



Mar Ephraem

College of Engineering & Technology

(NAAC Accredited Institution)

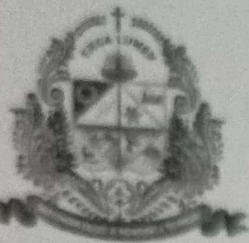
Run by Catholic Diocese of Marthandam

**Department of Computer Science and
Engineering**

**COURSE OUTCOME
AND**

**PROGRAM OUTCOME ATTAINMENT
BATCH 2016-2020**





Mar Ephraem

College of Engineering and Technology

Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai

(A NAAC Accredited Institution)

List of Course Outcomes

Batch 2016-2020

Course	Course Code	Course Name		Course Outcome
C101	HS6151	Technical English - I	C101.1	Summarize various experiences and events
			C101.2	interpret various visual materials (line graphs, pie charts etc.)
			C101.3	use the electronic media (internet) for email communication
			C101.4	describe various processes using sequence words
			C101.5	Analyse different spoken discourses/excerpts
			C101.6	write cohesively and coherently and flawlessly avoiding grammatical errors
C102	MA6151	Mathematics - I	C102.1	find inverse of a matrix using Cayley Hamilton theorem
			C102.2	find the area and volume enclosed by any curve using double and multiple integration technique
			C102.3	use a wide vocabulary range to organize the ideas logically on a topic
			C102.4	find the radius of curvature of any curve .
			C102.5	check the convergency of the given series using different test.
			C102.6	Solve any simultaneous differential equation
C103	PH6151	Engineering Physics - I	C103.1	Calculate the packing factor in crystalline structures.
			C103.2	Choose appropriate material for manufacturing automobile parts, power plants, engines based on their modulus of elasticity.
			C103.3	Select proper material for heat exchangers, boilers, evaporators, compressors based on their thermal behaviour.

Prof. Dr. A. Jamin Fred,
PRINCIPAL
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVILAI, MARTHANDAM - 629 171
KANYAKUMARI DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome	
			C103.4	analyse the dual nature of electrons in SEM,TEM,STEM .
			C103.5	Apply ultrasonic NDT to Find flaws in metal processing ,ships,automobile parts ,aircrafts.
			C103.6	Demonstrate fibre optic sensors used for sensing temperature and pressure variation in pipelines,boilers,oil tanks.
C104	CY6151	Engineering Chemistry - I	C104.1	Recognize the right type of polymer in designing.
			C104.2	Apply various energy transformations principle in systems
			C104.3	Analyze compounds spectroanalytically
			C104.4	Analyze defects in structures using spectroanalytical methods
			C104.5	Choose appropriate alloys in manufacturing.
			C104.6	Select proper nanomaterial in manufacturing technology.
C105	GE6151	Computer Programming	C105.1	Describe the functions of a digital computer with its organization
			C105.2	Apply appropriate algorithm to solve the problem.
			C105.3	Analyse the different conditional constructs to solve simple scientific and statistical problems
			C105.4	Analyse the usage of functions and pointers
			C105.5	Solve the program using arrays and strings
			C105.6	Apply the concept of structures and unions in writing C programs.
C106	GE6152	Engineering Graphics	C106.1	Construct engineering drawing using appropriate scales and standards
			C106.2	Perform freehand sketching of basic geometrical constructions and multiple views of objects

Prof. Dr. A. Kenil Fred, M.E., Ph.D.
PRINCIPAL

MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVILAI, MARTHANDAM - 629 171
KANYAKUMARI DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology

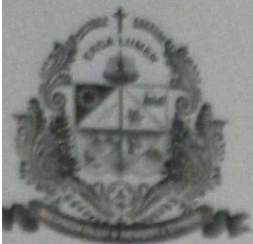
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai

(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
			C106.3	Draw orthographic projection of lines and plane surfaces
			C106.4	Draw projections of solids and development of surfaces
			C106.5	Perform isometric and perspective sections of simple solids
			C106.6	Perform projections of sectioned solids and development of sectioned surfaces
C107	GE6161	Computer Practices Laboratory	C107.1	Choose appropriate office automation tool to solve the problem
			C107.2	Apply good programming design methods for program development.
			C107.3	Design and implement C programs for simple applications.
			C107.4	Solve problems using String functions
			C107.5	Create and Implement the C programs with the help of structures and unions.
C108	GE6162	Engineering Practices Laboratory	C108.1	Fabricate basic carpentry components & pipe connections.
			C108.2	Join the structures using arc welding.
			C108.3	Demonstrate basic machining operations in Lathe.
			C108.4	Fabricate the models using sheet metal works.
			C108.5	Demonstrate basic electrical engineering practices and appliances.
C109	GE6163	Physics and Chemistry Laboratory - I	C109.1	Evaluate the wavelength of spectral lines using spectrometer
			C109.2	Appraise the velocity of sound and compressibility of the liquid using ultrasonic interferometer and thermal conductivity for bad conductors using Lee's disc apparatus.
			C109.3	Determine the DO content in water sample by winkler's method and molecular weight of polymer by Ostwald

Prof. Dr. A. Lenin Fred.
 PRINCIPAL
 MAR EPHRAEM COLLEGE
 OF ENGINEERING & TECHNOLOGY
 MALARIVAZHAI HILLS, EL GUVVALAI, MARTHANDAM, TN - 625 171
 KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome
			viscometer
			C109.4 Find the strength of an acid using pH meter and conductometer
			C109.5 Estimate the amount of weak and strong acids in a mixture by conductometer
C110	HS6251	Technical English - II	C110.1 create reports & curriculum vitae
			C110.2 use active & passive sentences
			C110.3 produce different types of writing such as narration, description, exposition and argument
			C110.4 analyse and evaluate the implied meanings of various texts
			C110.5 Paraphrasing minutes of meeting
			C110.6 Prepare formal letters
C111	MA6251	Mathematics - II	C111.1 apply the Laplace transform techniques in the analysis of linear time invariant systems
			C111.2 Find complex integration using cauchy's residue theorem and cauchy's integral formula
			C111.3 transform any function from one domain to another domain using conformal mapping.
			C111.4 transform any function from one domain to another domain using bilinear transformation
			C111.5 calculate line integral, surface integral and volume integral for the given curve
			C111.6 solve ordinary differential equations using different methods.
C112	PH6251	Engineering Physics - II	C112.1 choose proper conducting material used for heating elements, coils, electrical machines.
			C112.2 Calculate the carrier concentration for semi conducting materials.
			C112.3 select suitable magnetic material in the production of gyrator, motors, electric cars, MRI.
			C112.4 Apply superconducting phenomenon in the manufacturing of

Prof. Dr. A. S. ...
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
CATHOLIC DIOCESE OF MARTHANDAM - 625 104
CHENNAI - 600 089



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome
			SQUID, MAG LEV train, switching devices.
			C112.5 Use proper dielectric material for manufacturing of high voltage transformer, circuit breakers, servo motors.
			C112.6 Analyse different synthesis technique in the preparation of nano materials.
C113	CY6251	Engineering Chemistry - II	C113.1 Analyse the importance of water technology in the purification of water and its domestic and industrial demands.
			C113.2 Explain the principles of electrochemistry and corrosion and their practical applicability.
			C113.3 Understand the fundamentals of different alternative sources of energy and their importance to the mankind.
			C113.4 Classify the types of battery
			C113.5 Analyse the different types of engineering materials and their applications in daily life.
			C113.6 Understand the industrial techniques of petroleum processing and determination of various parameters associated with combustion processes
C114	CS6201	Digital Principles and System Design	C114.1 Define the fundamental concepts of digital logic circuits
			C114.2 Understand and Correlate between Boolean Expression, simplification methods to optimize it for desired characteristics.
			C114.3 Apply the concept of digital logic circuits and Design various combinational building blocks and sequential logic to represent logic function in multiple forms
			C114.4 Analyze a memory cell and apply for organizing larger memory
			C114.5 Understand and compare the concepts of Programmable logic Devices.
			C114.6 Develop a HDL Programs for combinational and Sequential Circuits
C115	CS6202	Programming and Data Structures I	C115.1 Apply the concept of arrays and pointers in C language
			C115.2 Illustrate the process of file handling in C language
			C115.3 Discuss about the various Linear Data Structure Operations
			C115.4 Apply the different linear data structures to problem

Prof. Dr. A. Leem Fred, M.E., Ph.D.
PRINCIPAL
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
M-1, VYASA HILLS, EL AMUVAI, MARTHANDAM - 629 171
KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA



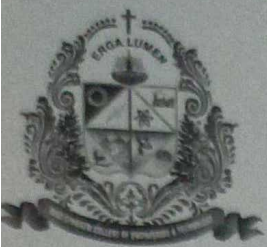
Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome
			solutions.
			C115.5 Explain the various algorithms for sorting and searching
			C115.6 Demonstrate the indexing techniques in data structures
C116	GE6262	Physics and Chemistry Laboratory -II	C116.1 Evaluate the quantitative chemical analysis of hardness, alkalinity and copper ion.
			C116.2 Evaluate the iron content of the given solution using potentiometer
			C116.3 Evaluate the determination of BaCl ₂ and sodium using conductivity meter
			C116.4 Describe optics, thermal physics,
			C116.5 Evaluate engineering properties of materials.
C117	CS6211	Digital Laboratory	C117.1 Examine Boolean Theorems using basic gates.
			C117.2 Apply the concept of digital logic circuits and implement combinational circuits using basic gates for arbitrary functions, code converters.
			C117.3 Design and implementation of combinational circuits using MSI devices
			C117.4 Analyze and implementation of sequential circuits: Shift - registers Synchronous and asynchronous counters
			C117.5 Design and implementation of a simple digital system
C118	CS6212	Programming and Data Structures Laboratory-I	C118.1 Apply pointers and functions
			C118.2 Apply C Program for Linear Data Structure Operations
			C118.3 Apply File Manipulation Concepts
			C118.4 Apply Sorting Algorithms
			C118.5 Apply Searching Algorithms
C201	MA6351	Transforms and	C201.1 Develop partial differential equations for any provided

Prof. Dr. M. S. Prasad, Prof. Dr. M. S. Prasad, Prof. Dr. M. S. Prasad
MAR EPHRAEM COLLEGE OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVAI, MARTHANDAM - 623 171
KANYAKUMARI DISTRICT, TAMILNADU, INDIA



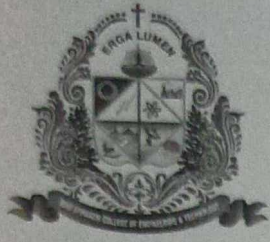
Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome	
		Partial Differential Equations	equations	
			C201.2	Solve various types of partial differential equations
			C201.3	Solve one dimensional wave equations and heat equations using fourier series
			C201.4	Transform aperiodic function from one domain to another domain using Fourier transform method.
			C201.5	Transform periodic function into sum of sine and cosine series
			C201.6	Solve difference equations using Z-Transform.
C202	CS6301	Programming and Data Structure II	C202.1	understand the object-oriented programming concepts in connection with C++
			C202.2	Apply object oriented concepts for problem solutions
			C202.3	Write Reusable , Extensible and Robust programs in C++ with features like polymorphism, templates and exception handling
			C202.4	Use efficient non linear tree data structures like Binary tree, Binary search tree, B-Tree, AVL tree and Red-Black tree to design algorithms for various applications
			C202.5	Apply Graph search and sort algorithms to solve real world problems
			C202.6	Apply various shortest path algorithms to find optimal path in various applications
C203	CS6302	Database Management Systems	C203.1	Design database for applications using ER model
			C203.2	Write SQL queries using normalization and optimize query
			C203.3	Apply concurrency control and recovery mechanism for practical problems
			C203.4	Explain different database applications, and technology

Prof. Dr. A. Anin Fred M.S.
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, ELAVUVILAI, MARTHANDAM - 629 171
KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology

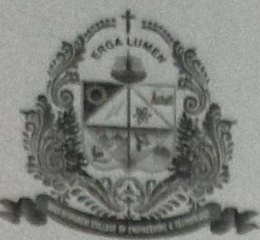
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai

(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
			C203.5	Apply security concepts to database
			C203.6	Compare various indexing strategies in different database system
C204	CS6303	Computer Architecture	C204.1	Explain the computer organization components and instructions
			C204.2	Explain the various addressing modes
			C204.3	Demonstrate arithmetic operations
			C204.4	Interpret the basic of MIPS implementation and pipelining
			C204.5	Outline the concept of parallelism and multi-core processor
			C204.6	Classify the memory technologies and I/O systems
C205	CS6304	Analog and Digital Communication	C205.1	Recognize the different techniques in analog and digital communication
			C205.2	Explain the various concepts of digital communication techniques
			C205.3	Solve various problems on data communication codes
			C205.4	Distinguish the data and pulse mode of communication
			C205.5	Analyze source and error control coding
			C205.6	categorize various multiuser radio communication techniques
C206	GE6351	Environmental Science and Engineering	C206.1	Describe interrelationship between living organism and environment
			C206.2	Analyze the importance of environment by assessing its impact on the human world
			C206.3	Analyze surrounding environment, its functions and its value
			C206.4	Understand the features of the earth's interior and surface
			C206.5	Describe integrated themes and biodiversity, natural resources, pollution control and waste management
			C206.6	Develop and improve in standard of living has lead to serious environmental disasters
C207	CS6311	Programming and Data Structure Laboratory II	C207.1	Apply basic OOP concept for solving real world problems
			C207.2	Use advaced feature of OOP to solve real world problems effciently
			C207.3	Design and implement C++ programs for manipulating stacks, queues, linked lists, trees, and graphs
			C207.4	Apply various non linear tree data structure such as B-trees, Binary search tree, AVL tree etc. to solve various computing problems
			C207.5	Use graph datastructure to solve real world problems efficiently
C208	CS6312	Database	C208.1	Design database schema for a given problem-domain

Prof. Dr. A. ... M.E., Ph.D.
 MAR EPHRAEM COLLEGE
 OF ENGINEERING & TECHNOLOGY
 MALANKARA HILLS, EL AVUVILAI, MARTHANDAM - 629 171
 KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology

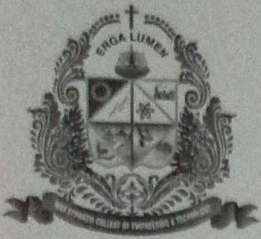
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai

(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
		Management Systems Laboratory	C208.2	Apply normalization techniques to normalize the database
			C208.3	Develop and query a database Using DML and DDL Commands
			C208.4	Apply integrity constraints on a database using RDBMS
			C208.5	Illustrate PL/SQL using Stored Procedures, Stored functions and Cursors
C209	MA6453	Probability and Queueing Theory	C209.1	Solve the distributions based on discrete random variables and continuous random variables
			C209.2	solve the problems on joint distributions, marginal and conditional distributions
			C209.3	solve the problems using random processes and to calculate the auto correlation
			C209.4	solve the problems using Markov processes
			C209.5	solve the problems for different types of queues
			C209.6	Solve problems on chain series and Jackson networks
C210	CS6551	Computer Networks	C210.1	Differentiate types of media, network topologies and network technologies and link layer services
			C210.2	Compare the various internetworking protocols
			C210.3	List the functions of network layer and the various routing protocols
			C210.4	Differentiate the transport layer services and compare TCP and UDP
			C210.5	Differentiate the various application protocols like FTP, HTTP, SMTP, SNMP
			C210.6	Explain about the protocol layering and physical level communication
C211	CS6401	Operating Systems	C211.1	Explain the basic concepts and functions of Operating Systems
			C211.2	Apply the principles of concurrency and design deadlock, prevention and avoidance algorithm
			C211.3	Compare and contrast various memory management schemes
			C211.4	Implement prototype file system
			C211.5	Perform administrative tasks on Linux Servers
			C211.6	Describe the basics of Linux system & Mobile OS like IOS & Android.
C212	CS6402	Design and	C212.1	Design algorithms for a given problem

Prof. Dr. A. Lenin
 PRINCIPAL
 MAR EPHRAEM COLLEGE
 OF ENGINEERING & TECHNOLOGY
 APARILLO, ELAVILAI, MARTHANDAM - 629 174
 TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
		Analysis of Algorithms	C212.2	Solve computational problems using brute force and divide and conquer algorithm design technique
			C212.3	Solve problems using greedy and dynamic programming techniques
			C212.4	Solve problems using iterative methods
			C212.5	Solve Problem using backtracking ,branch and bound techniques
			C212.6	Analyze the different algorithm design techniques for a given problem
C213	EC6504	Microprocessor and Microcontroller	C213.1	Understand the architecture of Microprocessor and Microcontroller
			C213.2	write programs on 8086 microprocessor
			C213.3	Understand the Bus structure and communication of Microprocessor
			C213.4	Design I/O and memory interfacing circuits
			C213.5	Develop basic 8051 Microcontroller based programs
			C213.6	Develop interfacing Programs using 8051 Microcontroller
C214	CS6403	Software Engineering	C214.1	Explain the software engineering process and project management
			C214.2	Compare different process models
			C214.3	illustrate software requirements and analysis
			C214.4	describe the software design process and user interface
			C214.5	Compare and contrast various software testing
			C214.6	Discuss about the software integartion and project management
C215	CS6411	Networks Laboratory	C215.1	Implement the protocols like Stop and Wait Protocol, Sliding Window Protocol, ARP/RARP
			C215.2	Implement applications involving TCP and UDP
			C215.3	Analyse the performance of the protocols in different layers
			C215.4	Analyze various routing algorithms like Link state routing, Flooding, Distance vector routing
			C215.5	Use the simulation tools like NS2
C216	CS6412	Microprocessor and Microcontroller Laboratory	C216.1	Develop ALP for fixed and floating point and Arithmetic operations using 8086 Microprocessor
			C216.2	Use different I/O interfacing with 8086 Microprocessor
			C216.3	Demonstrate serial and parallel interfacing of 8086 Microprocessor
			C216.4	Develop ALP for various applications using 8051 Microcontroller
			C216.5	Construct different waveform using 8051 Microcontroller
C217	CS6413	Operating Systems Laboratory	C217.1	Compare the performance of various CPU Scheduling Algorithms

P. J. Dr. A. Leo Fred, M.E., Ph.D.
PRINCIPAL

MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, EL AVUVILAI, MARTHANDAM TALUK - 629 171
TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome	
			C217.2	Implement Semaphores, Deadlock avoidance and Detection
			C217.3	Create processes and implement IPC
			C217.4	Analyze the performance of the various Page Replacement Algorithms
			C217.5	Implement file organization and File allocation Strategies
C301	MA6566	Discrete Mathematics	C301.1	solve mathematical arguments using logical equivalences
			C301.2	apply basic counting techniques to solve combinatorial problems
			C301.3	Draw different graphs using vertices as objects and edges represents the relationship between objects
			C301.4	use different methods like mathematical induction , proof by contradiction ,dirct and indirct method to prove the statements
			C301.5	Check whether the function is abelian or not
			C301.6	Apply Logical equivalences in lattices and Boolean algebra
C302	CS6501	Internet Programming	C302.1	Design a responsive web site using HTML5 and CSS3
			C302.2	Develop JavaScript code that works in all major browsers
			C302.3	Develop applications using SERVELETS and JSP
			C302.4	Create Dynamic web site using server side PHP Programming and Database connectivity
			C302.5	Develop a well formed / valid XML document
			C302.6	Develop interactive web applications using AJAX and web services
C303	CS6502	Object Oriented Analysis and Design	C303.1	Explain OOAD concepts and various UML diagrams
			C303.2	Use the appropriate design patterns, to solve the problems in software design
			C303.3	Apply domain models and conceptual class concepts in various problem domains
			C303.4	Implement the code from UML Class diagram
			C303.5	Compare and contrast various testing techniques
			C303.6	Design a software and hardware system by using different UML diagrams
C304	CS6503	Theory of Computation	C304.1	Design algorithms for any given problem
			C304.2	Solve Computational problems using brute force and divide and conquer algorithm design technique
			C304.3	Solve problems using Greedy and dynamic programming techniques
			C304.4	Solve problems using iterative methods
			C304.5	Solve problems using backtracking branch and bound

Prof. Dr. A. Leela, Ph.D.
PRINCIPAL
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
600 030, VELLUR, MARATHAM DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
 Catholic Diocese of Marthandam
 Approved by AICTE. Affiliated to Anna University, Chennai
 (A NAAC Accredited Institution)

Course	Course Code	Course Name	Course Outcome
			concepts that are intended to implement in distributed system
			C309.4 Discuss how the time and global states and fault tolerant services are involved in distributed systems
			C309.5 Discuss the management of process and resources in distributed systems
			C309.6 Explain the role of remote method invocation process to implement communication in distributed systems
C310	IT6601	Mobile Computing	C310.1 Compare the features of different categories of MAC protocols
			C310.2 Apply the knowledge of TCP/IP extensions for mobile and wireless networking
			C310.3 Classify different types of mobile telecommunication systems
			C310.4 Analyze various routing protocols in Mobile Ad-hoc networks
			C310.5 Explain the various features of Mobile operating system
			C310.6 choose appropriate mobile operating systems in developing mobile applications
C311	CS6660	Compiler Design	C311.1 Explain the phases of a Compiler
			C311.2 express language token using regular expression, context free grammar and finite automata and implement a simple lexical analyzer
			C311.3 Illustrate the translation of regular expression into parse tree using syntax analyzer
			C311.4 Construct the intermediate representation considering the type systems
			C311.5 Apply the optimization techniques for the generated code
			C311.6 Use the different compiler construction tools to develop a simple compiler
C312	IT6502	Digital Signal Processing	C312.1 understand the concepts of signals and systems
			C312.2 Perform frequency transforms for the signals
			C312.3 Design Infinite Impulse Response filters
			C312.4 Design Finite Impulse Response filters
			C312.5 understand the finite word length effects in digital filters
			C312.6 Design multirate sampling systems
C313	CS6659	Artificial Intelligence	C313.1 Design and implement AI techniques such as state-space search algorithms, Min-Max algorithm, for solving problems
			C313.2 Apply knowledge representation, reasoning, and machine learning techniques to solve problems
			C313.3 Design and implement expert systems using AI algorithms
			C313.4 Solve uncertainty problems using probabilistic techniques
			C313.5 Design and implement planning algorithm for solving optimization problems

Prof. Dr. A. Lenin Fred, M.E., Ph.D.
 PRINCIPAL
 MAR EPHRAEM COLLEGE
 OF ENGINEERING & TECHNOLOGY
 MAIANKARA HILLS, EL AVUVILAI, MARTHANDAM - 629 171
 KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
			C313.6	Design and implement appropriate learning algorithms such as decision trees
C315	CS6611	Mobile Application Development Laboratory	C315.1	develop an application using GUI components and Mobile application development framework
			C315.2	Develop an application using basic graphical primitives and databases
			C315.3	Construct an application using multi threading and RSS feed
			C315.4	apply GPS for location identification applications
			C315.5	design a new applications to hand held devices
C316	CS6612	Compiler Laboratory	C316.1	Develop the code for the different Phases of compiler using tools
			C316.2	Analyze the control flow and data flow of a typical program
			C316.3	Modify a given program for performing optimization
			C316.4	Develop an assembly language program equivalent to a source language program
C317	GE6674	Communication and Soft Skills- Laboratory Based	C316.5	Develop the code for front-end of the compiler and code generator
			C318.1	Understand the nuances of language through audio, visual materials and group activities
			C318.2	Build professional thinking in various critical contexts
			C318.3	Develop fluency in spoken english and neutralize mother tongue influence
			C318.4	Apply language skills in interviews and future job environments
C401	CS6701	Cryptography and Network Security	C318.5	Develop their skills in international exams like IELTS and TOFEL
			C401.1	Classify the classical encryption techniques
			C401.2	Explain the cryptographic operations and algorithms of public key cryptography
			C401.3	Understand the various authentication schemes used in different applications
			C401.4	Understand various security practices and system security standards
			C401.5	Explain the various web security practices and web security standards
C402	CS6702	Graph Theory and Applications	C401.6	Apply the various cryptographic algorithms in encrypting and decrypting messages
			C402.1	Draw the graph for the provided conditions
			C402.2	Evaluate the distance, center, degree and weight of a graph
			C402.3	Apply the color for a graph for the given condition
			C402.4	Apply the principles of permutation and combination in arranging different objects
			C402.5	Solve the homogeneous and non homogeneous linear recurrence relations
C402.6	Solve the generating function			

Prof. Dr. A. ... M.E., Ph.D.
PRINCIPAL
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALLINGARAJAPALLE, ELAVUVILAI, MARTHANDAM - 629 171
MARTHANDAM DISTRICT, TAMILNADU, INDIA



Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
C403	CS6703	Grid and Cloud Computing	C403.1	Analyze and identify the appropriate providers for cloud service models
			C403.2	explain how Grid computing helps in solving large scale scientific problems
			C403.3	explain the data intensive grid service models and grid computing toolkits
			C403.4	Apply the virtualization concepts for different applications in cloud computing environment
			C403.5	Solve complex problems using MapReduce concepts
			C403.6	Explain the security issues in grid and cloud environment
C404	CS6704	Resource Management Techniques	C404.1	solve the linear programming problems using simplex method
			C404.2	solve the optimization problems using dual programming problem.
			C404.3	solve the transportation problem
			C404.4	solve the optimization problems using branch and bound methods.
			C404.5	solve the non- linear programming problems using dynamic programming method
			C404.6	Evaluate the project completion time using CPM and PERT.
C408	CS6711	Security Laboratory	C408.1	Apply the different substitution and transposition techniques
			C408.2	Develop the Symmetric key Cryptographic technique using DES and AES algorithm
			C408.3	Develop the asymmetric key cryptographic technique using RSA algorithm
			C408.4	Demonstrate the Diffie/Hellman key exchange algorithm and message digest process
			C408.5	Show the Digital signature for secure data transmission and Demonstrate vulnerability assessment tool and network security tool
C409	CS6712	Grid and Cloud Computing Laboratory	C409.1	Develop secured applications using Java in Grid
			C409.2	Experiment with applications on grid
			C409.3	Analyze various procedures to run virtual machines of different configurations
			C409.4	Build cloud applications on Cloud
			C409.5	Demonstrate the use of map and reduce tasks
C410	CS6801	Multi - Core Architectures and Programming	C410.1	Compare SIMD and MIMD systems
			C410.2	Apply the synchronization techniques and deadlock algorithms in parallel programming
			C410.3	Write programs for shared memory model using OpenMP.
			C410.4	Write programs for distributed memory model using MPI.

Prof. Dr. A. Lenin Fred, M.E., Ph.D.

PRINCIPAL

MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANKARA HILLS, EL ANAVILAI, MARTHANDAM - 629 171
KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA




Mar Ephraem

College of Engineering and Technology
Catholic Diocese of Marthandam

Approved by AICTE. Affiliated to Anna University, Chennai
(A NAAC Accredited Institution)

Course	Course Code	Course Name		Course Outcome
			C410.5	Explain the concepts of n-body solver and tree search algorithms.
			C410.6	Compare various OpenMP and MPI implementations based on the performance measures.
C414	CS6811	Project Work	C414.1	Identify the problem by applying acquired knowledge.
			C414.2	Analyze and categorize executable project modules after considering risks
			C414.3	Develop possible solutions for the analysed problem
			C414.4	Choose efficient tools for designing project modules
			C414.5	Develop optimal solutions considering the time and space efficiency
			C414.6	Combine all the modules through effective team work after efficient testing
			C414.7	Organize the project through work plan and detailed budgets
			C414.8	Elaborate the completed task and compile the project report
			C414.9	Influence effectively as a individual and team member


HOD


Prof. Dr. A. Lenin Fred, M.E., Ph.D.
PRINCIPAL
MAR EPHRAEM COLLEGE
OF ENGINEERING & TECHNOLOGY
MALANBARA HILLS, ELAVUMILAI, MARTHANDAM - 623 174
KANNIYAKUMARI DISTRICT, TAMILNADU, INDIA.