

BRIEF SYLLABUS

CS2001 LOGIC DESIGN

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Number systems and codes, Boolean algebra, K map: prime cubes, minimum sum of products and product of sums, Quine-McClusky algorithm, prime implicant chart, cyclic prime implicant chart, Petrick's Method, Combinational Logic: analysis and design of combinational logic circuits, parallel adders and look-ahead adders, comparators, decoders and encoders, code conversion, multiplexers and demultiplexers, parity generators and checkers, Programmable Logic Devices, PLA folding, design for testability. Introduction to sequential circuits, memory elements, latches, Flip-flops, analysis and design of sequential circuits, Mealy and Moore models, registers, shift registers, counters.

Total Hours: 70 Hrs

CS2301 INTRODUCTION TO PROGRAMMING

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Data types, operators and expressions- Input output streams-Control statements.
Functions and program structures- Arrays- Pointers and strings -Structures, union and bit fields.
Classes and objects- Special member functions- Single and multiple inheritances - Overloading functions and operators
Polymorphism and virtual functions- Templates, namespaces and exception handling- Data file operations-Introduction of standard template library (STL)

Total Hours: 56 Hrs

MA6010 DISCRETE MATHEMATICS

Prerequisite: Nil

L	T	P	C
3	0	0	3

Total Hours: 42 hours

Propositional Calculus- logical equivalence, logical arguments, consistency completeness and independence, Predicate Calculus- predicates, quantifiers, arguments, theory of inference, resolution algorithm. Relations and functions, Boolean Algebra, Semi groups, monoids, groups and subgroups, homomorphism, Rings, Integral domains, fields, ideals and quotient rings, Euclidian domain, polynomial rings, division algorithm, field factorization, unique factorization, field extensions

MS1001 PROFESSIONAL COMMUNICATION

Pre-requisite: Nil

L	T	P	C
3	0	0	3

The syllabus is divided into four modules. The first module is verbal communication which includes topics like received pronunciation, presentation skills and conferences, soft skills, body language and personal interviews. Reading comprehension is the second module, wherein prediction techniques, inferential comprehension and uses and interpretation of visuals in technical writing will be dealt with.

In the third and fourth modules, the focus will be on written communication, where the students will learn to prepare different types of reports, advertisement, agenda, resume letters, paragraphs, articles, research papers and essays.

Total Hours: 42 Hrs

CS2391 INTRODUCTORY PROGRAMMING LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Programming assignments to emphasize the concepts and use- iterative constructs, subroutines, linked list, pointers, structures, union, creation of objects, inheritance, polymorphism, templates etc..

Total Hours: 56 Hrs

CS2004 COMPUTER ORGANIZATION

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Measuring performance-evaluating, comparing and summarizing performance, Computer arithmetic, integer and floating point arithmetic, processor design, pipelined processors, memory hierarchy, caches and virtual memory, Input/output design.

Total Hours: 70 Hrs

CS2005 DATA STRUCTURES AND ALGORITHMS

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Searching and sorting algorithms, dynamic memory and recursion, lists, stacks and queues, binary search trees, hashing, B Trees, Graph search, Minimum Spanning Tree and shortest path algorithms.

Total Hours: 56 Hrs

CS2094 DATA STRUCTURES LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Implementation of standard searching, sorting algorithms, tree, expression evaluation and graph algorithms.

Total Hours: 56 Hrs

CS3002 DATABASE MANAGEMENT SYSTEMS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Database System Concepts and Architecture, Data Modeling using ER model, Relational data model, Relational algebra and Relational calculus, SQL, Relational database design using ER to relational mapping, Database design theory and Methodology, Functional Dependencies and Normal Forms, Relational Database Design algorithms, Data storage, Indexing and physical design, Transaction processing concepts, Concurrency Control, Introduction to Database Security.

Total Hours: 70 Hrs

CS3003 OPERATING SYSTEMS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Review of operating system strategies –processes and threads, Process management, inter-process communication, deadlock, memory management- virtual memory, file systems protection and security, Virtual machine monitor –issues and challenges

Total Hours: 70 Hrs

CS3004 SOFTWARE ENGINEERING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Software Development Life Cycle – Detailed study of the phases involved – Requirements Engineering - formal specification – Design – Abstraction, Partitioning and Patterns – Coding and Testing – Software Project Management – Metrics for costing, scheduling and risk assessment.

Total Hours: 70 Hrs

CS3006 COMPUTER NETWORKS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction- components and services, performance, layering. Application layer - protocols, packet programming. Transport layer – services, protocols. Network layer- services, routing, protocols, IPv6, multicasting. Link Layer- services, error handling, protocols, devices, wireless networking. Multimedia networking- applications, protocols, QoS. Security, Network management.

Total Hours: 70 Hrs

CS3301 OBJECT ORIENTED PROGRAMMING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction to Object Oriented Paradigm – Concept of Abstraction – Classes as facilitating data and procedural abstraction - Encapsulation. Concepts of Inheritance, Overloading, and Polymorphism. Memory Management. Examples from any object oriented language. Object Oriented Design – UML. Introduction to OCL. Implementation approaches.

ME4104 PRINCIPLES OF MANAGEMENT

Prerequisite: Nil

L	T	P	C
3	0	0	3

Introduction to management theory, Characteristics, Systems approach, Task responsibilities and skill required, Process of management, Planning, Organizing, Directing, Controlling, Decision making process, Project management, Overview of operations management, Human resources management, Marketing management, Financial management.

Total Hours: 42

CS4021 NUMBER THEORY AND CRYPTOGRAPHY

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Divisibility theory and congruence theory – Fermat’s little theorem, Euler’s generalization, Chinese remainder theorem - Quadratic Reciprocity. Algorithmic number theory – Primality Testing Symmetric Key and Public Key cryptosystems – DES, D-H, and RSA. Protocols for authentication – Needham Schroeder. Zero Knowledge Proof Systems – Fiat Shamir Identification Scheme

Total Hours: 70 Hrs

CS4022 PRINCIPLES OF PROGRAMMING LANGUAGES

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Programming Languages: Concepts and Constructs. Untyped Arithmetic Expressions – Introduction, Semantics, Evaluation. Untyped Lambda Calculus – Basics, Semantics. Programming in Lambda Calculus. Typed Arithmetic Expressions – Types and Typing relations, Type Safety. Simply Typed Lambda Calculus – Function types, Typing relations, Properties of typing. Extensions to Simply Typed Lambda Calculus.

Total Hours: 70 Hrs

CS4023 COMPUTATIONAL INTELLIGENCE

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Artificial Intelligence, Structures and Strategies for state space search, Knowledge representation, AI Representational Schemes, Machine Learning, Planning, Genetic algorithm, Genetic Programming, Rule based Expert Systems, Introduction to Natural Language Processing, Languages and Programming Techniques for AI.

Total Hours: 70 Hrs

CS4024 INFORMATION THEORY

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Source coding theorem – Shannon Fano, Huffman and Lempel Ziv codes - channel coding theorem for BSC and BEC - capacity achieving codes for BEC - Cryptography - Perfect Secrecy - Shannon's theorem.

Total Hours: 56 Hrs

CS4025 GRAPH THEORY AND COMBINATORICS

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Generating functions and applications - Ramsey theory - Lovasz local lemma and applications - matching and connectivity in graphs - graph coloring.

Total Hours: 56 Hrs

CS4026 COMBINATORIAL ALGORITHMS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Primal dual theory and applications to algorithm design, Applications to network flow, matching and other graph problems. Approximation algorithms based on primal dual theory.

Total Hours: 70 Hrs

CS4027 TOPICS IN ALGORITHMS

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Introduction to randomization - discrete probability and randomized algorithms, Derandomization, probabilistic proofs, probabilistic complexity classes, Kolmogorov complexity, Godel's theorem

Total Hours: 56 Hrs

CS4028 QUANTUM COMPUTATION

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Quantum mechanics fundamentals, Models for Quantum Computation, Quantum algorithms, Speeding up the solution of NP Complete problems, Quantum error correcting codes , Quantum cryptography , Quantum fault tolerance

Total Hours: 56 Hrs

CS4029 TOPICS IN THEORY OF COMPUTATION

Pre-requisite: CS 3001 Theory of Computation

L	T	P	C
4	0	0	4

Recursion, Turing machines, Arithmetization, Turing degrees, incomparability, Kolmogorov Complexity, Scheme, Term Rewriting and substitution models of computation.

Total Hours: 56 Hrs

CS4030 COMPUTATIONAL COMPLEXITY

Pre-requisite: Nil

L	T	P	C
4	0	0	4

Elementary space and time complexity classes, inclusion theorems, randomization, circuit complexity classes, counting classes, sublinear space, interactive proof systems.

Total Hours: 56 Hrs

CS4031 COMPUTATIONAL ALGEBRA

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction to modular arithmetic and finite fields. Algorithms for modular arithmetic, primality testing, factorization of polynomials over finite fields, Fourier analysis over finite fields and applications of algebraic algorithms to coding theory and cryptography.

Total Hours: 70 Hrs

CS4032 COMPUTER ARCHITECTURE

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Quantitative Principles, Instruction level parallelism, Limits of instruction Level parallelism, Multicore Architecture, Multiprocessor design, Memory consistency, memory subsystem design, Storage and reliability.

Total Hours: 70 Hrs

CS4033 DISTRIBUTED COMPUTING

Pre-requisite: CS 2005 Data Structures and Algorithms

L	T	P	C
3	0	2	4

Introduction to distributed systems, Logical clocks, Direct dependency clocks, Distributed Mutual Exclusion(DME) using timestamps, token and Quorums, Drinking philosophers problem, Dining philosophers problem under heavy and light load conditions, Leader election algorithms, Global state detection, Global predicates, Termination Detection, Control of distributed computation, Self stabilization, knowledge and common knowledge, Distributed consensus, Checkpointing for Recovery.

Total Hours: 70 Hrs

CS4034 MIDDLEWARE TECHNOLOGIES

Pre-requisite: CS4033 Distributed Computing

L	T	P	C
3	0	2	4

Publish/Subscribe matching algorithm, content based models and matching, matching algorithms, distributed hash tables (DHT), content based routing algorithms, engineering event based systems, Accessing publish/subscribe functionality using APIs, Composite event detection, Topic based systems, Overlays, P2P systems, overlay routing

Total Hours: 70 Hrs

CS4035 COMPUTER SECURITY

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Operating Systems security – Access control models – BLP, Biba etc. SELinux overview. Software vulnerabilities – Buffer and Stack overflow. Network Security – Security at transport, network and application layers – Various attacks – Intrusion Detection Systems. Security in wireless domains – mobile devices security. Security in recent applications like online banking and web services.

Total Hours: 70 Hrs

CS4036 ADVANCED DATABASE MANAGEMENT SYSTEMS

Pre-requisite: CS3002 Data Base Management Systems

L	T	P	C
3	0	2	4

Distributed databases, Concurrency Control, Heterogeneity issues, Clustering, Indexing, Client Server Object Bases, Cache Coherence, Parallel Databases, Query processing- Index based, Query optimization: cost estimation, Query optimization algorithms, Online query processing and optimization, Recovery: Multi-level recovery, Shared disk systems, Distributed systems 2PC, 3PC, Multidimensional K- Anonymity, Logical data models for spatial databases: raster model (map algebra), vector model, Spatial query languages

Total Hours: 70 Hrs

CS4037 CLOUD COMPUTING

Pre-requisite: CS4033 Distributed Computing

L	T	P	C
3	0	2	4

New Computing Paradigms & Services, Parallelization in Cloud Computing, Security for Cloud Computing, Cloud Economics, Cloud Architecture, Types of Virtualization, Case studies- Xen, VMware, Eucalyptus, Amazon EC2, Information retrieval through Map Reduce, Hadoop File System, GFS, Page Ranking using Map Reduce, Security threats and solutions in clouds, mobile cloud computing, Case studies- Ajax, Hadoop.

Total Hours: 70 Hrs

CS4038 DATA MINING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction to data mining. Data preprocessing and cleaning. Data mining techniques. Classification, association analysis, clusters analysis, Issues relating to large data sets. Applications to Web Mining and Bioinformatics.

Total Hours: 70 Hrs

CS4039 MULTI AGENT SYSTEMS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

General introduction to the concept of agent and multi-agent system. Abstract agent architecture, Distributed problem solving and the contract net protocol. Agent communication and agent communication languages - including KQML and FIPA ACL. Resource allocation, negotiation, Applications of multi-agent systems in complex distributed problem solving.

Total Hours: 70 Hrs

CS4040 BIOINFORMATICS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Brief Syllabus

Molecular biology primer, Bioinformatics tools and databases, Sequence Alignment, Algorithms for global and local alignments, Introduction to Bio-programming languages, Restriction Mapping and Motif finding, Gene Prediction, Molecular Phylogenetics, Combinatorial pattern matching, Suffix Trees, Heuristic similarity search algorithms, Microarrays, Algorithms for Analyzing Gene Expression data, Protein and RNA structure prediction, Emerging trends in bioinformatics algorithms and databases.

Total Hours: 70 Hrs

CS4041 NATURAL LANGUAGE PROCESSING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction to Natural Language Processing, Different levels of Language Analysis, Representations and Understanding, Linguistic Background, Grammars and Parsing, Top-Down and Bottom-Up Parsers, Transition Network Grammars, Feature Systems and Augmented Grammars, Morphological Analysis and the Lexicon, Parsing with Features, Augmented Transition Networks, Grammars for Natural Language, Movement Phenomenon in Language, Hold mechanisms in ATNs, Human preferences in Parsing, Encoding uncertainty, Ambiguity Resolution: Statistical Methods, Part-of-Speech tagging, Probabilistic Context-Free Grammars, Best First Parsing, Semantic Interpretation, Information Retrieval.

Total Hours: 70 Hrs

CS4042 WEB PROGRAMMING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Internet architecture – associated technologies – program development – server side architecture – synchronization and performance modeling – web development frameworks – SOA – web 2.0 – Implementations - Semantic web – introduction

Total Hours: 70 Hrs

CS4043 IMAGE PROCESSING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Fundamentals of Image processing: Digital image representation, image model, Sampling and Quantization. Image transforms: One dimensional and two dimensional Fourier transform and other transforms. Image enhancement techniques: Spatial and frequency domain methods. Image Segmentation: Edge detection, edge operators, Line detection, Edge linking and boundary detection. Image Data Compression: Lossy and lossless Compression. Applications of Image Processing:

Total Hours: 70 Hrs

CS4044 PATTERN RECOGNITION

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Machine Perception, Pattern Recognition Systems, Baye's Decision Theory: Discriminant functions and Decision Surfaces, Normal Density. Maximum Likelihood and Bayesian Parameter Estimation, Bayesian Parameter Estimation, Non Parametric Techniques: Density Estimation techniques, NN rule, Metrics and NN Classification, Fuzzy Classification. Linear Discriminant Functions: Linear Discriminant Functions and Decision Surfaces, Generalized Discriminant Functions. Multi Layer Neural Networks: Feed-forward Operation, Back-propagation Algorithm.

Total Hours: 70 Hrs

CS4045 MEDICAL IMAGE PROCESSING

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction to digital image processing. Radiography. X-ray Computed tomography. Magnetic resonance imaging. Nuclear imaging. Ultrasound imaging. Image Quality, equipment, clinical use, biological effects and safety. Medical image analysis.

Total Hours: 70 Hrs

CS4046 COMPUTER VISION

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Introduction and overview, pinhole cameras; radiometry terminology. Sources, shadows and shading; Color; Spatial frequency and Fourier transforms; Normalized correlations and finding patterns. Edge detection, Texture, The geometry and views. Stereopsis - Reconstruction, human stereo; Binocular fusion, using color camera. Segmentation by clustering. Human vision, applications; segmentation by graph theoretic clustering. Segmentation by fitting a model.

Total Hours: 70 Hrs

CS4047 COMPUTER GRAPHICS

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Graphics Pipeline - Graphics Hardware - overview of GPU architecture - Coordinate Systems - representations, homogeneous coordinates, object, camera, world, and screen coordinate system, changing coordinate systems - Transformations - affine transformations - cumulation of transformations- Viewing and Projections - Hidden Surface Removal - Z buffer algorithm - Lighting and Shading - Textures and Mapping - Rendering Techniques Geometric Modelling - Data structures - tree representations - Introduction to Curves Surfaces (Bezier, splines) and Meshes.

Total Hours: 70 Hrs

CS4048 TOPICS IN COMPILERS

Pre-requisite: CS3005 Compiler Design

L	T	P	C
3	0	2	4

Analysis, use, tests, circularity. Issues in type systems. Advanced topics in Data Flow, Control Flow and Dependency analysis, Loop optimization, SUIF Platform, Issues in compilation for ILP based processors. Effect of VLIW, Speculative, Predicated instructions, multithreaded processors. Introduction, methods, case studies, implementation.

Total Hours: 70 Hrs

CS4049 ADVANCED COMPUTER NETWORKS

Pre-requisite: CS 3006 Computer Networks

L	T	P	C
3	0	2	4

Layering - Data link layer - Mac Layer protocol -VLANs– Access technologies. Network Layer - IPv6 –features and challenges, API, multicasting. Routing – ISP, stability issues of routing protocols, secure routing, traffic engineering. Transport layer -TCP extensions, new options, performance, and new generation transport protocol. Application layer – DNS, P2P other new models and protocols. Experimentation - Internet traffic modelling and measurements. Security.

Total Hours: 70 Hrs

CS4050 DESIGN AND ANALYSIS OF ALGORITHMS

Pre-requisite: CS2005 Data Structures & Algorithms

L	T	P	C
3	0	2	4

Fundamentals of algorithm analysis, asymptotic analysis, amortized complexity, Problem Solving, Classical algorithm paradigms, complexity, reductions, NP Completeness, Probabilistic Algorithms

Total Hours: 70 Hrs

CS4051 CODING THEORY

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Linear codes, finite fields, cyclic codes, decoding cyclic codes, convolutional codes, trellis decoding, expander graphs and graph based codes.

Total Hours: 70 Hrs

CS4052 LOGIC FOR COMPUTER SCIENCE

Pre-requisite: Nil

L	T	P	C
3	0	2	4

Propositional logic, Syntax and Semantics, Soundness , Completeness, Predicate logic, Syntax and Semantics, Soundness , Completeness, Linear time Temporal Logic(LTL), Syntax and Semantics, Buchi Automata, Automata theoretic methods, Satisfiability, Model checking, Verification, Tools used for verification.

Total Hours: 70 Hrs

CS3091 COMPILER LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Generation of lexical analyzer using tools such as LEX. Generation of parser using tools such as YACC. Creation of Abstract Syntax Tree. Creation of Symbol tables. Semantic Analysis. Generation of target code.

Total Hours: 56 Hrs

CS3092 OPERATING SYSTEMS LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Linux shell programming, Inter process communication, system call implementation, multiprogramming, implementation of TLB, file system implementation, synchronization primitives, networking

Total Hours: 56 Hrs

CS3093 NETWORKS LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Introduction to socket programming, TCP and UDP Sockets, Concurrency, Multitasking, I/O multi tasking, advanced sockets, Firewall packages, Emulator and Simulator.

Total Hours: 56 Hrs

CS3094 PROGRAMMING LANGUAGES LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Introduction to functional programming, Interpreter for the language of untyped arithmetic expressions. Interpreter for the language of Untyped Lambda Calculus, Interpreter for the language of Typed arithmetic expressions. Interpreter for Simply Typed Lambda Calculus and its extensions.

Total Hours: 56 Hrs

CS3095 DATABASE MANAGEMENT SYSTEMS LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Programming exercises covering Postgres SQL, PHP, servlets, JDBC, Web enabled database applications.

Total Hours: 56 Hrs

CS3096 COMPUTATIONAL INTELLIGENCE LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

State Space Search, Two agent Games, Resolution, Machine Learning.

Total Hours: 56 Hrs

CS3097 WEB PROGRAMMING LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Web client – server implementation. Concurrency and performance evaluation. Peer to peer programming and scalability issues. Developing a complete web application.

Total Hours: 56 Hrs

CS4091 BIOCOMPUTING LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Familiarization with biological databases, Retrieving and analyzing data, Study on sequence alignment tools, Study on PHYLIP package, Introduction to Bio-programming with BioPerl, BioPython and BioJava, Study of Genscan, Familiarization with molecular visualization tools, Study of protein structure prediction tools, Implementation of algorithms in sequence analysis, protein structure prediction and phylogenetic tree building.

Total Hours: 56 Hrs

CS4092 DATA MINING LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Experiments based on Classification, clustering, Association rule mining and feature selection. Introduction Scilab and Weka.

Total Hours: 56 Hrs

CS4093 IMAGE PROCESSING LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Lab1: An introduction to digital images- sampling, quantization,
Lab2: Basic image processing, arithmetic processing
Lab3: Image enhancement and point operation-
Lab4: Image enhancement and spatial operation-
Lab5: Color images and models
Lab6: Frequency domain operations.

Total Hours: 56 Hrs

CS4094 COMPUTER VISION LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

MatLab implementation for the following:

Edge operations. Segmentation: by clustering, segmentation by fitting models-Vision applications. Colouring techniques, Pseudo-colouring. Colour image analysis. Object detection and classifications. Computation of 3D scene from 2D.

Total Hours: 56 Hrs

CS4095 COMPUTER GRAPHICS LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

OpenGL programming – drawing geometric primitives – transformations and projections – rendering meshes – rendering shadows and texture models.

Total Hours: 56 Hrs

CS4096 SOFTWARE ENGINEERING LABORATORY

Pre-requisite: CS3004 Software Engineering

L	T	P	C
1	0	3	3

Software development in small groups as a solution to a problem or a product to meet a certain specification. Deliverables include project plan, requirements specification document, design document and review documents. A demo of the integrated software - Review of the process with analysis of variations.

Total Hours: 56 Hrs

CS4097 OBJECT ORIENTED PROGRAMMING LABORATORY

Pre-requisite: Nil

L	T	P	C
1	0	3	3

Introduction to object oriented design - Implementation of programs involving OO concepts – Interfaces Implementation - UML.

Total Hours: 56 Hrs