8A2200203-PROBABILITY AND STATISTICS	
CO1	Student will be able to Find the measures of central tendency and relation between them.(L1)
CO2	Student will be able to Evaluate the correlation coefficient, rank coefficient and regression.(L5)
CO3	Students will be able to Understand probabilities of events and expectations of random variables for elementary problems.(L2)
CO4	Students will be able to Solve problems related to binomial and passion distribution.(L3)
CO5	Student will be able to Compare situations in which it is appropriate to consider the relevance of the Normal distribution.(L4)
CO6	Student will be able to Construct hypothesis and carryout appropriate tests to checks its acceptability.(L3)

18A2205401- WEB TECHNOLOGIES AND ADVANCED JAVA PROGRAMMING	
CO1	Student able to Implement and design web based applications using features of HTML
CO2	Implement web based applications using features of XML
CO3	Student will Apply the concepts of server side technologies for dynamic web applications
CO4	Ability to design the web based applications using effective data base access with rich client interaction
CO5	Ability to Develop reusable component for Graphical User Interface applications

18A2205402- SOFTWARE ENGINEERING	
CO1	Understand the basic concepts of Software engineering, applications, agile
	development and compare different software process models.
CO2	Analyze the principles of requirement engineering
CO3	Create architectural design for a given project.
CO4	Apply different testing techniques

18A2205403- COMPUTER ORGANIZATION	
CO1	Able to understand the basic components and the design of CPU, ALU and Control unit
CO2	Students can calculate the effective address of an operand by addressing modes
CO3	Ability to understand memory hierarchy and its impact on computer cost/performance
CO4	Ability to understand the advantage of instruction level parallelism and pipelining for high performance Processor design.

	E- MICROPROCESSOR AND ITS APPLICATIONS	
CO1	To Describe the basics of 8086 microprocessors architectures and its	
	Functionalities	

CO2	To Design and develop 8086 Microprocessor based systems for real time applications using low level language like ALP
CO3	To Analyze 8051 microcontrollers architectures and its functionalities
CO4	To Describe the importance of Timers/Counters and Serial ports of 8051 microcontroller
CO5	To Describe the basics of ARM and ARM7 architecture and its functionalities
CO6	To Interface external peripherals and I/O devices and program the 8051 microcontroller

### 1. Computer Networks

1.	Will be able to understand OSI and TCP/IP models, various topologies and LAN, MAN, WAN Technologies and example networks
2.	Will be able to identify characteristics of Transmission Media and Classify various
	Multiplexing and Switching Techniques
3.	Will be able to calculate block coding techniques for EDC and ECC along with various
	data link control protocols.
4.	Will be able to locate the different channel allocation problems, and design various CSMA
	and controlled Access Protocols and Routing protocols.
5.	Will be able to identify various MAC sub layer protocols in wired and wireless LANs.
6.	Will be able to analyze various application layer protocols for WWW and wireless web.

## 2. Data Mining Theory:

1. Understand stages in building a Data Warehouse
---

- 2.Understand the need and importance of reprocessing techniques
- 3. Analyze tree based classification algorithms
- 4. Apply and analyze Bayesian classifiers
- 5. Analyze and evaluate performance of algorithms for Association Rules.
- 6. Apply various Clustering algorithms and analyze results

1. The data mining process and important issues around data cleaning, pre-processing and integration.

2. The principle algorithms and techniques used in data mining, such as clustering, association mining, classification and prediction

## 3. Web Technologies Theory:

- 1. Analyze a web page and identify its elements and attributes.
- 2. Create web pages using XHTML and Cascading Styles sheets.
- 3. Build dynamic web pages.
  - 4. Build web applications using PHP.
  - 5. Programming through PERL and Ruby
  - 6. Write simple client-side scripts using AJAX

#### Lab:

Students will be able to develop static web sites using XHTML and Java Scripts
To implement XML and XSLT for web applications
Develop Dynamic web content using Java Servlets and JSP
To develop JDBC connections and implement a complete Dynamic web Application

## 4. Software Testing Methodologies

#### Theory:

1. Able To Understand Basic Testing Concepts And Models In Testing.

2. Able To Explore Basic Testing Techniques And Strategies.

3. Have Basic Understanding And Knowledge Of Contemporary Issues Like Component And Interface Testing.

4. Able To Support In Generating Test Cases And Test Suites.

5. Have Basic Understanding And Knowledge About Graphs And Matrix Relations

6. Apply Testing Methods And Tools To Resolve The Problems In Real Time Environment.

#### Lab:

- 2. Solve specific problems alone or in teams
- 3. Manage a project from beginning to end
- 4. Work independently as well as in teams
- 5. Define, formulate and analyze a problem

### 5. Embedded Systems

- 1. Describe the differences between general computing system and the embedded systems, also recognize the classification of embedded systems, core of the embedded systems and need for communication interfaces.
- 2. Understand characteristics of embedded system, design metrics of embedded system, microcontroller architecture, memory organization and registers.
- 3. Understand RTOS, RTOS principles, kernel, tasks, threads, multitasking and multiprocessing.
- 4. Understand kernel objects; inter task communication-pipes, signals, message queues, dead lock, and live lock.
- 5. Understand semaphores, mutex, priority inversion, priority ceiling, design, implement and test an embedded system.
- 6. Use embedded software development tools, understand unique design problems and challenges of real time systems.

### 6. IPR & Patents

- Skill to understand the concept of intellectual property rights. 2. Develops procedural knowledge to Legal System and solving the problem relating to intellectual property rights. 3. Skill to pursue the professional programs in Company Secretary ship
  Develops procedural knowledge to Legal System and solving the problem relating to intellectual
- property rights
- 3. Skill to pursue the professional programs in Company Secretary ship, Law, Business(MBA), International Affairs, Public Administration and Other fields

- 4. Employability as the Compliance Officer, Public Relation Officer and Liaison Officer
- 5. Establishment of Legal Consultancy and service provider.
- 6. Analyze ethical and professional issues which arise in the intellectual property law context

# **Course Outcomes:**

18A2200203-PROBABILITY AND STATISTICS	
CO1	Student will be able to Find the measures of central tendency and relation between them.(L1)
CO2	Student will be able to Evaluate the correlation coefficient, rank coefficient and regression.(L5)
CO3	Students will be able to Understand probabilities of events and expectations of random variables for elementary problems.(L2)
CO4	Students will be able to Solve problems related to binomial and passion distribution.(L3)
CO5	Student will be able to Compare situations in which it is appropriate to consider the relevance of the Normal distribution.(L4)
CO6	Student will be able to Construct hypothesis and carryout appropriate tests to checks its acceptability.(L3)

18A	18A2205401- WEB TECHNOLOGIES AND ADVANCED JAVA PROGRAMMING	
CO1	Student able to Implement and design web based applications using features of HTML	
CO2	Implement web based applications using features of XML	
CO3	Student will Apply the concepts of server side technologies for dynamic web applications	
CO4	Ability to design the web based applications using effective data base access with rich client interaction	
CO5	Ability to Develop reusable component for Graphical User Interface applications	

18A2205402- SOFTWARE ENGINEERING	
CO1	Understand the basic concepts of Software engineering, applications, agile
	development and compare different software process models.
CO2	Analyze the principles of requirement engineering
CO3	Create architectural design for a given project.
CO4	Apply different testing techniques

18A2205403- COMPUTER ORGANIZATION		
CO1	Able to understand the basic components and the design of CPU, ALU and Control unit	
CO2	Students can calculate the effective address of an operand by addressing modes	

CO3	Ability to understand memory hierarchy and its impact on computer cost/performance
CO4	Ability to understand the advantage of instruction level parallelism and pipelining for high performance Processor design.

<b>OE- MICROPROCESSOR AND ITS APPLICATIONS</b>		
CO1	To Describe the basics of 8086 microprocessors architectures and its	
	Functionalities	
CO2	To Design and develop 8086 Microprocessor based systems for real time	
	applications using low level language like ALP	
CO3	To Analyze 8051 microcontrollers architectures and its functionalities	
CO4	To Describe the importance of Timers/Counters and Serial ports of 8051 microcontroller	
CO5	To Describe the basics of ARM and ARM7 architecture and its functionalities	
CO6	To Interface external peripherals and I/O devices and program the 8051 microcontroller	