



R.M.K. ENGINEERING COLLEGE

(An Autonomous Institution)

R.S.M Nagar, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu- 601206

Affiliated to Anna University, Chennai / Approved by AICTE, New Delhi

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DEPARTMENT OF INFORMATION TECHNOLOGY

Course Outcomes – Even Semester 2021-2022

Sl. No.	Semester	Theory/Practical /Lab Integrated	Course Code / Course Name
1)	4	Theory	20MA402 - Probability and Statistics
2)	4	Theory	20IT402 – Web Technology - Foundation
3)	4	Theory	20CS401 - Computer Architecture
4)	4	Theory	20IT403 - Database Management Systems
5)	4	Theory	20GE301 – Universal Human Values 2: Understanding Harmony
6)	4	Lab Integrated	20IT401 – Software Engineering
7)	4	Practical	20IT411 – Web Technology Laboratory
8)	4	Practical	20IT412 - Database Management Systems Laboratory
9)	4	Practical	20IT413 - Internship
10)	4	Practical	20CS414 – Aptitude and Coding Skills - II
11)	6	Theory	IT8601 – Computational Intelligence
12)	6	Theory	CS8092 – Computer Graphics and Multimedia
13)	6	Theory	IT8602 – Mobile Communication
14)	6	Theory	CS8592 – Object Oriented Analysis and Design
15)	6	Theory	CS8091 – Big Data Analytics
16)	6	Theory	IT8076 – Software Testing
17)	6	Practical	CS8662 – Mobile Application Development Laboratory
18)	6	Practical	CS8582 – Object Oriented Analysis and Design Laboratory
19)	6	Practical	IT8611 – Mini Project
20)	6	Practical	HS8581 – Professional Communication
21)	8	Theory	GE8076 – Professional Ethics in Engineering
22)	8	Theory	IT8005 – Electronic Commerce



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Fourth Semester B.Tech.

20MA402 - Probability and Statistics	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Understand the fundamental knowledge of modern probability theory and standard distributions.
CO2	Categorize the probability models and function of random variables based on one and two dimensional random variables.
CO3	Employ the concept of testing the hypothesis in real life problems
CO4	Implement the analysis of variance for real life problems.
CO5	Apply the statistical quality control in engineering and management problems.

20IT402 – Web Technology - Foundation	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Develop simple web pages using markup languages like HTML and XHTML
CO2	Build dynamic web pages using DHTML and Java script that is easy to navigate and use
CO3	Develop server side web pages that have to process request from client side web pages
CO4	Develop applications using JSP
CO5	Represent web data using XML and develop web pages using JSP
CO6	Explain various web services and how they interact

20CS401 - Computer Architecture	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Explain the basic principles and operations of digital computers
CO2	Design Arithmetic and Logic Unit to perform fixed and floating point operations
CO3	Develop pipeline architectures for RISC Processors
CO4	Summarize Various Memory systems & I/O interfacing
CO5	Recognize Parallel Processor and Multi Processor Architectures.

20IT403 – Database Management Systems	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Classify the modern and futuristic database applications based on size and complexity
CO2	Map ER model to Relational model to perform database design effectively
CO3	Write queries using normalization criteria and optimize queries
CO4	Summarize the properties of transaction and concurrency control mechanisms
CO5	Compare and contrast various indexing strategies in different database systems
CO6	Appraise how advanced databases differ from traditional databases



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20IT401 – Software Engineering	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Identify the key activities in managing a software project
CO2	Compare different process models
CO3	Summarize the concepts of requirements engineering and analysis modeling
CO4	Make use of systematic procedure for software design and deployment
CO5	Compare and contrast the various software testing and maintenance strategies
CO6	Develop project schedule, identify project costs and efforts required

20GE301-Universal Human Values-II: Understanding Harmony	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Would become more aware of themselves, and their surroundings (family, society, nature);
CO2	Would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
CO3	Would have better critical ability
CO4	Would become sensitive to their commitment towards what they have understood (human values, human relationship and human society).
CO5	Would be able to apply what they have learnt to their own self in different day-to-day settings in real life, at least a beginning would be made in this direction.

Laboratory

20IT411 – Web Technology Laboratory	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Design simple web pages using markup languages like HTML and XHTML.
CO2	Develop dynamic web pages using DHTML and java script that is easy to navigate and use
CO3	Implement server side web pages that have to process request from client-side web pages.
CO4	Design and develop interactive and dynamic web pages using jQuery tool.
CO5	Design and develop event driven web servers using NodeJS.

20IT412 - Database Management Systems Laboratory	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Apply typical data definitions and manipulation commands
CO2	Design applications to test Nested and Join Queries
CO3	Implement simple applications that use Views
CO4	Implement applications that require a Front-end Tool
CO5	Critically analyze the use of Tables, Views, Functions and Procedures.



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20IT414 – Aptitude and Coding Skills - II	
COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Develop advanced vocabulary for effective communication and reading skills
CO2	Build an enhanced level of logical reasoning and quantitative skills.
CO3	Develop error correction and debugging skills in programming
CO4	Apply data structures and algorithms in problem solving.

Sixth Semester B.Tech.

IT8601 – Computational Intelligence

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Provide a basic exposition to the goals and methods of Computational Intelligence
CO2	Study of the design of intelligent computational techniques
CO3	Apply the Intelligent techniques for problem solving
CO4	Improve problem solving skills using the acquired knowledge in the areas of reasoning, natural language understanding
CO5	Improve problem solving skills using the acquired knowledge in the areas of computer vision, automatic programming and machine learning
CO6	Use different machine learning techniques to design AI machine and enveloping applications for real world problems.

CS8092 – Computer Graphics and Multimedia

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Discuss about the fundamentals of video display devices and gain knowledge about graphics hardware devices and software used
CO2	Apply two dimensional transformations.
CO3	Apply three dimensional transformations.
CO4	Understand Different types of Multimedia File Format
CO5	Design Basic 3d Scenes using Blende

IT8602 – Mobile Communication

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Summarize the basics of mobile telecommunication system and generations of mobile communication technologies
CO2	Compare various MAC protocols such as TDMA, FDMA and CDMA
CO3	Examine the various mobile telecommunication systems such as GSM, GPRS and UMTS
CO4	Inspect the architectures of various wireless LAN technologies
CO5	Determine the functionality of network layer and Identify a routing protocol for a given Ad hoc networks
CO6	Summarize the functionality of Transport and Application layer



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CS8592 – Object Oriented Analysis and Design

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Gain knowledge in expressing software design with UML diagram
CO2	Design software applications using OO concepts.
CO3	Identify various scenarios based on software requirements
CO4	Transform UML based software design into pattern-based design using design patterns
CO5	Understand the various testing methodologies for OO software

CS8091 – Big Data Analytics

Cos	Course Outcome: The students, after the completion of the course, are expected to
CO1	Identify big data use cases, characteristics and make use of HDFS and Map-reduce programming model for data analytics
CO2	Examine the data with clustering and classification techniques
CO3	Discover the similarity of huge volume of data with association rule mining and examine recommender system
CO4	Perform analytics on data streams
CO5	Inspect NoSQL database and its management
CO6	Examine the given data with R programming

IT8076 – Software Testing

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Design test cases suitable for a software development for different domains
CO2	Identify suitable tests to be carried out
CO3	Prepare test planning based on the document
CO4	Document test plans and test cases designed
CO5	Use automatic testing tools
CO6	Develop and validate a test plan

CS8662 – Mobile Application Development Laboratory

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Develop mobile applications using GUI and Layouts.
CO2	Develop mobile applications using Event Listener.
CO3	Develop mobile applications using Databases.
CO4	Develop mobile applications using RSS Feed, Internal/External Storage, SMS, Multi- threading and GPS.
CO5	Analyze and discover own mobile app for simple needs.



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CS8582 – Object Oriented Analysis and Design Laboratory

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Perform OO analysis and design for a given problem specification
CO2	Identify and map basic software requirements in UML mapping
CO3	Improve the software quality using design patterns and to explain the rationale behind applying specific design patterns
CO4	Test the compliance of the software with the SRS.

IT8611 – Mini Project

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	On Completion of the mini project students will be in a position to take up challenging real world problems and find solution using appropriate methodology

HS8581 - Professional Communication

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Make effective presentations
CO2	Participate confidently in Group Discussions.
CO3	Attend job interviews and be successful in them
CO4	Develop adequate Soft Skills required for the workplace

Eighth Semester B.Tech.

GE8076 – Professional Ethics in Engineering

COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Create awareness on human values and apply ethics in society.
CO2	Identify an ethical issue and assess variety of moral issues using ethical theories in engineering.
CO3	Analyze engineering, social experimentation and engineers as responsible experimenters
CO4	Realize engineers' safety and their responsibilities, professional rights, employee rights, and intellectual property rights.
CO5	Interpret various types of ethics like business ethics, environmental ethics and computer ethics.
CO6	Take part an engineers as managers, consulting engineers, engineers as expert witness and advisors.

IT8005 – Electronic Commerce

Department of Information Technology

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Website: www.rmkec.ac.in

Phone: 044 67906680



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COs	Course Outcome: The students, after the completion of the course, are expected to
CO1	Able to Design Website using HTML CSS and JS
CO2	Able to Design Responsive Sites
CO3	Able to Manage, Maintain and Support Web Apps
CO4	Understand the Security, Challenges and payment system in E-Commerce
CO5	Understanding the Business concepts in E –Commerce
CO6	Show how some of the technologies detailed in the course are used in concert to realise a typical commercial system.