

ER.PERUMAL MANIMEKALAI COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



COURSE OUTCOMES

REGULATION: 2013

S.NO	COURSE NAME		COURSE OUT COMES
	II.	C101.1	Understand the basic grammatical functions and vocabulary.
	Snglish	C101.2	Speak and write clearly and communicate using appropriate communicative strategies
1	echnical E (HS6151)	C101.3	Write Informal letters /blog/email with a wide range of vocabulary
	C101- Technical English – I (HS6151)	C101.4	listen/view and comprehend different spoken discourses and passages in different accents.
	C101	C101.5	Read and write different genres of texts.
	I-	C102.1	Understand the Concepts of Diagonalization of matrices.
	natics 1)	C102.2	Apply simple techniques for testing the convergence of sequences and series
2	Mathema (MA6151)	C102.3	Use the differentiation concepts to differentiate functions
	C102 - Mathematics - I (MA6151)	C102.4	Apply partial differentiation in functions of several variables.
	C10	C102.5	Apply integration concepts to compute multiple integrals.
		C103.1	Able to classify various crystal structures and its parameters.
	sics – I	C103.2	Explain the basics of properties of matter, the thermal properties of materials like thermal conductivity and its application.
3	neering Phy (PH6151)	C103.3	Acquire knowledge on the concepts of quantum theory and its application in tunneling microscopes.
	Egineer (PH	C103.4	Understands the basic concepts of Acoustics in buildings and the production of ultrasonic waves and its application in NDT and medical field.
	C103 - Egineering Physics – I (PH6151)	C103.5	Understands the concept of photonics and its usage in the production of different types of laser and the principle of fibre optics with its application in various fields.
	(1)	C104.1	Understand the types of water and water treatment techniques.
	eering Y615	C104.2	Utilize the various adsorbent in industries.
4	C104 - Engineering Chemistry-1 (CY6151)	C104.3	Classify the types of alloys and understand the component present in the alloys.
	104 - remistr	C104.4	Explain the types of fuels and manufacturing of secondary fuels.
	C C	C104.5	Illustrate the types of energy resources.
	<u> </u>	C105.1	Know the organization of digital Computer
	uter E6151)	C105.2	Design C Programs for problems.

S.NO	COURSE NAME		COURSE OUT COMES
5	C105 - Comp	C105.3	Write and execute C programs using Arrays and Strings for simple applications
		C105.4	Usage of Pointers and Function in C programming
	pro	C105.5	Design Programming using Structures and Union
	_	C106.1	Discuss about conics and orthographic views of engineering components
	eering 6152)	C106.2	Draw the projection of points, lines and planes
6	Engine s (GE	C106.3	Classify solids and projection of solids at different positions
	C106 - Engineering Graphics (GE6152)	C106.4	Show sectioned view of solids and development of surface
	0	C106.5	Draw isometric projection and perspective views of an object/solid
	ses	C107.1	Know about Data Manipulation in MS Office Packages
	C107 - Computer Practices Laboratory (GE6161)	C107.2	Apply good programming design methods for program development using Decision making and looping statements.
7	mpute ory (C	C107.3	Design and implement C programs using strings and arrays.
	7 - Coı aborat	C107.4	Design and implement C programs using functions and string functions.
	C10 I	C107.5	Develop recursive functions and develop programs using structures and unions.
	ctices	C108.1	Apply the knowledge of pipeline connections to household fittings and industrial buildings.
	g Prae E616	C108.2	Prepare the different joints in roofs, doors, windows and furniture.
8	ineering Practi ory (GE6162)	C108.3	Perform step turning operation in a lathe.
	C108 - Engineering Practices Laboratory (GE6162)	C108.4	Perform the various welding processes and know about its applications.
	C108	C108.5	Produce a funnel using sheet metal.
	nistry (3)	C109.1	Understand the concept of Laser and its diffraction for different usage
	Chen 3E616	C109.2	Able to find the velocity of ultrasonic waves in different liquid.
9	C109 - Physics and Chemistry Laboratory - I (GE6163)	C109.3	Apply principle of diffraction to determine the wavelength of visible spectrum.
	- Phys	C109.4	Understand the various parameter affecting the thermal conductivity of poor conductor
	C109 Lal	C109.5	Analyze the various modulus of elasticity of different types of materials.
	II q	C110.1	Understand basic grammar and know to engage in conversation.
	Englis)	C110.2	Write and produce different types of technical write ups.
10	Technical English II (HS6251)	C110.3	Read and write different genres of technical texts.
	- Tech (H3	C110.4	Create Job applications and Resume / E - Resume

S.NO	COURSE NAME		COURSE OUT COMES		
	C110	C110.5	Express opinions and initiate a discussion using appropriate communicative strategies		
	51)	C111.1	Understand the concepts of Vector Calculus and their applications.		
	ering MA62	C111.2	Interpret the Concepts of analytic functions and Conformal mapping.		
11	ngine - II (l	C111.3	Understand the integration concepts on Complex integration		
	C111 - Engineering Mathematics - II (MA6251)	C111.4	Demonstrate the main concepts on Laplace transformations and their applications		
	Math	C111.5	Use various techniques in solving differential equations.		
	Ш	C112.1	Gain knowledge on the conducting materials and its properties		
	hysics -	C112.2	Acquire knowledge on the concepts of carrier concentration in intrinsic and extrinsic semiconductors and its determination using Hall effect.		
12	incering P (PH6251)	C112.3	Classify the different types of magnetic materials and know the properties of superconductors.		
	C112 - Engineering Physics - II (PH6251)	C112.4	Understands the basic concepts of dielectric materials and its usage in capacitors and transformers.		
	C112	C112.5	Able to classify the different modern engineering materials and its application in different fields.		
	51)	C113.1	Illustrate the types of electrochemical cell		
	ering	C113.2	Summarize the types of corrosion and corrosion prevention methods.		
13	Engine	C113.3	Explain the types of fuels and manufacturing of secondary fuels.		
	C113 - Engineering Chemistry - II (CY6251)	C113.4	Classify the types of alloys and understand the component present in the alloys.		
		C113.5	Analyze the sample using various spectroscopies.		
	and (11)	C114.1	Perform arithmetic operations in any number system		
	nciple: (CS62	C114.2	Simplify the Boolean expression using K-Map and Tabulation techniques.		
14	C114 - Digital Principles and System Design (CS6201)	C114.3	Use boolean simplification techniques to design a combinational hardware circuit.		
	4 - Dig	C114.4	Design and Analysis of a given digital circuit – combinational and sequential.		
	C11 ² Sy	C114.5	Design using PLD.		
	und (02)	C115.1	Know the basics of data structures in programming		
	ming (CS62	C115.2	Use the control structures of C appropriately for problems.		
15	gram ure-I (C115.3	Implement abstract data types for linear data structures.		
	C115 - Programming and Data Srtucture-I (CS6202)	C115.4	Apply the different linear data structures to problem solutions.		
	C11: Data	C115.5	Critically analyse the various sorting and searching algorithms and learn to use hash techniques.		

S.NO	COURSE NAME		COURSE OUT COMES	
	(2)	C 116.1	Analyze the various modulus of elasticity of different types of materials.	
	(GE626	C 116.2	Understand the various parameters affecting the band gap of semiconductor.	
	ratory II	C 116.3	Apply principle of diffraction to determine the parameters of optical prism.	
	C116 - Engg Physics & Chemistry Laboratory II (GE6262)	C 116.4	Analyze the co-efficient of viscosity of different liquids.	
16	Chemist	C 116.5	Apply the basic principles of optics to determine the thickness of thin materials.	
	/sics & (C 116.6	Understand the types of water and its important parameters.	
	ngg Phy	C 116.7	Apply instrumentation method to calculate the strength of the solution.	
	.16 - E	C 116.8	Analyze the amount of salt present in the solution.	
	2	C 116.9	Analyze the rate of corrosion by weight loss method.	
	ory	C117.1	Apply boolean simplification techniques to design a combinational hardware circuit.	
	C117 - Digital Laboratory (CS6211)	C117.2	Design and Implement combinational and sequential circuits.	
17		C117.3	Analyze a given digital circuit – combinational and sequential.	
		C117.4	Simulate and implement combinational and sequential circuits using VHDL systems.	
		C117.5	Design and Implement a simple digital system.	
	ng And Data ory (CS6212)	C118.1	Analyze and implement C programs using pointers, control structures and data structures	
		C118.2	Design and implement C programs for implementing stacks, queues, linked lists.	
18	C118 - Programming And Structure-I Laboratory (CS0	C118.3	Apply good programming design methods for program development.	
	3 - Prog ture-I]	C118.4	Execute the different data structures for implementing solutions to practical problems.	
	C118 Struc	C118.5	Develop searching and sorting programs and checking their complexities.	
	tial 6351)	C201.1	Apply various techniques in solving the partial differential equations.	
	nd Par (MA)	C201.2	Evaluate the Fourier Series using the different methods of integral.	
19	C201- Transforms and Partial Differential Equations (MA6351	C201.3	Analyze the application of partial differential equations in a large number of engineering subjects like heat conduction and wave equations	
	Trans ıtial E	C201.4	Apply integration techniques to formulate the Fourier transforms.	
	C201- Differer	C201.5	Apply Z - transforms and Difference equations to solve some of the engineering problems.	
	E.	C.202.1	Understand the basic fundamental concepts of object oriented Programming.	

S.NO	COURSE NAME		COURSE OUT COMES
	C202 - Programming and Da Structure II (CS6301)	C202.2	Design and trace the algorithms for simple problems and for various operations on different data structures studied.
20		C202.3	Develop knowledge of applications of data structures including the ability to implement algorithms for the creation, insertion, deletion, searching, and sorting of each data structure.
	2 - Prog Structui	C202.4	Apply the concepts of data abstraction, encapsulation and inheritance for problem solutions.
	C20	C202.5	Understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures.
	ment	C203.1	Describe the fundamentals of data models and to represent a database system using ER diagrams.
	Manager S6302)	C203.2	Explain SQL and relational database design and Map ER model to Relational model to perform database design effectively
21	C203 - Database Management Systems (CS6302)	C203.3	Illustrate the fundamental concepts of transaction processing – concurrency control techniques and recovery procedures.
)3 - Da Sys	C203.4	Compare and contrast various indexing strategies in different database systems.
	C2(C203.5	Synthesis how advanced databases differ from traditional databases.
	C204 - computer Architecture (CS6303)	C202.1	Understand the theory and architecture of central processing unit.
		C202.2	Analyze some of the design issues in terms of speed, technology, cost, performance.
22		C202.3	Understand the parallel Processing Architecture.
		C202.4	Identify, compare and assess issues related to ISA, memory, control and I/O functions.
		C202.5	Analyze the Performance of a Computer Memory Systems.
	igital 3304)	C205.1	Understand the various concept of analog communication techniques
	C205 - Analog and Digital Communication (CS6304)	C205.2	Explain digital communication techniques
23	alog a cation	C205.3	Compare data and pulse communication techniques
	i - An muni	C205.4	Analyze Source and Error control coding.
	C205 Com	C205.5	Utilize multi-user radio communication.
	ıtal S	C206.1	Understand the types, characteristics of Ecosystem and Biodiversity
	onmer Enga 1)	C206.2	Explain the types of pollution and its causes
24	- Environn ence and Er (GE6351)	C206.3	Explain the importance of Natural Resources
	C206 - Environmental Science and Engg (GE6351)	C206.4	Understand the environmental problems
	C2 S	C206.5	Understand the importance of Women, Child education and HIV
)ata (311)	C207.1	Know about functions, constructors and its types

S.NO	COURSE NAME		COURSE OUT COMES		
	ig and D	C207.2	Design and implement C++ programs for manipulating stacks, queues, linked lists, trees, and graphs.		
25	C207 - Programming and D Structure Laboratory II (CS6	C207.3	Apply good programming design methods for program development.		
)7 - Prog	C207.4	Apply the different data structures for implementing solutions to practical Problems.		
	C2(C207.5	Implement recursive programs using trees and graphs.		
	ment 5312)	C208.1	Understand data definitions and data manipulation commands		
	C208 - Database Management Systems Laboratory (CS6312)	C208.2	Demonstrate the use of nested and join queries		
26	ıbase N borato	C208.3	Illustrate the functions, procedures and procedural extensions of data bases.		
	- Data ms La	C208.4	Implement applications that require a front-end tool		
	C208 Syste	C208.5	Develop solutions using database concepts for real time requirements		
	53)	C209.1	Understand the fundamental knowledge of the Probability and distributions.		
	ty and MA64	C209.2	Understand the basic concepts of one and two dimensional random variables.		
27	C209 - Probability and Queuing Theory (MA6453)	C209.3	Understand the concept of Markov chain in terms of a transition probability matrix and transition diagram.		
		C209.4	Interpret the Concepts of Queuing models.		
		C209.5	Apply non Markovian queues to open and closed networks.		
	r 51.)	C210.1	Understand the network layer and its functions.		
	C210 - Computer Networks (CS6551)	C210.2	Understand the data link layer protocols		
28		C210.3	Outline the functions of network layer and various routing protocols.		
		C210.4	Familiarize the functions and protocols of the transport layer		
		C210.5	Understand the working of various application layer protocols		
		C211.1	Gain knowledge about basic concepts and functions of operating system.		
	C211 - Operating Systems (CS6401)	C211.2	Demonstrate and apply various kinds of scheduling algorithms and deadlock and avoidance algorithm.		
29	- Op	C211.3	Summarize and compare various storage management schemes		
	Syste:	C211.4	Compare the different file systems and I/O systems.		
	0 07	C211.5	Analyze and characterize IOS and Android operating system.		
	llysis ns	C212.1	Understand the different types of algorithms		
	- Design and Analysis Algorithms Systems (CS6402)	C212.2	Design algorithms for various computing problems using brute force method and divide and conquer methodologies.		
30	Sesign and sorithms Syl(CS6402)	C212.3	Apply the time and space complexity of Dynamic Algorithms		
	2 - De ? Algo (C212.4	Apply the different algorithm design techniques for a given graph based problem		

S.NO	COURSE NAME	COURSE OUT COMES		
	C21;	C212.5	Analyze the complexities and Modify existing algorithms to improve efficiency.	
	and 04)	C213.1	Explain the architecture of 8086 Microprocessor and its functions	
	essor EC65	C213.2	Classify 8086 bus interfacing structure	
31	oproc oller (C213.3	Illustrate the design aspects of I/O and Memory Interfacing	
	C213 - Microprocessor and Microcontroller (EC6504)	C213.4	Explain the architecture of 8051 Microcontroller and its functions	
	C213 Micr	C213.5	Design and implement 8051 microcontroller based systems.	
	03)	C214.1	Identify the key activities in managing a software project.	
	C214 - Software Engineering (CS6403)	C214.2	Compare specifications in different process models.	
32	- Soft ing ((C214.3	Acquire knowledge of requirements engineering ,Analysis andModeling.	
	7214 ineer	C214.4	Apply systematic procedure for software design and deployment.	
	CEng	C214.5	Apply and Compare the various kinds of testing.	
	11)	C215.1	Demonstrate the socket program using TCP & UDP	
	C215 - Networks Laboratory (CS6411)	C215.2	Develop simple applications using TCP & UDP	
33	Nets	C215.3	Develop the code for Data link layer protocol simulation	
	.215 -	C215.4	Examine the performances of Routing protocol	
	C	C215.5	Experiment with congestion control algorithm using network simulator	
	1 y	C216.1	Understand the fundamentals of assembly level programming of microprocessors & microcontrollers	
	Aicroprocessor and ntroller Laboratory (CS6412)	C216.2	Apply the programming knowledge for arithmetic and logical operations, sorting, searching and string manipulations in 8086 & 8051	
34		C216.3	Contrast how different I/O devices can be interfaced to processor and will explore several techniques of interfacing	
	C216 - Micropro Microcontroller (CS641)	C216.4	Apply the programming knowledge for understanding of communication standards in 8086 & 8051	
		C216.5	Develop the programs for 8051 using kits and MASM	
	ry	C217.1	Know the basic of Unix commands and apply Shell programming	
	rating orato	C217.2	Implement deadlock avoidance, and Detection Algorithms	
35	7 - Opera ms Labor (CS6413)	C217.3	Compare the performance of various CPU Scheduling Algorithm	
	C217 - Operating Systems Laboratory (CS6413)	C217.4	Analyze the performance of the various page replacement algorithms	
	Sy	C217.5	Generate the process and implement IPC	
	tics	C301.1	Understand and simplify basic logic statements, predicates and proofing methodology.	
	rrete Mathematics 1A6566)	C301.2	Apply basic counting techniques to solve permutation and combinatorial problems.	
36	crete Mat AA6566)	C301.3	Apply graph theory in data structures and real world problems.	

S.NO	COURSE NAME	COURSE OUT COMES		
	C301 - Dise	C301.4	Demonstrate the concepts and properties of algebraic structures such as groups, rings and fields.	
		C301.5	Understand the basic concepts of Posets, Lattices and Boolean algebra	
	ing	C302.1	Explain the concepts of Control Statements, I/O Applet and Threading	
	ramn	C302.2	Develop a basic website using HTML and Cascading Style Sheets	
37	C302 - Internet Programming (CS6501)	C302.3	Compare and contrast the Java Script programming for client and server along with its event handling mechanisms	
	- Intern (CS	C302.4	Build a simple web page in PHP with XML data format	
	C302	C302.5	Explain web services and client presentation using AJAX	
	nted ign	C303.1	Design and implement projects using OO concepts.	
	C303 - Object Oriented Analysis And Design (CS6502)	C303.2	Use the UML analysis and design diagrams.	
38	Object O ₁ sis And D (CS6502)	C303.3	Know the next generation POS systems.	
	13 - O nalysie (C	C303.4	Apply appropriate design patterns.	
	C30 Ar	C303.5	Design models and Compare various testing techniques.	
	.f 503)	C304.1	Design Finite State Machine and Automata and solve problems on Pumping lemma.	
	ory o (CS6;	C304.2	Construct Regular grammar and context free grammar	
39	C304 - Theory of Computation (CS6503)	C304.3	Construct Pushdown Automata for regular grammars	
		C304.4	Design Turing Machine for a given problems	
		C304.5	Explain the Decidability or Undecidability of various problems	
	hics	C305.1	Acquire knowledge about Computer Graphics and design two dimensional graphics.	
	Grap)	C305.2	Apply two dimensional algorithms.	
40	C305 - Computer Graphics (CS6504)	C305.3	Design and apply three dimensional transformations graphics representation and methods	
	5 - C	C305.4	Learn and implement illumination and Colour Models	
	C30	C305.5	Design animation sequences and Computer Graphics realism.	
	s 11)	C306.1	Design and implement projects using OO concepts	
	Tool	C306.2	Use the UML analysis and design diagrams.	
41	Case ory ((C306.3	Apply appropriate design patterns for a domain model.	
	C306 - Case Tools Laboratory (CS6511)	C306.4	Create code from design.	
	C	C306.5	Compare and contrast various testing techniques	
	tory	C307.1	Design Web pages using HTML/XML and style sheets	
	- Internet ng Laboratory (6512)	C307.2	Implement user interfaces using Java frames and applets.	
42	- Internet ng Labor 36512)	C307.3	Use dynamic web pages using server side scripting.	

S.NO	COURSE NAME		COURSE OUT COMES
	C307 rammi (CS	C307.4	Write Client Server applications.
	C307 Programmi (C9	C307.5	Use the frameworks JSP Strut, Hibernate, Spring Create applications with AJAX
	ır ory	C308.1	Implementation of Algorithms for drawing 2D Primitives
	npute oorato 3)	C308.2	Design and implement 2D Geometric transformations
43	18 - Comp hics Labor (CS6513)	C308.3	Relate 3D graphical scenes using open graphics library suits
	C308 - Computer Graphics Laboratory (CS6513)	C308.4	Implement image manipulation and enhancement
	5	C308.5	Use 2D animations using tools in the programs
	tems	C309.1	Understand the knowledge of the basic elements and concepts related to distributed system technologies for identify core architectural aspects of distributed systems
	d Sys	C309.2	Design and implement distributed applications
44	C309 - Distributed Systems (CS6601)	C309.3	Identify the main underlying components of distributed systems and use those components for building a distributed system
	309 - D	C309.4	Use and apply important methods in distributed systems to support scalability and fault tolerance
	C.	C309.5	Demonstrate experience in building large-scale distributed applications.
	11)	C310.1	Explain the basics of mobile Computing
	obile IT66(C310.2	Describe the functionality of Mobile IP and Transport Layer
45	C310 - Mobile Computing (IT6601)	C310.3	Classify different types of mobile telecommunication systems
		C310.4	Demonstrate the Adhoc networks concepts and its routing protocols
		C310.5	Make use of mobile operating systems in developing mobile applications
	(09999	C311.1	Demonstrate the fundamental knowledge of various phases of compiler and Programming Language basics.
	C311- Compiler Design (CS6660)	C311.2	Represent language tokens using regular expressions, context free grammar and finite automata and design lexical analyzer for a language.
46	piler De	C311.3	Compare top down with bottom up parsers, and develop appropriate parser to produce parse tree representation of the input.
	- Com	C311.4	Write program in runtime environment and evaluate the code generation platform.
	C311	C311.5	Apply optimization techniques to intermediate code and generate machine code for high level language program.
	gnal 02)	C312.1	Classify the Discrete signals and systems and analyze Discrete systems using z-transform.
	ial Sig (IT65	C312.2	Solve problems on LTI systems using Fourier transforms.
47	Digit sing	C312.3	Formulate and design IIR filtering in digital domain.
	C312 - Digital Signal Processing (IT6502)	C312.4	Design FIR filter in digital domain.
	C. P	C312.5	Explain the finite word length effects in Digital filters.
	(65	C313.1	Know about Artificial Intelligence Problems Solving methods

S.NO	COURSE NAME		COURSE OUT COMES
	ificial CS66	C313.2	Recognize various representations such as Logical languages and Solve problems
48	C313 - Artificial Intelligence (CS66	C313.3	Understand Expert Systems- Inference Systems Input , Output and Process
	C313 ellige	C313.4	Implement Artificial Intelligence Algorithms and their use
	Int	C313.5	Know about Real Time Applications of AI
	sing 702)	C314.1	Illustrate the data warehouse concepts, architecture.
	ehous	C314.2	Interpret the business analysis and tools
49	C314 - Data Warehousing And Data Mining (IT6702)	C314.3	Apply suitable pre-processing, visualization, techniques, frequent pattern and association techniques for data analysis.
	4 - D Data	C314.4	Relate and apply various classification techniques.
	C31 And	C314.5	Analyze and apply various clustering techniques.
	11)	C315.1	Develop an application that uses GUI components, Font and Colors.
	C315 - Mobile Application Development Laboratory (CS6611)	C315.2	Develop an application that makes use of database.
50	Application Development Ocatory (CS66	C315.3	Implement an application that implements Multi threading
	C315 Apy Dev Dorat	C315.4	Design and Implement various mobile applications using emulators.
	La	C315.5	Deploy applications to hand-held devices
		C316.1	Implementation of Symbol Table using programming
	npiler	C316.2	Implement the different Phases of compiler using tools
51	C316 - Compiler Laboratory (CS6612)	C316.3	Implement the control flow and data flow of a typical program
		C316.4	Apply the Optimization techniques of a given program
		C316.5	Develop an assembly language program equivalent to a source language Program
	nication Ils - E6674)	C317.1	Take international examination such as IELTS and TOEFL
52	317 - Communication and Soft Skills - Laboratory (GE6674)	C317.2	Make presentations and Participate in Group Discussions.
	C317 - and Labora	C317.3	Successfully answer questions in interviews.
	nd 01)	C401.1	Realize various Cryptographic Techniques
	C401 - Cryptography and Network Security (CS6701)	C401.2	Compare various operations of block ciphers, stream ciphers and public key cryptography.
53	/ptog curity	C401.3	Apply the various hash functions.
	01 - Cry vork Se	C401.4	Illustrate various authentication schemes.
	C4(Netv	C401.5	Apply various security practices and system security standards.
	Theory and (CS6702)	C402.1	Understand the basic concepts and terminologies of graph, isomorphism, trees and its properties.
	Theory an (CS6702)	C402.2	Explain about trees, Connectivity, Planarity and network flows.

S.NO	COURSE NAME		COURSE OUT COMES
54	C402 - Graph ' Applications	C402.3	Interpret about chromatic characteristics and directed graph.
		C402.4	Apply the fundamental knowledge of Counting principles
	C402 Ap	C402.5	Interpret and make use of the concepts of recurrence relations and generating functions.
)3)	C403.1	Outline the concept of Grid and Cloud Architectures.
	id Clc	C403.2	Illustrate the data intensive grid service models and grid computing techniques
55	C403- Grid and Cloud Computing (CS6703)	C403.3	Demonstrate the concept of virtualization in cloud.
)3- G mput	C403.4	Experiment with the programming model for Hadoop and globus toolkit.
	C4(C403.5	Interpret the security models in the grid and cloud environment.
	C404 - Resource Management Techniques (CS6704)	C404.1	Apply simplex method for solving optimization problems with mathematical formulation.
	ssoure Techi 704)	C404.2	Solve Transportation and Assignment problems with real time problems.
56	C404 - Resource agement Technic (CS6704)	C404.3	Apply the concepts of Dynamic and Integer programming problems.
	C40anagei	C404.4	Understanding the Concepts of Constrained and Unconstrained problems
	Ма	C404.5	Explain Pert and Cpm problems in project valuation.
	p _o (C405.1	Understand the XML fundamentals.
	riente 6801)	C405.2	Build application on XML using SAX and DOM.
57	vice O ure (T	C405.3	Illustrate the key principles of service oriented architecture.
	C405 - Service Oriented Architecture (T6801)		Apply various web services technology elements (such as SOAP and UDDI) for realizing SOA.
		C405.5	Demonstrate the various web service standards for service oriented applications.
	nd s	C406.1	Describe the architecture and programming of ARM processor.
	ded a 'stem 3)	C406.2	Outline the concepts of embedded systems
58	C406 - Embedded and Real Time Systems (EC6703)	C406.3	Explain the basic concepts of real time Operating system design.
	6 - E1 al Tir (E0	C406.4	Use the system design techniques to develop software for embedded systems
	C40 Re	(2406.5)	Differentiate between the general purpose operating system and the real time operating system
	1)	C407.1	Develop code for classical encryption techniques to solve the problems
	C407 - Security Laboratory (CS6711)	C407.2	Build cryptosystems by applying symmetric & public key encryption algorithms
59	7 - Se ıtory (C407.3	Construct code for authentication algorithms
	C40' abora	C407.4	Develop a signature scheme using digital signature standard.
	Т	C407.5	Demonstrate the network security system using open source tools
	oud	C408.1	Develop a new web service and implement calculator
	rid and Cloud ng Laboratory S6712)	C408.2	Use the grid and cloud tool kits.
60	rid and ng Labo (S6712)	C408.3	Design and implement applications on the Grid.

S.NO	COURSE NAME		COURSE OUT COMES	
	C408- G Computi (C	C408.4	Design applications on the Cloud.	
	Con	C408.5	Implement applications on the Cloud.	
	01)	C409.1	Explain the SIMD and MIMD Systems	
	core and SS680	C409.2	Design an various parallel programming paradigms and solutions.	
61	Multi cture ing (C	C409.3	Explain the concept of OpenMP Execution	
	C409 - Multicore Architecture and gramming (CS68	C409.4	Describe Distributed Memory Programming MPI Execution	
	C409 - Multicore Architecture and Programming (CS6801)	C409.5	Compare and Contrast programming for serial processor and programming for of parallel processor	
	nputer 108)	nputer 108)	C410.1	Describe the foundations of human computer interaction and design effective dialog for HCI.
	CS6(C410.2	Outline effective HCI for individuals and persons with disabilities	
62	C410 - Human Computer Interaction (CS6008)	C410.3	Explain the various models and theories for Multimedia, WWW and Social networks.	
		C410.4	Develop the platform, application and frameworks for mobile HCI	
		C410.4	Build an mobile interface for HCI.	
	+ -	C411.1	Infer the project and perform project planning	
	rojec 6088)	C411.2	Summarize the budget for the project	
63	C411 - Software Project Managemnt (MG6088)	C411.3	Infer activity planning models and analyze software risk by risk management strategies	
	l - So	C411.4	Apply different models of software process and network planning	
	C411 Man	C411.5	Identify the factors that influence people's behavior in a project environment and people in an organization	
		C412.1	Understand the problem statement in a various domain	
	Work	C412.2	Identify the problem and do the literature survey	
64	- Project V	C412.3	Design a module for solving a problem in the respective area.	
	C412 - Project Work (CS6811)	C412.4	Implement a module for solving a problem identified.	
		C412.5	Evaluate the module results and make improvements.	