Bhavan's Vivekananda College

of Science, Humanities and Commerce
(Sainikpuri, Secunderbad, Telangana – 500094)
Autonomous College – Affiliated to Osmania University
Accredited with 'A' Grade by NAAC

M.SC (COMPUTER SCIENCE)

Program Outcomes:

PO1 Knowledge: Apply knowledge of computing to produce effective design and solutions for specific problems.

PO2 Problem Solving: Use software development tools, software systems and modern computing platforms.

PO3 Skills: To improve the ability imparting knowledge in various domains and to solve real world problem with modern technological tools

PO4 Adaptability: Adapt to the fast changing world of information technology needs.

PO5 Communication: Communicate effectively on problems, issues and solutions with community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO6 Ethics & Environment: Apply ethical principles and commit to professional ethics and responsibilities and norms in research and the functional areas, understand the issues of environmental context and sustainable development.

PO7 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO8 Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio, economic and technological changes.

Program Specific Outcomes

PS01 Understand, analyse and develop computer programs in the areas related to algorithms, system software, compiler design.

PSO2 Adaptability in team work environment to develop application software.

PSO3 Global level research opportunities to pursue Ph.D. programme.

Course Outcomes:

Name of the Course	Advanced Java Programming
Course Code	CS101
CO1	Develop window based applications using AWT and swing.
CO2	Develop applications using JDBC and servlets.
CO3	Develop applications using JSP , JSF and EJB
CO4	Develop applications using Hibernate

Name of the Course	Operating Systems
Course Code	CS102
CO1	Understand the OS structures and process management issues.
CO2	Understand different CPU scheduling algorithms and deadlock handling methods.
CO3	Understand the Types of memory management and storage structures.
CO4	Understand different file systems, protection and security issues.

Name of the Course	Software Engineering
Course Code	CS103
CO1	Understand the basics of software, its process and types of process models
CO2	Interpret about Requirements Engineering, design concepts and Architectural styles of Software Engineering.
CO3	Analyze about Software Quality and software testing strategies.
CO4	Interpret about Software Configuration Management process, software Risks and reverse engineering.

Name of the Course	Discrete Mathematics
Course Code	CS104
CO1	The students would learn the concepts of logics and laws of Boolean Algebra.
CO2	The students will get acquainted with sets, division algorithm, and mathematical induction.
CO3	Students will be able to appreciate the very fine differences between permutations and combinations. They will be able to solve recurrence relations.
CO4	Students will be able to understand graph theory which is of great use in computers.

Name of the Course	Advanced Programming Java Lab
Course Code	CS105
CO1	Develop applications using Swings, JDBC and Servlets
CO2	Develop applications using JSP, JSF and Hibernate

Name of the Course	Operating Systems Lab
Course Code	CS106
CO1	Understand the shell related operations
CO2	Understand the procedure to perform OS functions with the help of C coding.

Name of the Course	Software Engineering Lab
Course Code	CS107
CO1	Attaining the knowledge on CASE tools usage.
CO2	Attaining the knowledge on different real world applications.

Name of the Course	Programming Using Python
Course Code	CS201
CO1	Develop programs using conditional and looping statements
CO2	Develop programs using functions, files and exceptions
C03	Develop programs using lists, tuples, strings, dictionaries and sets
CO4	Develop programs using object oriented concepts and using GUI controls

Name of the Course	Computer Networks
Course Code	CS202
CO1	Understand the basic security issues and classical encryption techniques.
CO2	Understand the Public Key Cryptosystems and how the keys are exchanged among different participating entities.
C03	Understand the Message Authentication algorithms and importance of Digital Signatures.
CO4	Understand various Hash Functions used in security and also about Email and IP Security.

Name of the Course	Design and Analysis of Algorithms
Course Code	CS203
CO1	Fundamentals of Algorithms and sorting and searching techniques.
CO2	Familiar with Divide-and-Conquer algorithms.
C03	Familiar with Dynamic programming and Greedy Method algorithms

CO4	Familiar with Backtracking and Branch and Bound related algorithms.

Name of the Course	**Automata Languages and Computations**
Course Code	**CS204**
CO1	Familiar with Fundamentals of Finite automata
CO2	Understand the regular expressions and conversions
C03	Acquire the knowledge of CFG and Pushdown automata
CO4	Designing Turing Machines

Name of the Course	**Programming Using Python Lab**
Course Code	**CS205**
CO1	Develop applications using conditional & looping statement, functions, files and exceptions
CO2	Develop applications using lists, tuples, dictionaries, sets, object oriented concepts and GUI controls

Name of the Course	**Computer Networks Lab**
Course Code	**CS206**
CO1	Understand the programming concepts of UDP, TCP Server and Client communication.
CO2	Understand the shortest path in networks and message simulation and routing implementation.

Name of the Course	**Design and Analysis of Algorithms Lab**
Course Code	**CS207**
CO1	Familiarity with different algorithm procedures related to system controls.
CO2	Understand the modern algorithm pseudo code implementation procedures.

Name of the Course	**C# Programming**
Course Code	**CS301**
CO1	Develop applications using classes and objects, console applications.
CO2	Develop programs using console applications and exception handlings.
C03	Develop programs using text file handling and Windows applications.
CO4	Develop programs using ASP.NET and ADO.NET with web controls.

Name of the Course		Computer Organization
Course Code		CS302
CO1	Understand Basic structure of digital computer and its functions.	
CO2	Understand digital components and micro operations	
C03	Understand Micro programming operations and CPU organization.	
CO4	Understand Memory organization and I/O device processing.	

Name of the Course		Big Data Analytics
Course Code		CS303(B)
CO1	Be familiar with Big Data Concepts	
CO2	Be familiar with Big Data Analytics	
C03	Be familiar with MapReduce fundamentals	
CO4	Acquire knowledge on the usage of Big Data Analytics in social media	

Name of the Course		Data Mining
Course Code		CS304(B)
CO1	Acquire knowledge on Data warehouse and OLAP operations.	
CO2	Acquire knowledge on Data mining and generating association rules from Frequent Pattern sets using algorithms	
C03	Acquire knowledge on classification methods and cluster analysis methods	
CO4	Acquire knowledge on outlier detection methods and data mining trends.	

Name of the Course		C# Programming Lab
Course Code		CS305P
CO1	Understand the development of windows and web based applications with properties setting.	
CO2	Understand to connect applications with different backends and with real time applications.	

Name of the Course		Computer Organization Lab
Course Code		CS306P
CO1	Understand to write Microprocessor programming.	
CO2	Understand to write Microcontroller programming.	

Name of the Course		Big Data Analytics Lab
Course Code		CS307(B)P
CO1	Familiar with No SQL and big data analysis with map reduce procedures.	

CO2	Understand how to analyse big data in real world applications.

Name of the Course	Compiler Design
Course Code	CS401
CO1	Be familiar with major concepts of language translation and compiler design.
CO2	Understand various phases of compiler and its use, code optimization techniques.
CO3	Be familiar with machine code generation and use of symbol table.
CO4	Acquire knowledge on parser by passing LL parser and LR parser.

Name of the Course	Cloud Computing
Course Code	CS402
CO1	Be familiar with major concepts related to traditional computing and cloud computing.
CO2	Understand virtualization and different types of clouds.
CO3	Be familiar with workflow engine process and performance predictions.
CO4	Acquire knowledge on Security, privacy and legal issues related to cloud environment.

Name of the Course	Mobile Computing
Course Code	CS403(A)
CO1	Be familiar with mobile environment structure and its types.
CO2	Understand wireless LAN and mobile network layer.
CO3	Be familiar with transport layer and different application protocols.
CO4	Acquire knowledge on WML and WAP 2.0 environment.

Name of the Course	Robotics and Artificial Intelligence
Course Code	SECS 404(A)
CO1	Acquire knowledge on Intelligent agents, uninformed search algorithms and informed search algorithms .
CO2	Acquire basic knowledge on machine learning, Neural Networks and Robotics.

Name of the Program: M.SC(CS)											
Advanced Java Programming								Course Code: CS101			
Semester: I								Year: I			
Academic Year: 2018-19								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	3	1	1	2	3	2	2	1
CO2	2	3	2	3	1	1	2	3	2	3	1
CO3	2	3	2	3	1	1	2	3	3	3	1
CO4	2	2	2	3	1	1	2	3	2	3	1

Name of the Program: M.SC(CS)											
Operating Systems								Course Code: CS102			
Semester: I								Year: I			
Academic Year: 2018-19								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	1	1	1	1	1	1	2	1	1	1	1
CO2	2	2	2	2	2	1	2	1	1	-	1
CO3	1	1	1	1	1	1	2	2	1	1	2
CO4	3	2	2	3	2	2	2	2	1	1	2

Software Engineering									Course Code: CS103		
Semester: I									Year: I		
Academic Year: 2018-19									Batch: 2018-20		
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	2	1	2	2	2	2	2	1
CO2	3	3	2	3	3	3	2	2	2	3	2
CO3	2	3	3	3	3	2	2	2	3	3	1
CO4	3	2	2	2	2	2	3	2	2	3	1

Name of the Program: M.SC(CS)											
Discrete Mathematics									Course Code: CS104		
Semester: I									Year: I		
Academic Year: 2018-19									Batch: 2018-20		
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	2	2	2	3	2	3	3	2	2
CO2	3	2	3	2	3	3	2	3	3	3	2
CO3	3	1	2	1	2	2	1	2	2	1	1
CO4	3	2	3	2	3	2	2	2	3	2	3

Name of the Program: M.SC(CS)											
Advanced Programming Java Lab									Course Code: CS105		
Semester: I									Year: I		
Academic Year: 2018-19									Batch: 2018-20		
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	3	2	3	1	1	2	3	3	3	1
CO2	2	2	2	3	1	1	2	3	3	3	1

Name of the Program: M.SC(CS)	
Operating Systems Lab	Course Code: CS106
Semester: I	Year: I
Academic Year: 2018-19	Batch: 2018-20

	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	-	-	2	1	1	-	1	-	-	1	1
CO2	1	1	2	1	1	1	1	1	1	1	2

Name of the Program: M.SC(CS)											
Software Engineering Lab								**Course Code: CS107**			
Semester: I								**Year: I**			
Academic Year: 2018-19								**Batch: 2018-20**			
	Program Outcomes								**Program Specific Outcomes**		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	3	2	3	2	2	3	2	3	3	1
CO2	2	3	2	3	2	2	3	2	3	3	1

Name of the Program: M.SC(CS)											
Programming Using Python								**Course Code: CS201**			
Semester: II								**Year: I**			
Academic Year: 2018-19								**Batch: 2018-20**			
	Program Outcomes								**Program Specific Outcomes**		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	3	1	1	2	3	2	2	1
CO2	2	3	2	3	1	1	2	3	2	2	1
CO3	2	3	2	3	1	1	2	3	3	3	1
CO4	2	3	2	3	1	1	2	3	3	3	1

Name of the Program: M.SC(CS)											
Computer Networks								**Course Code: CS202**			
Semester: II								**Year: I**			
Academic Year: 2018-19								**Batch: 2018-20**			
	Program Outcomes								**Program Specific Outcomes**		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	3	3	3	3	3	2	3	3	3	3
CO2	3	1	2	3	2	3	2	3	3	3	3
CO3	3	2	3	3	2	2	2	3	3	3	3
CO4	3	2	3	3	2	3	2	2	3	3	3

Name of the Program: M.SC(CS)											
Design and Analysis of Algorithms								Course Code: CS203			
Semester: II								Year: I			
Academic Year: 2018-19								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	1	2	2	2	1	1	1	2	2	1
CO2	1	1	2	2	2	1	1	1	2	2	3
CO3	1	1	2	2	2	1	1	1	2	2	3
CO4	1	1	2	2	2	1	1	1	2	2	3

Name of the Program: M.SC(CS)											
Automata Languages and Computations								Course Code: CS204			
Semester: II								Year: I			
Academic Year: 2018-19								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	2	2	2	2	2	3	3	3
CO2	3	1	2	2	2	2	2	2	3	3	3
CO3	3	1	2	2	2	2	2	2	3	3	3
CO4	3	1	2	2	2	2	2	2	3	3	3

Name of the Program: M.SC(CS)											
Programming Using Python Lab								Course Code: CS205			
Semester: II								Year: I			
Academic Year: 2018-19								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	3	1	1	2	3	3	2	1
CO2	2	3	3	3	1	1	2	3	3	3	1

Name of the Program: M.SC(CS)	
Computer Networks Lab	Course Code: CS206
Semester: II	Year: I

Academic Year: 2018-19							Batch: 2018-20				
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	1	1	1	1	1	2	1	1	1	1	1
CO2	2	1	1	2	1	2	1	1	2	2	1

Name of the Program: M.SC(CS)											
Design and Analysis of Algorithms Lab								Course Code: CS207			
Semester: II								Year: I			
Academic Year: 2018-19								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	1	1	1	1	1	2	1	2	2	3
CO2	2	1	1	1	1	1	2	2	2	2	2

Name of the Program: M.SC(CS)											
C# Programming								Course Code: CS301			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	1	2	1	1	1	1	2	1	1	1	1
CO2	3	2	2	3	2	2	2	1	2	2	1
CO3	3	2	3	3	2	2	1	2	2	2	2
CO4	3	2	2	3	1	2	2	2	3	3	2

Name of the Program: M.SC(CS)											
Computer Organization								Course Code: CS302			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	2	2	3	1	1	2	1	2	1	2
CO2	3	2	2	3	1	1	2	2	2	1	3
CO3	2	2	2	2	2	1	2	2	2	2	2
CO4	2	2	2	1.5	2	1	1	1	2	1	2

Name of the Program: M.SC(CS)											
Network Security								Course Code: CS303(B)			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	3	1	1	2	3	2	2	2
CO2	2	2	2	3	1	1	2	3	3	2	2
CO3	2	2	2	3	1	1	2	3	2	2	2
CO4	2	2	2	3	2	2	2	3	2	2	2

Name of the Program: M.SC(CS)											
Data Mining								Course Code: CS304(B)			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	3	1	1	2	1	2	1	2
CO2	2	2	2	3	1	1	2	2	2	1	2
CO3	2	2	2	2	2	1	2	2	2	2	2
CO4	2	2	2	1.5	2	1	1	1	2	1	2

Name of the Program: M.SC(CS)											
C# Programming Lab								Course Code: CS305P			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	1	1	3	1	1	1	2	1	1	1	1
CO2	2	2	3	3	1	2	2	2	1	3	1

Name of the Program: M.SC(CS)											
Computer Organization Lab								Course Code: CS306P			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	3	2	3	2	1	1	2	2	2	1
CO2	2	2	2	1	1	1	1	2	1	1	1

Name of the Program: M.SC(CS)											
Big Data Analytics Lab								Course Code: CS307(B)P			
Semester: III								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	3	2	1	2	2	3	1	1	2	2
CO2	3	3	2	1	2	2	3	2	3	2	2

Name of the Program: M.SC(CS)											
Compiler Design								Course Code: CS401			
Semester: IV								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	3	1	2	1	1	1	1	2	3	1	2
CO2	3	2	2	3	1	1	2	2	3	1	3
CO3	2	2	2	1	1	1	1	2	3	2	2
CO4	3	2	2	2	2	1	1	2	2	1	3

Name of the Program: M.SC(CS)											
Cloud Computing								Course Code: CS402			
Semester: IV								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	1	1	1	1	2	1	2	2	1	2	2
CO2	2	1	2	3	2	2	2	2	1	2	3
CO3	1	1	1	2	2	1	2	2	1	2	2
CO4	2	1	2	3	3	3	2	2	1	2	3

Name of the Program: M.SC(CS)											
Mobile Computing								Course Code: CS403(A)			
Semester: IV								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	2	3	1	2	3	3	1	2
CO2	2	2	3	2	2	1	2	2	2	3	2
CO3	3	3	3	3	3	1	3	3	3	3	2
CO4	3	3	3	3	2	1	3	3	2	3	3

Name of the Program: M.SC(CS)											
Robotics and Artificial Intelligence								Course Code: SECS404(A)			
Semester: IV								Year: II			
Academic Year: 2019-20								Batch: 2018-20			
	Program Outcomes								Program Specific Outcomes		
COs/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	2	2	2	2	2	1	2	2	2	3	3
CO2	2	2	3	2	3	1	2	2	2	2	3

Program Targets

		Program Outcomes								Program Specific Outcomes		
	Course/POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
1	ADVANCED JAVA PROGRAMMING	2.00	2.50	2.00	3.00	1.00	1.00	2.00	3.00	2.25	2.75	1.00
2	OPERATING SYSTEMS	1.75	1.50	1.50	1.75	1.50	1.25	2.00	1.50	1.00	1.00	1.50
3	SOFTWARE ENGINEERING	2.50	2.50	2.25	2.50	2.25	2.25	2.25	2.00	2.25	2.75	1.25
4	DESCRETE MATHEMATICS	3.00	1.75	2.50	2.00	2.50	2.50	1.75	2.50	2.75	2.00	2.00
5	ADVANCED JAVA PROGRAMMING LAB	2.00	2.50	2.00	3.00	1.00	1.00	2.00	3.00	3.00	3.00	1.00
6	OPERATING SYSTEMS LAB	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50
7	SOFTWARE ENGINEERIG LAB	2.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	3.00	3.00	1.00
8	PROGRAMMING USING PYTHON	2.00	2.75	2.00	3.00	1.00	1.00	2.00	3.00	2.50	2.50	1.00
9	COMPUTER NETWORKS	3.00	2.00	2.75	3.00	2.25	2.75	2.00	2.75	3.00	3.00	3.00
10	DESIGN AND ANALYSIS OF ALGORITHMS	1.25	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.50
11	AUTOMATA LANGUAGE AND COMPUTATION	3.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00
12	PROGRAMMING USING PYTHON LAB	2.00	2.50	2.50	3.00	1.00	1.00	2.00	3.00	3.00	2.50	1.00
13	COMPUTER NETWORKS LAB	2.50	1.75	2.25	2.50	1.50	1.50	2.00	2.50	3.00	2.75	2.00
14	DESIGN AND ANALYSIS OF ALGORITHMS LAB	2.00	1.00	1.00	1.00	1.00	1.00	2.00	1.50	2.00	2.00	2.50
15	C# PROGRAMMING	2.50	2.00	2.00	2.50	1.50	1.75	1.75	1.50	2.00	2.00	1.50
16	COMPUTER ORGANIZATION	2.50	2.00	2.00	2.38	1.50	1.00	1.75	1.50	2.00	1.25	2.25
17	BIG DATA ANALYTICS	2.00	2.00	2.00	3.00	1.25	1.25	2.00	3.00	2.25	2.00	2.00
18	DATA MINING	2.00	2.00	2.00	2.38	1.50	1.00	1.75	1.50	2.00	1.25	2.00
19	C# PROGRAMMING LAB	2.00	2.50	2.00	2.00	1.50	1.00	1.00	2.00	1.50	1.50	1.00
20	COMPUTER ORGANIZATION LAB	2.00	2.50	2.00	2.00	1.50	1.00	1.00	2.00	1.50	1.50	1.00
21	BIG DATA ANALYTICS LAB	2.00	2.50	2.00	2.00	1.50	1.00	1.00	2.00	1.50	1.50	1.00
22	COMPILER DESIGN	2.75	1.75	2.00	1.75	1.25	1.00	1.25	2.00	2.75	1.25	2.50
23	CLOUD COMPUTING	2.75	1.75	2.00	1.75	1.25	1.00	1.25	2.00	2.75	1.25	2.50
24	MOBILE COMPUTING	2.50	2.50	2.75	2.50	2.50	1.00	2.50	2.75	2.50	2.50	2.25
25	ROBOTICS AND ARTIFICAL INTELLIGENCE	2.00	2.00	2.50	2.00	2.50	1.00	2.00	2.00	2.00	2.50	3.00
	TOTAL	55	50.25	52	57.01	39.75	33.25	44.25	53	56.5	51.75	45.25
	PROGRAMOUTCOMETARGETS	2.2	2.01	2.08	2.28	1.59	1.33	1.77	2.12	2.26	2.07	1.81

Program Attainments

				Program Outcomes								Program Specific Outcomes		
Sem		Course/POs	COURSE ATTAINMENTS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO 2	PSO3
I	1	ADVANCED JAVA PROGRAMMING	3	2	2.5	2	3	1	1	2	3	2.25	2.75	1
	2	OPERATING SYSTEMS	3	1.75	1.5	1.5	1.75	1.5	1.25	2	1.5	1	1	1.5
	3	SOFTWARE ENGINEERING	3	2.5	2.5	2.25	2.5	2.25	2.25	2.25	2	2.25	2.75	1.25
	4	DESCRETE MATHEMATICS	3	3	1.75	2.5	2	2.5	2.5	1.75	2.5	2.75	2	2
	5	ADVANCED JAVA PROGRAMMING LAB	3	2	2.5	2	3	1	1	2	3	3	3	1
	6	OPERATING SYSTEMS LAB	3	1	1	2	1	1	1	1	1	1	1	1.5
	7	SOFTWARE ENGINEERIG LAB	3	2	3	2	3	2	2	3	2	3	3	1
II		PROGRAMMING USING PYTHON	3	2	2.75	2	3	1	1	2	3	2.5	2.5	1
	9	COMPUTER NETWORKS	3	3	2	2.75	3	2.25	2.75	2	2.75	3	3	3
	10	DESIGN AND ANALYSIS OF ALGORITHMS	3	1.25	1	2	2	2	1	1	1	2	2	2.5
	11	AUTOMATA LANGUAGE AND COMPUTATION	2	2	0.67	1.33	1.33	1.33	1.33	1.33	1.33	2	2	2
	12	PROGRAMMING USING PYTHON LAB	3	2	2.5	2.5	3	1	1	2	3	3	2.5	1
	13	COMPUTER NETWORKS LAB	3	2.5	1.75	2.25	2.5	1.5	1.5	2	2.5	3	2.75	2
	14	DESIGN AND ANALYSIS OF ALGORITHMS LAB	3	2	1	1	1	1	1	2	1.5	2	2	2.5
III	15	C# PROGRAMMING	3	2.5	2	2	2.5	1.5	1.75	1.75	1.5	2	2	1.5
	16	COMPILER DESIGN	3	2.5	2	2	2.38	1.5	1	1.75	1.5	2	1.25	2.25
	17	NETWORK SECURITY	3	2	2	2	3	1.25	1.25	2	3	2.25	2	2
	18	DATA MINING	3	2	2	2	2.38	1.5	1	1.75	1.5	2	1.25	2
	19	C# PROGRAMMING LAB	3	2	2.5	2	2	1.5	1	1	2	1.5	1.5	1
	20	COMPILER DESIGN LAB	3	2	2.5	2	2	1.5	1	1	2	1.5	1.5	1
	21	NETWORK SECURITY LAB	3	2	2.5	2	2	1.5	1	1	2	1.5	1.5	1
IV	22	COMPUTER ORGANIZATION	3	2.75	1.75	2	1.75	1.25	1	1.25	2	2.75	1.25	2.5
	23	CLOUD COMPUTING	3	2.75	1.75	2	1.75	1.25	1	1.25	2	2.75	1.25	2.5
	24	MOBILE COMPUTING	3	2.5	2.5	2.75	2.5	2.5	1	2.5	2.75	2.5	2.5	2.25
	25	ROBOTICS AND ARTIFICIAL INTELLIGENCE	3	2	2	2.5	2	2.5	1	2	2	2	2.5	3
		TOTAL		54	49.92	51.33	56.34	39.08	32.58	43.58	52.33	55.50	50.75	44.25
		PROGRAM OUTCOME ATTAINMENTS		2.16	2.00	2.05	2.25	1.56	1.30	1.74	2.09	2.22	2.03	1.77

	GAPS											
	Program Outcome Targets		2.2	2.01	2.08	2.28	1.59	1.33	1.77	2.12	2.26	2.07	1.81
	Program Outcome Attainments		2.16	2.00	2.05	2.25	1.56	1.30	1.74	2.09	2.22	2.03	1.77
	GAPS		**0.04**	**0.013**	**0.027**	**0.026**	**0.027**	**0.027**	**0.027**	**0.027**	**0.04**	**0.04**	**0.04**