

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE



DEPARTMENT OF COMPUTER SCIENCE

**B.Sc (Computer science) &
B.Com (Computer Applications)**

Course Objectives and Learning Outcomes

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I B.Sc, I Semester
Paper: Programming in C

Course Description:

The course is designed to provide complete knowledge of C language. Students will be able to develop logics which will help them to create programs, applications in C. Also by learning the basic programming constructs they can easily switch over to any other language in future.

Course Objectives:

- The course is oriented to those who want to advance structured and procedural programming understating and to improve C programming skills.
- The major objective is to provide students with understanding of code organization and functional hierarchical decomposition with using complex data types.

Learning Outcomes:

After course completion the students will have the following learning outcomes:

- Understanding a functional hierarchical code organization.
- Ability to work with textual information, characters and strings.
- Ability to work with arrays of complex objects.
- Understanding the framework of functional model.
- Understanding a concept of functional hierarchical code organization.
- Understanding a defensive programming concept.
- Ability to handle possible errors during program execution

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I B.Sc, II Semester
Paper: Programming in C++

Course Description:

C++ Programming is intended for software engineers, systems analysts, program managers and user support personnel who wish to learn the C++ programming language.

Course Objectives:

The course objectives of this course are:

- To understand how C++ improves C with object-oriented features.
- To learn the syntax and semantics of the C++ programming language.
- To learn how to design C++ classes for code reuse.
- To learn how to implement copy constructors and class member functions.
- To understand the concept of data abstraction and encapsulation.
- To learn how containment and inheritance promote code reuse in C++.
- To learn how inheritance and virtual functions implement dynamic binding with polymorphism.
- To learn how to use exception handling in C++ programs.

Learning Outcomes:

At the end of the course the students are able to:

- Understand the difference between the top-down and bottom-up approach.
- Describe the object-oriented programming approach in connection with C++.
- Apply the concepts of object-oriented programming.
- Illustrate the process of data file manipulations using C++.
- Apply virtual and pure virtual function & complex programming situations.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II B.Sc, I Semester
Paper: Data Structures using C++

Course Description:

The course is designed to develop skills to design and analyze simple linear and non linear data structures. It strengthen the ability to the students to identify and apply the suitable data structure for the given real world problem. It enables them to gain knowledge in practical applications of data structures.

Course Objectives:

- To provide the knowledge of basic data structures and their implementations.
- To understand importance of data structures in context of writing efficient programs.
- To develop skills to apply appropriate data structures in problem solving.

Learning Outcomes:

At the end of the course the students are able to:

- Understand the concept of Dynamic memory management, data types, algorithms, Big O notation.
- Understand basic data structures such as arrays, linked lists, stacks and queues.
- Describe the hash function and concepts of collision and its resolution methods
- Solve problem involving graphs, trees and heaps
- Apply Algorithm for solving problems like sorting, searching, insertion and deletion of data.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II B.Sc, II Semester
Paper: Database Management Systems

Course Description:

This course introduces the core principles and techniques required in the design and implementation of database systems. This introductory application-oriented course covers the relational database systems RDBMS - the predominant system for business scientific and engineering applications at present.

Course Objectives:

- To explain basic database concepts, applications, data models, schemas and instances.
- To demonstrate the use of constraints and relational algebra operations.
- IV. Describe the basics of SQL and construct queries using SQL.
- To emphasize the importance of normalization in databases.
- To facilitate students in Database design
- To familiarize issues of concurrency control and transaction management.

Learning Outcomes:

At the end of the course the students are able to:

- Apply the basic concepts of Database Systems and Applications.
- Use the basics of SQL and construct queries using SQL in database creation and interaction.
- Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.
- Analyze and Select storage and recovery techniques of database system.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
III B.Sc, I Semester
Paper: Programming in Java

Course Description:

This course introduces computer programming using the JAVA programming language with object-oriented programming principles.

Course Objectives:

- To understand the concepts and features of object oriented programming.
- To examine key aspects of java Standard API library such as util, io, applets, swings, GUI based controls.
- To learn java's exception handling mechanism, multithreading, packages and interfaces.
- To develop skills in internet programming using applets and swings.

Learning Outcomes:

At the end of this course the students will be able:

- To apply object oriented programming features and concepts for solving given problem.
- To use java standard API library to write complex programs.
- To implement object oriented programming concepts using java.
- To develop interactive programs using applets and swings.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
III B.Sc, II Semester
Paper: Web Technologies

Course Description:

This course is intended to teach the basics involved in publishing content on the World Wide Web. This includes the 'language of the Web' – HTML.

Course Objectives:

- To know the fundamentals of how the Internet and the Web function.
- To know the basic understanding of graphic production with a specific stress on creating graphics for the Web, and a general grounding introduction to more advanced topics such as programming and scripting.
- This will also expose students to the basic tools and applications used in Web publishing.

Learning Outcomes:

The student will be able to:

- Analyze a web page and identify its elements and attributes.
- Create web pages using XHTML and Cascading Style Sheets.
- Build dynamic web pages using JavaScript (Client side programming).
- Create XML documents and Schemas.
- Build interactive web applications using CSS.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I B.Com, I Semester
Paper: Fundamentals of Information Technology

Course Description:

The main objective is to introduce IT in a simple language to all undergraduate students, regardless of their specialization.

Course Objectives:

- It will help them to pursue specialized programs leading to technical and professional careers and certifications in the IT industry.
- The focus of the subject is on introducing skills relating to IT basics, computer applications, programming, interactive media, Internet basics etc.

Learning Outcomes:

At the end of this course, student should be able to

- Understand basic concepts and terminology of information technology.
- Have a basic understanding of personal computers and their operations.
- Be able to identify issues related to information security.

**SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE**

I B.Com, II Semester

Paper: Programming with C & C++

Course Description:

The main objective of this course is to train students with basic concepts of programming using C

Course Objectives:

- To provide a comprehensive study of the C programming language.
- To identify problems that requires programmed solution.
- To study, analyze and implement pointers, memory allocation, data handling through files in 'C'.

Learning Outcomes:

By the end of the course students will be able to

- Write programs using advance concepts of C- language.
- Understand and apply the pointers, memory allocation techniques
- Use of files for dealing with variety of problems.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II B.Com, III Semester
Paper: Relational Database Management Systems

Course Description:

This course introduces the core principles and techniques required in the design and implementation of database systems. This introductory application-oriented course covers the relational database systems RDBMS.

Course Objectives:

- To explain basic database concepts, applications, data models, schemas and instances.
- To demonstrate the use of constraints and relational algebra operations.
- IV. Describe the basics of SQL and construct queries using SQL.
- To emphasize the importance of normalization in databases.
- To facilitate students in Database design
- To familiarize issues of concurrency control and transaction management.

Learning Outcomes:

At the end of the course the students are able to:

- Apply the basic concepts of Database Systems and Applications.
- Use the basics of SQL and construct queries using SQL in database creation and interaction.
- Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.
- Analyze and Select storage and recovery techniques of database system.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II B.Com, IV Semester
Paper: Web Technologies

Course Description:

On completion of this course, Students will gain the skills and project-based experience needed for entry into web application and development careers.

Course Objectives:

- To know the fundamentals of how the Internet and the Web function.
- To know the basic understanding of graphic production with a specific stress on creating graphics for the Web, and a general grounding introduction to more advanced topics such as programming and scripting.
- This will also expose students to the basic tools and applications used in Web publishing.

Learning Outcomes:

The student will be able to:

- Develop a dynamic webpage by the use of java script and Students will be able to connect a java program to a DBMS and perform insert,
- Students will be able to write a well formed / valid XML document DHTML.
- Update and delete operations on DBMS table.
- Write a server side java application called JSP to catch form.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II B.Com, V Semester
Paper: Management of Information Systems

Course Description:

The main objective of this course is to introduce to management information systems and the importance of systems in achieving organizational goals.

Course Objectives:

- Apply sound managerial concepts and principles in the development and operation of information systems
- Apply systems analysis, IS design and project management concepts effectively
- Improve business processes through the effective application of information technology concepts and practices.

Learning Outcomes:

After completion of the course, students will be able to:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Support the delivery, use, and management of information systems within an information systems environment.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II B.Com, IV Semester
Paper: Multimedia Systems

Course Description:

The objective of this course is to teach the principles of how different types of media can be processed and presented by computers. It introduces how multimedia can be used in various application areas.

Course Objectives:

- The focus of this course will be on the integration of text, images, animation, audio, and video into Web-based applications.
- Students will learn to create programming scripts for interactive user interfaces and complex components.
- Students will learn how to deploy multimedia applications over multiple platforms, and object-based scripting.

Learning Outcomes:

After Completion of the course, students should able to:

- Create a well-designed, interactive Web site with respect to current standards and practice.
- Demonstrate in-depth knowledge in an industry-standard multimedia development tool and its associated scripting language.
- Determine the appropriate use of interactive verses standalone Web applications.
- Create time-based and interactive multimedia components Identify issues and obstacles encountered by Web authors in deploying Web-based applications.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE



DEPARTMENT OF COMPUTER SCIENCE
M.Sc (Computer science)

Course Objectives and Learning Outcomes

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), I Semester
Paper: Discrete Mathematics

Course Description:

Throughout the course, students will be expected to demonstrate their understanding of Discrete Mathematics.

Course Objectives:

The main objectives of the course are to:

- Introduce concepts of mathematical logic for analyzing propositions and proving theorems.
- Use sets for solving applied problems, and use the properties of set operations algebraically.
- Work with relations and investigate their properties.
- Investigate functions as relations and their properties.
- Introduce basic concepts of graphs, digraphs and trees.

Learning Outcomes:

After completion of the course students are expected to be able to:

- Analyze logical propositions via truth tables.
- Prove mathematical theorems using mathematical induction.
- Understand sets and perform operations and algebra on sets.
- Determine properties of relations, identify equivalence and partial order relations, sketch relations.
- Define graphs, digraphs and trees, and identify their main properties.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), I Semester
Paper: OOPs with Java

Course Description:

This course provides an introduction to the Java language and object-oriented programming, including an overview of Java syntax.

Course Objectives:

This course will enable students to:

- Understand the basic concepts of object-oriented programming and difference between procedure-oriented Programming and Object-Oriented Programming.
- Get a clear understanding of basics of java programming.
- Analyze the concepts of Inheritance, Exception and Packages in java.
- Learn how GUI can be designed and developed in Java using Applets and Swings.
- Study how to handle events and multi-threaded programming in java.

Learning Outcomes:

After Completion of the course, students will be able to:

- Analyze and explain the behaviour of simple programs involving fundamental programming constructs.
- Develop and analyze programs for solving simple problems.
- Use a development environment to design, code, test and debug simple programs including multi-file source projects in an object-oriented programming.
- Implement basic error handling.
- Use APIs to design programs.



SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), I Semester
Paper: Operating Systems

Course Description:

This course covers the classical internal algorithms and structures of operating systems, including CPU scheduling, memory management, and device management.


Course Objectives:

Students will learn

- How Operating System is Important for Computer System.
- To make aware of different types of Operating System and their services.
- To learn different process scheduling algorithms and synchronization techniques to achieve better.
- Performance of a computer system.
- To know virtual memory concepts.
- To learn secondary memory management.

Learning Outcomes:

After completion of this course student will be able to

- Exposure to different OS .
 - Awareness of concepts of multiprogramming, multithreading and multitasking .
 - Demonstration of memory management algorithms.
 - Demonstration of file-handling concepts by implementing suitable algorithms.
 - Awareness of computational issues, resources in distributed environment.
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SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), I Semester
Paper: Computer Networks

Course Description:

The main objective is to introduce Computer Networks in a simple language to all undergraduate students, regardless of their specialization.

Course Objectives:

- It will help students in understanding of various types of computer networks, technologies behind networks and application protocols, e-mail and communication protocols will be introduced to students through this subject.
- It will help them to pursue specialized programs leading to technical and professional careers and certifications in the Networking and Communication Industry.

Learning Outcomes:

After completion of this course, students will have the knowledge and skills to:

- Understand and describe the layered protocol model.
- Describe, analyse and evaluate a number of data link, network, and transport layer protocols.
- Program network communication services for client/server and other application layouts.
- Describe, analyse and evaluate various related technical, administrative and social aspects of specific computer network protocols from standards documents and other primary materials found through research.
- Design, analyse, and evaluate networks and services for homes, data centres, IoT, LANs and WANs.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), II Semester
Paper: Computer Organization

Course Description:

This course qualitatively and quantitatively examines computer design trade-offs, teaches the fundamentals of computer architecture and organization, including CPU, memory, registers, arithmetic unit, control unit, and input/output components.

Course Objectives:

- Discuss the basic concepts and structure of computers.
- Understand concepts of register transfer logic and arithmetic operations.
- Explain different types of addressing modes and memory organization.
- Learn the different types of serial communication techniques
- Summarize the Instruction execution stages

Learning Outcomes:

After completion of this course, students will have the knowledge and skills to:

- Understand the theory and architecture of central processing unit.
- Analyze some of the design issues in terms of speed, technology, cost, performance.
- Design a simple CPU with applying the theory concepts.
- Use appropriate tools to design verify and test the CPU architecture.
- Understand the architecture and functionality of central processing unit.
- Exemplify in a better way the I/O and memory organization.
- Define different number systems, binary addition and subtraction, 2's complement representation and operations with this representation.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), II Semester
Paper: Advanced Java

Course Description:

This course emphasis on foundation technologies in Java that enable you to write server side programs in Java.

Course Objectives:

- To understand the concepts of network programming concepts like socket programming, RMI etc.
- To learn the creation of pure Dynamic Web Application using JDBC.
- To learn JavaScript for creating dynamic websites.
- To learn Server-Side Programming using servlets and Java Server Pages.

Learning Outcomes:

At the end of this course student will:

- Implement network based applications using features of network programming.
- Develop web applications easily and effectively.
- Apply the concepts of server side technologies using servlets and JSP for dynamic web applications.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), II Semester
Paper: Unix Network Programming

Course Description:

This course is designed to introduce advanced concepts of programming and software development in UNIX-based computing environments.

Course Objectives:

The main objectives of this lab is to impart the students with hands of experience on

- Unix system calls
- Unix Inter Process communication
- Remote Procedure Call
- Socket programming
- Process Synchronization.

Learning Outcomes:

After completion of this course, students will have the knowledge and skills to:

- Experience with C language.
- Experience with Unix System Calls.
- Experience with Inter Process communication System Calls.
- Experience with Inter Process communication System calls.
- Experience with TCP/UDP photocells.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
I M.Sc(CS), II Semester
Paper: Software Engineering

Course Description:

Software Engineering (SE) comprises the core principles consistent in software construction and maintenance.

Course Objectives:

- Knowledge of basic SW engineering methods and practices, and their appropriate application.
- Describe software engineering layered technology and Process framework.
- Understanding of software requirements and the SRS documents.
- Understanding of the role of project management including planning, scheduling, risk management, etc.
- Understanding of different software architectural styles.
- Understanding of implementation issues such as modularity and coding standards.
- Understanding on quality control and how to ensure good quality software.

Learning Outcomes:

After completion of this course, students will have the knowledge of:

- Basic knowledge and understanding of the analysis and design of complex systems.
- Ability to apply software engineering principles and techniques.
- Ability to develop, maintain and evaluate large-scale software systems.
- To produce efficient, reliable, robust and cost-effective software solutions.
- Ability to perform independent research and analysis.
- Ability to understand and meet ethical standards and legal responsibilities.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), I Semester
Paper: Automata Theory and Formal Languages

Course Description:

This course focuses on the basic theory of Computer Science and formal methods of computation like automata theory.

Course Objectives:

- Understand basic properties of formal languages and formal grammars.
- Understand basic properties of deterministic and nondeterministic finite automata.
- Understand the relation between types of languages and types of finite automata.
- Understanding the Context free languages and grammars, and also Normalising CFG.
- Understand basic properties of Turing machines and computing with Turing machines.
- Understand the concept of Pushdown automata and its application.

Learning Outcomes:

The student will be able to:

- Understand the basic properties of formal languages and grammars.
- Differentiate regular, context-free and recursively enumerable languages.
- Make grammars to produce strings from a specific language.
- Acquire concepts relating to the theory of computation and computational models including decidability and intractability.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), I Semester
Paper: Data Warehousing and Mining

Course Description:

This course is focuses to extract knowledge from data repository for data analysis, frequent pattern, classification and prediction.

Course Objectives:

- Be familiar with mathematical foundations of data mining tools.
- Understand and implement classical models and algorithms in data warehouses and data mining.
- Characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering.
- Master data mining techniques in various applications like social, scientific and environmental context.
- Develop skill in selecting the appropriate data mining algorithm for solving practical problems.

Learning Outcomes:

After the completion of this course, students will be able to:

- Understand the functionality of the various data mining and data warehousing component Knowledge.
- Appreciate the strengths and limitations of various data mining and data warehousing models.
- Explain the analyzing techniques of various data Analyze.
- Describe different methodologies used in data mining and data warehousing. Analyze.
- Compare different approaches of data ware housing and data mining with various technologies.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), I Semester
Paper: Python Programming

Course Description:

Python Programming is intended for software engineers, systems analysts, program managers and user support personnel who wish to learn the Python programming language.

Course Objectives:

The objectives of this course include:

- Teach an example of scripting and interpretative language and compare it with classical compiled programming languages .
- Introduce the student to Python programming fundamentals.
- Expose students to application development and prototyping using Python .
- Learn to apply fundamental problem solving techniques.
- Learn to implement GUI applications.

Learning Outcomes:

At the end of this course students will able to:

- Understand principles of Python.
- Understand the pros and cons on scripting languages vs. classical programming languages (at a high level).
- Understand object oriented programming.
- Implement GUI applications easily.
- Understand how Python can be used for application development as well as quick networking, and game programming.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), I Semester
Paper: PHP Programming

Course Description:

The objective of this course is to provide the necessary knowledge to design and develop dynamic, database-driven web applications using PHP version

Course Objectives:

- Build dynamic Web applications.
- Semantics and syntax of the PHP language, including discussion on the practical problems that PHP solves.
- Write server-side cross-platform HTML-embedded scripts to implement dynamic Web pages that interact with databases and files.
- Understand how server-side programming works on the web.

Learning Outcomes:

After completion of this course, students will able to:

- Describe fundamentals of web.
- Introduce the creation of static webpage using HTML.
- Describe the importance of CSS in web development.
- Describe the function of JavaScript as a dynamic webpage creating tool.
- Distinguish PHP as a server side programming language.
- Outline the principles behind using MySQL as a backend DBMS with PHP.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), II Semester
Paper: Artificial Intelligence

Course Description:

This course provides an introduction to the fundamentals of artificial intelligence.

Course Objectives:

- To impart knowledge about Artificial Intelligence.
- To give understanding of the main abstractions and reasoning for intelligent systems.
- To enable the students to understand the basic principles of Artificial Intelligence in various applications.
- To acquire knowledge on intelligent systems and agents, formalization of knowledge, reasoning with and without uncertainty, machine learning and applications at a basic level.

Learning Outcomes:

Upon Completion of this course the student will be able to:

- List the objectives and functions of modern Artificial Intelligence.
- Categorize an AI problem based on its characteristics and its constraints.
- Understand and implement search and adversarial (game) algorithms.
- Have a glance at machine learning algorithms and extracting knowledge models from data.
- Learn different logic formalisms and decision taking in planning problems.
- Learn how to analyze the complexity of a given problem and come with suitable optimizations.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), II Semester
Paper: Cryptography and Network Security

Course Description:

This course enable the students to learn fundamental concepts of computer security and cryptography and utilize these techniques in computing systems.

Course Objectives:

- To understand basics of Cryptography and Network Security.
- To be able to secure a message over insecure channel by various means.
- To learn about how to maintain the Confidentiality, Integrity and Availability of a data.
- To understand various protocols for network security to protect against the threats in the networks.

Learning Outcomes:

After completion of this course, students will able to:

- Understand the most common type of cryptographic algorithm.
- Understand the Public-Key Infrastructure.
- Understand security protocols for protecting data on networks.
- Be able to digitally sign emails and files.
- Understand vulnerability assessments and the weakness of using passwords for authentication.
- Be able to perform simple vulnerability assessments and password audits.
- Be able to configure simple firewall architectures.

SINGARENI COLLIERIES WOMEN'S DEGREE & PG COLLEGE
DEPARTMENT OF COMPUTER SCIENCE
II M.Sc (CS), II Semester
Paper: Big Data Analytics

Course Description:

This course gives an overview of Big Data, i.e. storage, retrieval and processing of big data

Course Objectives:

- To study the basic technologies that forms the foundations of Big Data.
- To study the programming aspects of cloud computing with a view to rapid prototyping of complex applications.
- To understand the specialized aspects of big data including big data application, and big data analytics.
- To study different types Case studies on the current research and applications of the Hadoop and big data in industry.

Learning Outcomes:

After completion of this course, students will be able to :

- Understand the building blocks of Big Data.
- Articulate the programming aspects of cloud computing(map Reduce etc).
- Understand the specialized aspects of big data with the help of different big data applications.
- Represent the analytical aspects of Big Data.
- Know the recent research trends related to Hadoop File System, MapReduce and Google File System etc.