web page using different text formatting tags.
2. To make them understand with links to different pages and allow navigation between web pages.
- 3 To help them to .Design a web page demonstrating all Style sheet types

Learning Outcomes:.

1. Design a web page using different text formatting tags.
2. Make links to different pages and allow navigation between web pages.
- 3 Design a web page demonstrating all Style sheet types

Semester I

Course Code: SBIT104PR	Course Title: Discrete Mathematics Practical
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Objectives

1. To help them in studying the Sets Theory
2. To make them understand Inclusion Exclusion principle.
3. TO help them to clear the concept of Power Sets and Mathematical Induction.

Outcome:

- 1.use concept of the Sets Theory

2. Implement Inclusion Exclusion principle.
- 3 define Power Sets and Mathematical Induction.

Semester I

Course Code: SBIT105PR	Course Title: Communication Skills Practical
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Learning Objectives -

- 1.To train them to use Communication skills
2. To make them Understanding the Dos and Don'ts of persuading
3. To help them to define Minority Influence Strategy.

Learning Outcomes:

- 1.use Communication skills
2. Differentiate the Dos and Don'ts of persuading
3. define Minority Influence Strategy.

Semester II

Course Code: SBIT201	Course Title: Python Programming
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Learning Objectives:

- To make them understand how to read/write to files, handle exceptions and multi-threading using python.
- To help them in building and package Python modules for reusability.
- To make understand the concept of pattern matching.

Learning Outcomes:

1. Interpret Object oriented programming in Python
2. summarize different File handling operations
3. design GUI Applications in Python and evaluate different database operations

Semester II

Course Code: SBIT202	Course Title: Advanced Web Programming
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Learning Objectives:

1. To make them Understand emerging web technologies
2. TO help them Learn the basics of creating XML documents, transforming XML documents, and validating XML documents
3. To train them to Articulate what React is and why it is useful

Learning Outcomes:

- summarize how the client-server model of Internet programming works.
- Design and develop interactive, client-side, executable web applications.
Build tools that assist in automating data transfer over the Internet.

Semester II

Course Code: SBIT203	Course Title: Microprocessor and Embedded Systems
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Learning Objectives:

- To make them understand basic architecture of 8086 microprocessor and 8051 microcontroller.

- To impart knowledge on interfacing of 8086 microprocessor with memory and peripheral chips involving system design.
- To make them understand techniques for faster execution of instructions and improve speed of operation and performance of microprocessor.

Learning Outcomes:

- differentiate the hardware and software components as well as their development cycles.
- resolve problems on deployment of embedded processors and supporting devices.
- Use 8051 programming in C designing of embedded system with 8051.

To apply their knowledge and skills to be employed and excel in IT professional careers and/or to continue their education in IT and/or related post graduate programmes

Semester II

<p>Course Code: SBIT204</p>	<p>Course Title: Computer Networks</p>
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Learning Objectives:

- To make them understand the concepts and fundamentals of data communication and computer networks.
- To help them to Build understanding of the fundamental concepts of computer networking.
- To help them in building the skills of subnetting and routing mechanisms.

Learning Outcomes:

- prepare to solve problems in Basic networking concepts.
- explain the Data Communications System and its components.
- differentiate different types of networks, various topologies and application of networks.

Semester II

Course Code: SBIT205	Course Title: Green Computing
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Learning Objectives:

To make them understand the Innovative way to converge technology and ecology

To sensitize them with *Security Concerns & Social Problems*

To train them to Practice of efficient and eco-friendly computing resources

Learning Outcomes:

- use knowledge to adopt green computing practices to minimize negative impacts on the environment.
 - Enhance the skill in energy saving practices in their use of hardware.
 - Evaluate technology tools that can reduce paper waste and carbon footprint.
- Understand the ways to minimize equipment disposal requirements.

Semester II

Course Code: SBIT201PR	Course Title: Python Programming Practical
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Objectives

1. To make them Write a program to display the message HELLO WORLD.
2. To train them to Write a program to swap two numbers without using a third variable.
3. To prepare them to write program to find the area of rectangle, square and circle.

Outcomes

4. define a program to display the message HELLO WORLD.
5. Run a program to swap two numbers without using a third variable.
6. Solve problems in writing program to find the area of rectangle, square and circle.

Semester II

Course Code: SBIT202PR	Course Title: Advanced Web Programming Practical
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Learning Objectives:

5. To make them aware about Installing Laravel and also understands the directory structure.
6. To help them to Create an application to perform routing with different routing methods and also pass parameters as a route parameter.
7. TO train themn to Create a form to implement Blade template.

Learning Outcomes:

5. Perform Installing Laravel and also understands the directory structure.
6. Create an application to perform routing with different routing methods and also pass parameters as a route parameter.
7. Create a form to implement Blade template.

Semester II

Course Code: SBIT203PR	Course Title: Microprocessor and Embedded Systems Practical
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Objectives

1. To make them aware about Programs Involving Data transfer instructions
2. To make them Write an ALP to move block of data without overlap
3. To train them to Write an ALP to move block of data with overlap

Outcome :

1. solve problems about Programs Involving Data transfer instructions
2. Write an ALP to move block of data without overlap
3. Define an ALP to move block of data with overlap

Semester II

Course Code: SBIT204PR	Course Title: Computer Networks Practical
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Objectives or Outcomes

- .1. To train them to creat Addressing and Subnetting
2. To give them ideas about an IP address and network mask, determine other information about the IP address such as:
3. TO make them understand about Network address

or Outcomes

- .1. creat Addressing and Subnetting
2. Make IP address and network mask, determine other information about the IP address such as:
- 3 us eknowledge about Network address

Semester II

Course Code: SBIT205PR	Course Title: Green Computing Practical
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Objectives

- a. To train them to study Case study on components on environment and environmental engineering.

- b. To make them Study of environmental safety awareness and disaster management
- c. TO train them to Use Latex for documentation (lab session)

Outcomes

- a. Perform Case study on components on environment and environmental engineering.
- b. Solve queries on environmental safety awareness and disaster management
- c. Use Latex for documentation (lab session)

Semester III

Course Code: SBIT301	Course Title: Applied Mathematics
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Learning Objectivea:

1. TO train them to Apply mathematical concepts and principles to perform computations
 - To mak ethem aware about rule in mathematics to solve problems
 - TO help them to Create, use and analyze graphical representations of mathematical relationships

Learning outcome

- Apply mathematical concepts and principles to perform computations
- Apply mathematics to solve problems
- Create, use and analyze graphical representations of mathematical relationships

Semester III

Course Code: SBIT302	Course Title: Applied Data Structures and Algorithms
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Learning Objectives:

- To impart the basic concepts of data structures and algorithms
- To make thenunderstand concepts about searching and sorting techniques
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Learning Outcomes:

- Describe how arrays, records, linked lists, stacks, queues, trees, and graphs are represented in memory and used by algorithms
- Describe common applications for arrays, records, linked list, stacks, queues, trees, and graphs

Demonstrate different methods for traversing trees.

Semester III

Course Code: SBIT303	Course Title: Operating System
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Learning Objectives:

- TO make them · Understand the structures of operating systems, including CPU scheduling, memory management, and device management.
- to help them to Covers topics including file systems, virtual memory, disk request scheduling, concurrent processes, deadlocks, security, and integrity.
- TO make them Understand the fundamentals of cloud computing and concepts of virtualization
- **Outcomes:**
 - 1.Learn and understand the concepts, core structure of Operating Systems and basic architectural components involved in operating systems design.
 - Use knowledge the process management policies and scheduling of processes by CPU.
 - Evaluate the requirement for process synchronization and coordination handled by the operating system.

Semester III

Course Code: SBIT304	Course Title: Databases and Transactions
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Learning Objectives:

- To train them to prohibit Manipulation of data.
- To make them Learning the development and structuring of data.
- To help them with Managing the transactions of the automated information and management systems.
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Learning Outcomes:

- summarize the basic concepts and the applications of database systems.
- perform the basic elements of a relational database management system
- Identify the data models for relevant problems.
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Semester III

Course Code: SBIT305	Course Title: Core Java with JSP
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Learning Objectives:

- To make them familiar with the features of Java Language
- To help them discover how to write Java code according to Object Oriented Programming principles.
- To make them aware with concepts such as Classes, Objects, Inheritance, Polymorphism and Interfaces
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Learning Outcomes:

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1. Use programming fundamentals using JAVA along with JSP Enterprise Programming Concepts
2. Utilize Java code according to Object Oriented Programming principles.
3. Use concepts such as Classes, Objects, Inheritance, Polymorphism and Interfaces

Semester III

Course Code: SBIT301PR	Course Title: Applied Mathematics Practical
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Learning Objectives:

To make them understand sympy

To help them understanding Symbolic Computation

To train them to Substitute simplify() function , Eval() function

Learning Outcomes:

Use sympy

Define Symbolic Computation

Practice Substitute simplify() function , Eval() function

Semester III

Course Code: SBIT302PR	Course Title: Applied Data Structures and Algorithms Practical
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Learning Objectives

- a. To make them Write a program to store the elements in 1-D array and perform the operations like searching, sorting and reversing the elements. [Menu Driven]
- b. To help them to Read the two arrays from the user and merge them and display the elements in sorted order.[Menu Driven]
- c. To make them understand to Write a program to perform the Matrix addition, Multiplication and Transpose Operation. [Menu Driven]

Learning Outcomes

1. summarize a program to store the elements in 1-D array and perform the operations like searching, sorting and reversing the elements. [Menu Driven]
- b. Read the two arrays from the user and merge them and display the elements in sorted order.[Menu Driven]
- c. define program to perform the Matrix addition, Multiplication and Transpose Operation. [Menu Driven]

Semester III

Course Code: SBIT303PR	Course Title: Operating System Practical
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Learning Objectives

1. To make them understand about Implementing the Process Scheduling algorithms.
2. To make them train Working with Vi Editor
3. To help them Working with Shell Programs:

Learning Outcomes

1. Implement the Process Scheduling algorithms.
2. use knowledge for Working with Vi Editor
3. Practice Working with Shell Programs:

Semester III

Course Code: SBIT304PR	Course Title: Databases and Transactions Practical
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Learning Objective :

1. To encourage them to Create relational database structure from ERD.
2. To make them aware about Importing and exporting data from CSV and XML files.
3. To inculcate knowledge to Use SQL basic operations with keys and constraints:
 - a. SET operations
 - b. Aggregate functions

Learning Outcome:

1. Create relational database structure from ERD.
2. Importing and exporting data from CSV and XML files.
3. Use SQL basic operations with keys and constraints:
 - a. SET operations
 - b. Aggregate functions

Semester III

Course Code: SBIT305PR	Course Title: Core Java with JSP Practical
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Learning Objective :

- a. To train them to Write a Java program to add two binary numbers.
- b. To inculcate them to Write a Java program to convert a decimal number to binary number and vice c. versa.
- c. To familiarize them about Java program to reverse a string.

Learning Outcomes

1. Perform to Write a Java program to add two binary numbers.
 2. Use java to convert a decimal number to binary number and vice c. versa.
 3. Solve problems on Java program to reverse a string.

Semester IV

Course Code: SBIT401	Course Title: Net Technologies with MVC
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Learning Objectives:

1. to make them understand the basic object-oriented concepts through C#
2. To help students to create applications and projects using the same language.
3. To provide insight into .NET technologies for web programming and enable them to design and develop interactive and responsive web applications with MVC architecture.

Learning Outcomes:

1. Develop a proficiency in the C# programming language and create applications with strong object oriented principles
2. Use knowledge Understand the core MVC concepts
3. Implementing Navigation in MVC web apps

Semester IV

Course Code: SBIT402	Course Title: Physical Computing and IoT Programming
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Learning Objectives:

- To make them learn IP as IoT network layer

- TO make them aware about How security and privacy is achieved in IoT
- TO train them with Advanced topics in IoT including data analytics and tools for IoT.

Learning Outcomes:

1. Use IoT and Programming the Raspberry Pi.
2. Solve problems on How security and privacy is achieved in IoT
3. Implement Advanced topics in IoT including data analytics and tools for IoT.

Semester IV

Course Code: SBIT403	Course Title: Computer Oriented Numerical and Statistical Techniques
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Learning Objectives:

1. To make them train to design data collection plans, analyze data appropriately and interpret and draw conclusions from those analyses.
2. To make them aware about central objective of the undergraduate major in Statistics is to equip students with consequently requisite quantitative skills that they can employ and build on in flexible ways.
3. To help them to analyze different types of data.

Learning Outcomes:

1. Perform regression and interpolation on datasets
2. Use knowledge to solve essential aspects of statistical sampling and analysis of experimental data
3. perform estimation of parameters and hypothesis testing

Semester IV

Course Code: SBIT404	Course Title: Software Methodologies and Management
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Learning Objectives:

To make them understand about time management, project and resource management.
To familiarize them with Learning Development methodologies, architecture.
TO train them to design of software systems

Learning Outcomes:

1. develop a software system from scratch.
2. Use fundamental principles of system development with object oriented.
- 3.practice time management.

Semester IV

Course Code: SBIT405	Course Title: Advanced Networks and Security
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Learning Objectives:

- To Provide an in-depth view of the advanced technologies used in enterprise-wide computer networks.
- TO Provide the theoretical foundation and practical skills of advanced computer networks.

- To make them Understanding Wireless LAN Design, WAN Technologies and the Enterprise Edge

Learning Outcomes:

- Analyze state-of-the-art real-world enterprise-wide networks.
- Design and build advanced enterprise-wide computer networks.
- Analyze Enterprise LAN, Wireless LAN, WAN technologies design.

Semester IV

Course Code: SBIT401PR	Course Title: .Net Technologies with MVC Practical
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Objectives

1. To make them Create simple application to perform following operations
2. To train them in Finding Factorial Value
3. To train them to Generate Fibonacci series.

Outcomes

1. Create simple application to perform following operations
2. Resolve problems in Finding Factorial Value
3. Generate Fibonacci series.

Semester IV

Course Code: SBIT402PR	Course Title: .Physical Computing and IoT Programming Practical
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Learning Objectives:

1. \To familiarize with Raspbian OS, Familiarizing with Raspberry Pi Components and interface, Connecting to ethernet, Monitor, USB.
2. To train them about Displaying different LED patterns with Raspberry Pi.
- 3.To train them about Displaying Time over 4-Digit 7-Segment Display using Raspberry Pi.

Learning Outcome:

1. use Raspbian OS, Raspberry Pi Components and interface, Connecting to ethernet, Monitor, USB.
2. Solve problems on Displaying different LED patterns with Raspberry Pi.
- 3.implement knowledge on Time over 4-Digit 7-Segment Display using Raspberry Pi.

Semester IV

Course Code: SBIT403PR	Course Title: Computer Oriented Numerical and Statistical Techniques Practical
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Learning Objectives

1. To familiarize with language R

To train them to Use R execute the basic commands, array, list and frames.

To train them to Create a Matrix using R and Perform the operations
addition, inverse, transpose and multiplication operations.

Learning Outcomes

1. use language R
2. execute the basic commands, array, list and frames.
3. Create a Matrix using R and Perform the operations addition, inverse, transpose and multiplication operations.

Semester IV

Course Code: SBIT404PR	Course Title: Software Methodologies and Management Practical
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Objectives Outcomes:

1. To make them aware of the use of tools and techniques for Research: methods to search required information effectively.
2. To make them train with Reference Management Software like Zotero/ Mendeley
3. To make them understand Software for paper formatting like LaTeX/ MS Office.

Learning Outcomes:

1. Use of tools and techniques for Research: methods to search required information effectively
2. Refer Management Software like Zotero/ Mendeley
3. Use Software for paper formatting like LaTeX/ MS Office.

Semester IV

Course Code: SBIT405PR	Course Title: Advanced Networks and Security Practical
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Objectives

1. To make them aware about **Configuring OSPF –I**
2. To help them to understand Single-Area OSPF Link Costs and Interface Priorities

3. To inculcate knowledge on Multi-Area OSPF with Stub Areas and Authentication

Outcomes

1. Perform **Configuring OSPF –I**
2. Evaluate Single-Area OSPF Link Costs and Interface Priorities
4. Use Multi-Area OSPF with Stub Areas and Authentication

Semester V

Course Code: SBIT501	Course Title: Research Methodology
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Objectives:

- Ø To make them Understand the Research Methodology with respect to the specific procedures or techniques used to identify,select,process and analyze information about a topic.
 - Ø The methodology section helps students to critically evaluate a study's overall validity and reliability.
- To help students with analysing research methodologies.

Outcomes:

Upon the completion of the course students will be able to:

- Ø elaborate what are the research concepts and its methodologies.
- Ø Select and define appropriate research problems and parameters
- Ø Prepare a project proposal

Semester V

Course Code: SBIT502	Course Title: Physical Computing and IoT Programming
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Learning Objectives:

- Ø To train them to learn IP as IoT network layer
- Ø To make them aware about How security and privacy is achieved in IoT
- Ø To sensitize them with Advanced topics in IoT including data analytics and tools for IoT.

Learning Outcomes:

1. Use IoT and Programming the Raspberry Pi.
2. Summarize security and privacy in IoT.
3. Perform data analysis.

Semester V

Course Code: SBIT503	Course Title: Mobile Application Development
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Learning Objectives:

- Ø To train Students about Android programming and learn to develop Android applications.
- Ø To make them aware installing Android development tools.
- Ø To train them in creating user interfaces and utilizing location-based services.

Learning Outcomes:

1. Install and configure Android application development tools.
2. Design and develop user Interfaces for the Android platform. Save state information across important operating system events.
3. Apply Java programming concepts to Android application development.

Semester V

Course Code: SBIT504	Course Title: Machine Learning and Deep Learning
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Learning Objectives:

- Ø To familiarize students with a broad cross-section of models and algorithms for machine learning.
- Ø To snake them Understanding key concepts related to Deep Learning.
- To train them to practice deep learning.

Learning Outcomes:

1. Resolve fundamental issues and challenges of machine learning: data,model selection,model complexity ,etc.
2. design and implement various machine learning
3. Practice deep learning algorithms in a range of real world application

Semester V

Course Code: SBIT505	Course Title: Enterprise Java
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Learning Objectives:

- Ø To train them in Learning use of database
- To make them Understanding web development
- To help them in designing database.

Learning Outcomes:

- performAdvanced concepts and frameworks for web development
- Use different data base
- Design new databases based on a topic.

Semester V

Course Code: SBIT501PR	Course Title: Project Dissertation and Implementation
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Objectives

- To help to understand about a) Background
- b) Objectives and Purpose of a topic.
- 2. To train them about Scope, and Applicability Achievements in an organisation
- 3. To aware about SURVEY OF TECHNOLOGIES

Outcomes

- 1. Define a) Background
- b) Objectives and Purpose of a topic.

2. summarize Scope, and Applicability Achievements in an organisation
3. Practice SURVEY OF TECHNOLOGIES

Semester V

Course Code: SBIT502PR	Course Title: Physical Computing and IoT Programming Practical
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Objectives

Starting Raspbian OS, Familiarising with Raspberry Pi Components and interface, Connecting to ethernet, Monitor, USB.

1. To make them perform Displaying different LED patterns with Raspberry Pi.
2. To train them in Displaying Time over 4-Digit 7-Segment Display using Raspberry Pi
3. To train them to handle Raspberry Pi Based Oscilloscope

Outcomes

4. perform Displaying different LED patterns with Raspberry Pi.
5. Use methods in Displaying Time over 4-Digit 7-Segment Display using Raspberry Pi
6. handle Raspberry Pi Based Oscilloscope

Semester V

Course Code: SBIT503PR	Course Title: : Mobile Application Development
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No Objectives or Outcomes

1. To train them Working with basic C# and ASP.NET
 - a) Create an application that obtains four int values from the user and displays the product.
 2. To help them to Create an application to demonstrate String Operations
 3. To help them to design an application that receives the following information from a set of students:StudentId,StudentName,CourseName,Date of Birth.

Outcome

1. Create an application that obtains four int values from the user and displays the product.
- b) design an application to demonstrate String Operations
- c) Create an application that receives the following information from a set of students:StudentId,StudentName,CourseName,Date of Birth.

Semester V

Course Code: SBIT504PR	Course Title: : Machine Learning and Deep Learning Practical
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Learning Objectives

- To help students to use Graphical user interface and command line interface and processes
- To help them to Exploring the graphical desktop.
- To train them to follow The command line interface

Learning Outcomes

use Graphical user interface and command line interface and processes
Explore the graphical desktop.
Practice The command line interface

Semester V

Course Code: SBIT505PR	Course Title: : Enterprise Java Practical
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Learning Objectives:

1. To train them to Implement the following Simple Servlet Applications
2. To inculcate knowledge on Create a simple calculator application using servlet.
3. To train them to Create a servlet for a login page. If the username and password

Learning Outcomes:

1. Implement the following Simple Servlet Applications
2. Create a simple calculator application using servlet.
3. Create a servlet for a login page. If the username and password are correct then it says message "Hello<username>" else a message "login failed"

Semester VI

Course Code: SBIT601	Course Title: Enterprise Resource Planning
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Learning Objectives:

- Ø To provide a contemporary and forward-looking on the theory and practice of Enterprise Resource Planning Technology.
- Ø To focus on a strong emphasis upon practice of theory in Applications.
- Ø To train the students to develop the basic understanding of how ERP enriches the business organizations in achieving a multidimensional growth.
- Ø To aim at preparing the students technological competitive and make them ready to self-upgrade with the higher technical skills.

Learning Outcomes:

Make basic use of Enterprise software, and its role in integrating business functions, Analyse the strategic options for ERP identification and adoption. Design the ERP implementation strategies. Create reengineered business processes for successful ERP implementation.

Semester VI

Course Code: SBIT602	Course Title: Cloud Computing
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Learning Objectives:

- Ø To help them to study the importance of cloud in E-commerce.

Ø to train them to Exploring reference model for cloud

3. To sensitize them with the disadvantages of clouds.

Learning Outcomes:

Ø store, manage, process, share, collaborate data and information with high speed and accuracy.

Ø use Platform as a Service, Infrastructure as a service and Software as Service

Summarize the new ways you can use to program, develop, deploy and provide application access to the users

Semester VI

Course Code: SBIT603	Course Title: AI and Soft Computing
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Learning Objectives:

Ø To make them Understanding what is AI

Ø to train them on Various search methods

Ø to inculcate knowledge representation methods

Learning Outcomes:

Ø Explain what constitutes “AI” and how to identify systems with AI

Ø Explain how AI enables capabilities that are beyond conventional technology

Ø Use classical AI techniques such as search algorithms, neural networks, tracking ,robot localisation

Semester VI

Course Code: SBIT604	Course Title: Big Data and Next Generation
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Learning Objectives:

- To make them know the opportunities that has contributed to the launch of the big data era.
- To train them with Technologies used to handle big data.
- To make them aware about MongoDB : a next gen technology

Learning Outcomes:

Students will thoroughly learn basic and advanced analytic techniques for manipulating and analyzing data.

1. Use the opportunities that has contributed to the launch of the big data era.
- perform experiment on Technologies used to handle big data.
 - practice MongoDB : a next gen technology

Semester VI

Course Code: SBIT605	Course Title: Cybersecurity
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Learning Objectives:

- Ø To train them to evaluate the security of and identify vulnerabilities in systems.
To make them aware about networks or system infrastructure.
- Ø To sensitize them about exploit any vulnerabilities to determine whether unauthorized access or other malicious activities are possible.

Learning Outcomes:-

- Ø Plan a vulnerability assessment and penetration test for a network.
- Ø Execute a penetration test using standard hacking tools in an ethical manner.

Identify legal and ethical issues related to vulnerability and penetration testing.

evaluate the security of and identify vulnerabilities in systems, networks or system infrastructure.

Semester VI

Course Code: SBIT601PR	Course Title: Project Dissertation and Implementation
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Learning Objectives:

1. **TO train them to write** Original Copy of the Approved Proforma of the Project Proposal Certificate of Authenticated work
2. To make them aware about Role and Responsibility Form Abstract
3. To help them to understand about significance of chapters.

Learning Outcomes:

1. **Write** Original Copy of the Approved Proforma of the Project Proposal Certificate of Authenticated work
2. summerize Role and Responsibility Form Abstract
3. summerize significance of chapters.

Semester VI

Course Code: SBIT602PR	Course Title: Cloud Computing Practical
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Learning Objectives:

1. To help them in showing how to create a datacenter with one host and run one cloudlet on it.
2. To train them how to create two datacenters with one host and a network topology each and run two cloudlets on them.
3. To inculcate knowledge on how to create two datacenters with one host each and run cloudlets of two users with network topology on them.

Learning Outcomes:

1. how to create a datacenter with one host and run one cloudlet on it.
2. create two datacenters with one host and a network topology each and run two cloudlets on them.
3. Differentiate two datacenters with one host each and run cloudlets of two users with network topology on them.

Semester VI

Course Code: SBIT603PR	Course Title: AI and Soft Computing Practical
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Learning Objectives:

1. to mak ethem Write a program to simulate 4-Queen / N-Queenproblem.
2. To train them to Write a program to implement BFS & DFS
3. To help theme to run program to implement alpha beta search.
(b) Write a program for Hill climbing problem. (c) A * algorithm

Learning Outcomes:

1. Write a program to simulate 4-Queen / N-Queen problem.
2. Write a program to implement BFS & DFS
3. Run program to implement alpha beta search.

Semester VI

Course Code: SBIT604PR	Course Title: Big Data and Next Generation Practical
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Learning Objectives:

- 1) to train them in Installation of hadoop.
- 2) To help them to Implement the following file management tasks in Hadoop: Adding files and directories , Retrieving files , Deleting files
- 3) to train them to Demonstrate mapreduce programs:

Learning Outcomes:

- 2) Implement the following file management tasks in Hadoop: Adding files and directories , Retrieving files , Deleting files
- 3) Demonstrate mapreduce programs:
 - a) Write a mapreduce program for word count.
 - b) Write a mapreduce program to find maximum temperature.
- 4) Demonstrate Hive queries on the following:
 - a) Built-in operators
 - b) Built-in functions
 - c) Aggregation functions
 - d) User defined function

Semester VI

Course Code: SBIT605PR	Course Title: Cybersecurity Practical
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Learning Objective:

1. To make them Study of Active and passive information gathering, such as server operating system, services running on that server, open ports, IP check, Reverse IP Check using information gathering tools like WHOIS.
2. To help them Study of different Enumeration tools for different Enumeration techniques as Enumeration using email id, Enumeration using default password, DNS Enumeration, NETBIOS Enumeration.
3. To sensitize with Social Engineering attacks using Social Engineering Toolkit.

Learning Outcome:

1. Differentiate Active and passive information gathering, such as server operating system, services running on that server, open ports, IP check, Reverse IP Check using information gathering tools like WHOIS.
2. Enumerate tools for different Enumeration techniques as Enumeration using email id, Enumeration using default password, DNS Enumeration, NETBIOS Enumeration.
3. Apply knowledge on Social Engineering attacks using Social Engineering Toolkit.