



SHREE DEVI INSTITUTE OF TECHNOLOGY

(Affiliated to Visvesvaraya Technological University & Recognized by AICTE)

AIRPORT ROAD, KENJAR, MANGALORE – 574 142

Phone: 0824 – 2254104 Website: www.sdc.ac.in, E-mail : sdit_kenjar@rediffmail.com

15 SCHEME - COMPUTER SCIENCE AND ENGINEERING

ENGINEERING MATHEMATICS-IV [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
Subject Code	15MAT41	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to:			
<ul style="list-style-type: none">• Use appropriate numerical methods to solve first and second order ordinary differential equations.• Use Bessel's and Legendre's function which often arises when a problem possesses axial and spherical symmetry, such as in quantum mechanics, electromagnetic theory, hydrodynamics and heat conduction.• State and prove Cauchy's theorem and its consequences including Cauchy's integral formula.• Compute residues and apply the residue theorem to evaluate integrals.• Analyze, interpret, and evaluate scientific hypotheses and theories using rigorous statistical methods.			
SOFTWARE ENGINEERING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
Subject Code	15CS42	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to:			
<ul style="list-style-type: none">• Design a software system, component, or process to meet desired needs within realistic constraints.• Assess professional and ethical responsibility• Function on multi-disciplinary teams• Use the techniques, skills, and modern engineering tools necessary for engineering practice• Analyze, design, implement, verify, validate, implement, apply, and maintain software systems or parts of software systems.			
DESIGN AND ANALYSIS OF ALGORITHMS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			

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Subject Code	15CS43	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to			
<ul style="list-style-type: none">• Describe computational solution to well known problems like searching, sorting etc.• Estimate the computational complexity of different algorithms.• Devise an algorithm using appropriate design strategies for problem solving.			

MICROPROCESSORS AND MICROCONTROLLERS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
Subject Code	15CS44	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to			
<ul style="list-style-type: none">• Differentiate between microprocessors and microcontrollers• Design and develop assembly language code to solve problems• Gain the knowledge for interfacing various devices to x86 family and ARM processor.• Demonstrate design of interrupt routines for interfacing devices			

OBJECT ORIENTED CONCEPTS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
Subject Code	15CS45	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to			
<ul style="list-style-type: none">• Explain the object-oriented concepts and JAVA.• Develop computer programs to solve real world problems in Java.• Develop simple GUI interfaces for a computer program to interact with users, and to understand the event-based GUI handling principles using Applets and swings.			

DATA COMMUNICATION [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
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Subject Code	15CS46	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to			
<ul style="list-style-type: none">• Illustrate basic computer network technology.• Identify the different types of network topologies and protocols.• Enumerate the layers of the OSI model and TCP/IP functions of each layer.• Make out the different types of network devices and their functions within a network.• Demonstrate the skills of subnetting and routing mechanisms.			

DESIGN AND ANALYSIS OF ALGORITHM LABORATORY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
Subject Code	15CSL47	IA Marks	20
Number of Lecture Hours/Week	01 I + 02 P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course Outcomes: The students should be able to:			
<ul style="list-style-type: none">• Design algorithms using appropriate design techniques (brute-force, greedy, dynamic programming, etc.)• Implement a variety of algorithms such as sorting, graph related, combinatorial, etc., in a high level language.• Analyze and compare the performance of algorithms using language features.• Apply and implement learned algorithm design techniques and data structures to solve real- world problems.			

MICROPROCESSOR AND MICROCONTROLLER LABORATORY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – IV			
Subject Code	15CSL48	IA Marks	20
Number of Lecture Hours/Week	01 I + 02 P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course Outcomes: After studying this course, students will be able to			
<ul style="list-style-type: none">• Learn 80x86 instruction sets and gain the knowledge of how assembly language works.• Design and implement programs written in 80x86 assembly language• Know functioning of hardware devices and interfacing them to x86 family• Choose processors for various kinds of applications.			

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MANAGEMENT AND ENTREPRENEURSHIP FOR IT INDUSTRY

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – V

Subject Code	15CS51	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Course outcomes: The students should be able to:

- Define management, organization, entrepreneur, planning, staffing, ERP and outline their importance in entrepreneurship
- Utilize the resources available effectively through ERP
- Make use of IPRs and institutional support in entrepreneurship

COMPUTER NETWORKS

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – V

Subject Code	15CS52	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Course outcomes: The students should be able to:

- Explain principles of application layer protocols
- Recognize transport layer services and infer UDP and TCP protocols
- Classify routers, IP and Routing Algorithms in network layer
- Understand the Wireless and Mobile Networks covering IEEE 802.11 Standard
- Describe Multimedia Networking and Network Management

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DATABASE MANAGEMENT SYSTEM [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CS53	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Identify, analyze and define database objects, enforce integrity constraints on a database using RDBMS.• Use Structured Query Language (SQL) for database manipulation.• Design and build simple database systems• Develop application to interact with databases.			

AUTOMATA THEORY AND COMPUTABILITY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CS54	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Acquire fundamental understanding of the core concepts in automata theory and Theory of Computation• Learn how to translate between different models of Computation (e.g., Deterministic and Non-deterministic and Software models).• Design Grammars and Automata (recognizers) for different language classes and become knowledgeable about restricted models of Computation (Regular, Context Free) and their relative powers.• Develop skills in formal reasoning and reduction of a problem to a formal model, with an emphasis on semantic precision and conciseness.• Classify a problem with respect to different models of Computation.			

OBJECT ORIENTED MODELING AND DESIGN [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CS551	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80

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Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Describe the concepts of object-oriented and basic class modelling.• Draw class diagrams, sequence diagrams and interaction diagrams to solve problems.• Choose and apply a befitting design pattern for the given problem.			

INTRODUCTION TO SOFTWARE TESTING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CS552	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Derive test cases for any given problem• Compare the different testing techniques• Classify the problem into suitable testing model• Apply the appropriate technique for the design of flow graph.• Create appropriate document for the software artefact.			

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ADVANCED JAVA AND J2EE [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CS553	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Interpret the need for advanced Java concepts like enumerations and collections in developing modular and efficient programs• Build client-server applications and TCP/IP socket programs• Illustrate database access and details for managing information using the JDBC API• Describe how servlets fit into Java-based web application architecture• Develop reusable software components using Java Beans			

ADVANCED ALGORITHMS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CS554	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Explain the principles of algorithms analysis approaches• Apply different theoretic based strategies to solve problems• Illustrate the complex signals and data flow in networks with usage of tools• Describe the computational geometry criteria.			

COMPUTER NETWORK LABORATORY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CSL57	IA Marks	20
Number of Lecture Hours/Week	01I + 02P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Analyze and Compare various networking protocols.• Demonstrate the working of different concepts of networking.• Implement, analyze and evaluate networking protocols in NS2 / NS3			

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DBMS LABORATORY WITH MINI PROJECT [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – V			
Subject Code	15CSL58	IA Marks	20
Number of Lecture Hours/Week	01I + 02P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Create, Update and query on the database.• Demonstrate the working of different concepts of DBMS• Implement, analyze and evaluate the project developed for an application.			

CRYPTOGRAPHY, NETWORK SECURITY AND CYBER LAW [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VI			
Subject Code	15CS61	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Discuss cryptography and its need to various applications• Design and develop simple cryptography algorithms• Understand cyber security and need cyber Law			

COMPUTER GRAPHICS AND VISUALIZATION [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VI			
Subject Code	15CS62	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Design and implement algorithms for 2D graphics primitives and attributes.• Illustrate Geometric transformations on both 2D and 3D objects.• Apply concepts of clipping and visible surface detection in 2D and 3D viewing, and Illumination Models.• Decide suitable hardware and software for developing graphics packages using OpenGL.			

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SYSTEM SOFTWARE AND COMPILER DESIGN

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – VI

Subject Code	15CS63	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03

Course outcomes: The students should be able to:

- Explain system software such as assemblers, loaders, linkers and macro processors
- Design and develop lexical analyzers, parsers and code generators
- Utilize lex and yacc tools for implementing different concepts of system software.

OPERATING SYSTEMS

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – VI

Subject Code	15CS64	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Course outcomes: The students should be able to:

- Demonstrate need for OS and different types of OS
- Apply suitable techniques for management of different resources
- Use processor, memory, storage and file system commands
- Realize the different concepts of OS in platform of usage through case studies

DATA MINING AND DATA WAREHOUSING

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – VI

Subject Code	15CS651	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course outcomes: The students should be able to:

- Identify data mining problems and implement the data warehouse
- Write association rules for a given data pattern.
- Choose between classification and clustering solution.

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SOFTWARE ARCHITECTURE AND DESIGN PATTERNS

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – VI

Subject Code	15CS652	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course outcomes: The students should be able to:

- Design and implement codes with higher performance and lower complexity
- Be aware of code qualities needed to keep code flexible
- Experience core design principles and be able to assess the quality of a design with respect to these principles.
- Capable of applying these principles in the design of object oriented systems.
- Demonstrate an understanding of a range of design patterns. Be capable of comprehending a design presented using this vocabulary.
- Be able to select and apply suitable patterns in specific contexts

OPERATIONS RESEARCH

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

SEMESTER – VI

Subject Code	15CS653	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course outcomes: The students should be able to:

- Select and apply optimization techniques for various problems.
- Model the given problem as transportation and assignment problem and solve.
- Apply game theory for decision support system.

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DISTRIBUTED COMPUTING SYSTEM [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VI			
Subject Code	15CS654	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Explain the characteristics of a distributed system along with its and design challenges • Illustrate the mechanism of IPC between distributed objects • Describe the distributed file service architecture and the important characteristics of SUN NFS. • Discuss concurrency control algorithms applied in distributed transactions 			

SYSTEM SOFTWARE AND OPERATING SYSTEM LABORATORY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VI			
Subject Code	15CSL67	IA Marks	20
Number of Lecture Hours/Week	01I + 02P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Implement and demonstrate Lexer's and Parser's. • Evaluate different algorithms required for management, scheduling, allocation and communication used in operating system. 			

COMPUTER GRAPHICS LABORATORY WITH MINI PROJECT [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VI			
Subject Code	15CSL68	IA Marks	20
Number of Lecture Hours/Week	01I + 02P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Apply the concepts of computer graphics • Implement computer graphics applications using OpenGL. • Animate real world problems using OpenGL 			



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WEB TECHNOLOGY AND ITS APPLICATIONS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS71	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to			
<ul style="list-style-type: none"> • Adapt HTML and CSS syntax and semantics to build web pages. • Construct and visually format tables and forms using HTML and CSS • Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically. • Appraise the principles of object oriented development using PHP • Inspect JavaScript frameworks like jQuery and Backbone which facilitates developer to focus on core features. 			

ADVANCED COMPUTER ARCHITECTURES [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS72	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Explain the concepts of parallel computing and hardware technologies • Compare and contrast the parallel architectures • Illustrate parallel programming concepts 			

MACHINE LEARNING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS73	IA Marks	20
Number of Lecture Hours/Week	03	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Course Outcomes: After studying this course, students will be able to			
Identify the problems for machine learning. And select the either supervised, unsupervised or reinforcement learning.			
<ul style="list-style-type: none"> • Explain theory of probability and statistics related to machine learning • Investigate concept learning, ANN, Bayes classifier, k nearest neighbor, Q, 			

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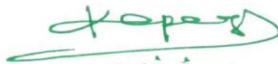
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NATURAL LANGUAGE PROCESSING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS741	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">Analyze the natural language text.Generate the natural language.Do Text mining.Apply information retrieval techniques.			

CLOUD COMPUTING AND ITS APPLICATIONS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS742	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">Explain cloud computing, virtualization and classify services of cloud computingIllustrate architecture and programming in cloudDescribe the platforms for development of cloud applications and List the application of cloud.			

INFORMATION AND NETWORK SECURITY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS743	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">Analyze the Digital security lapsesIllustrate the need of key management			


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UNIX SYSTEM PROGRAMMING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS744	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Ability to understand and reason out the working of Unix Systems • Build an application/service over a Unix system. 			

SOFT AND EVOLUTIONARY COMPUTING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS751	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Understand soft computing techniques • Apply the learned techniques to solve realistic problems • Differentiate soft computing with hard computing techniques 			
COMPUTER VISION AND ROBOTICS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS752	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Implement fundamental image processing techniques required for computer vision • Perform shape analysis • Implement boundary tracking techniques • Apply chain codes and other region descriptors • Apply Hough Transform for line, circle, and ellipse detections. • Apply 3D vision techniques. • Implement motion related techniques. • Develop applications using computer vision techniques. 			

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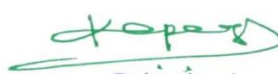
AIRPORT ROAD, KENJAR, MANGALORE – 574 142

Phone: 0824 – 2254104 Website: www.sdc.ac.in, E-mail : sdit_kenjar@rediffmail.com

DIGITAL IMAGE PROCESSING [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS753	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Explain fundamentals of image processing• Compare transformation algorithms• Contrast enhancement, segmentation and compression techniques			

STORAGE AREA NETWORKS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CS754	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			
Course outcomes: The students should be able to:			
<ul style="list-style-type: none">• Identify key challenges in managing information and analyze different storage networking technologies and virtualization• Explain components and the implementation of NAS• Describe CAS architecture and types of archives and forms of virtualization• Illustrate the storage infrastructure and management activities			

MACHINE LEARNING LABORATORY [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2016 -2017) SEMESTER – VII			
Subject Code	15CSL76	IA Marks	20
Number of Lecture Hours/Week	01I + 02P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 02			
Course outcomes: The students should be able to:			
<ol style="list-style-type: none">1. Understand the implementation procedures for the machine learning algorithms.2. Design Java/Python programs for various Learning algorithms.3. Apply appropriate data sets to the Machine Learning algorithms.4. Identify and apply Machine Learning algorithms to solve real world problems.			


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WEB TECHNOLOGY LABORATORY WITH MINI PROJECT

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017) SEMESTER –

VII

Subject Code	15CSL77	IA Marks	20
Number of Lecture Hours/Week	01I + 02P	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 02

Course outcomes: The students should be able to:

- Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's.
- Have a good understanding of Web Application Terminologies, Internet Tools other web services.
- Learn how to link and publish web sites

INTERNET OF THINGS TECHNOLOGY

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017) SEMESTER –

VIII

Subject Code	15CS81	IA Marks	20
Number of Lecture Hours/Week	04	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Course Outcomes: After studying this course, students will be able to

- Interpret the impact and challenges posed by IoT networks leading to new architectural models.
- Compare and contrast the deployment of smart objects and the technologies to connect them to network.
- Appraise the role of IoT protocols for efficient network communication.
- Elaborate the need for Data Analytics and Security in IoT.
- Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry.

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BIG DATA ANALYTICS

[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2016 -2017) SEMESTER –
VIII

Subject Code	15CS82	IA Marks	20
Number of Lecture Hours/Week	4	Exam Marks	80
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Course outcomes: The students should be able to:

- Master the concepts of HDFS and MapReduce framework
- Investigate Hadoop related tools for Big Data Analytics and perform basic Hadoop Administration
- Recognize the role of Business Intelligence, Data warehousing and Visualization in decision making
- Infer the importance of core data mining techniques for data analytics
- Compare and contrast different Text Mining Techniques

HIGH PERFORMANCE COMPUTING

[As per Choice Based Credit System (CBCS) scheme] (Effective
from the academic year 2016 -2017)
SEMESTER – VIII

Subject Code	15CS831	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course outcomes: The students should be able to:

Illustrate the key factors affecting performance of CSE applications, and
Make mapping of applications to high-performance computing systems, and
Apply hardware/software co-design for achieving performance on real-world applications

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NETWORK MANAGEMENT

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017) SEMESTER –
VIII

Subject Code	15CS833	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course outcomes: The students should be able to:

- Analyze the issues and challenges pertaining to management of emerging network technologies such as wired/wireless networks and high-speed internets.
- Apply network management standards to manage practical networks
- Formulate possible approaches for managing OSI network model.
- Use on SNMP for managing the network
- Use RMON for monitoring the behavior of the network
- Identify the various components of network and formulate the scheme for the managing them

SYSTEM MODELLING AND SIMULATION

[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017) SEMESTER
– VIII

Subject Code	15CS834	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course outcomes: The students should be able to:

- Explain the system concept and apply functional modeling method to model the activities of a static system
- Describe the behavior of a dynamic system and create an analogous model for a dynamic system;
- Simulate the operation of a dynamic system and make improvement according to the simulation results.

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INTERNSHIP / PROFESSIONAL PRACTISE
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2016 -2017)

SEMESTER – VIII

Subject Code	15CS84	IA Marks	50
Duration	4 weeks	Exam Marks	50
		Exam Hours	03

CREDITS – 02

Course objectives: This course will enable students to

PROJECT WORK PHASE II
[As per Choice Based Credit System (CBCS) scheme] (Effective
from the academic year 2016 -2017) SEMESTER – VIII

Subject Code	15CSP85	IA Marks	100
Number of Lecture Hours/Week	06	Exam Marks	100
Total Number of Lecture Hours	--	Exam Hours	03

CREDITS – 05

Course objectives: This course will enable students to

SEMINAR
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2016 -2017)

SEMESTER – VIII

Subject Code	15CSS86	IA Marks	100
Number of Lecture Hours/Week	04	Exam Marks	--
Total Number of Lecture Hours	--	Exam Hours	--

CREDITS – 02

Course objectives: This course will enable students to

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