MUTHAYAMMAL ENGINEERING COLLEGE
(An Autonomous Institution)

(Approved by AICTE, New Delhi, Accredited by NAAC, NBA & Affiliated to Anna University)
Rasipuram - 637 408, Namakkal Dist., Tamil Nadu.

Estd. 2000

INSTUTION VISION &MISSION

INSTUTION VISION
To be a Centre of Excellence in Engineering, Technology and Management on par with International Standards.

INSTUTION MISSION
- To prepare the students with high professional skills and ethical values
- To impart knowledge through best practices
- To instill a spirit of innovation through Training, Research and Development
- To undertake continuous assessment and remedial measures
- To achieve academic excellence through intellectual, emotional and social stimulation

INSTUTION MOTTO
Rural upliftment through Technical Education.

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DEPARTMENT VISION & MISSION

DEPARTMENT VISION

To impart quality technical education for students to excel in their professions with social and ethical values to achieve the global level standards

DEPARTMENT MISSION

M1: Quality Education: To impart high quality professional education that leads to global excellence.

M2: Analytical Skill: To empower the students with expertise in solving real world problems through emerging technologies.

M3: Research and Development: To facilitate the students with necessary skill sets to make them technically sound with strong ethical values and to promote research and development in the multidisciplinary fields of Engineering and Technology.

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DEPARTMENT PROGRAM EDUCATIONAL OBJECTIVES, PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES

PROGRAM EDUCATIONAL OBJECTIVES

The Information Technology Graduates should be able to

PEO1: Foundation: To develop the students with programming skill sets with a sound foundation in mathematical, scientific and engineering fundamentals necessary for the core concepts focusing on knowledge up-gradation leading to technical innovations.

PEO2: Analytical Skill: Capable of analyzing and specifying the requirements of the Information Technology system to design and develop using the contemporary tools.

PEO3: Leadership Skill: The Graduates of the programme will have the competencies for communicating, planning, coordinating, organizing and decision making and they will have interpersonal skills and ethical responsibility.

PEO4: Employability Skill: The graduates will practice and demonstrate the ability to use the Knowledge and expertise through the continuous performances which will contribute to the society through active engagement.

PROGRAM OUTCOMES

PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation; make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES

1. Need analysis and design of new technologies
Graduates will be able to design, analyze and test the computer application for the use in information engineering and technologies.

2. Design of embedded system
Design the computer and information based system consisting of digital electronics components, electrical components and micro controller devices; used for applications in microcomputer systems, telecommunications and digital signal propagation.

3. Database administration
Design database system with data mining, warehousing and data security by using big data and advanced security techniques and tools.

4. Integrated computer science project
Ability to evaluate and manage integrated Information Technology project and documentation of substantial scope.

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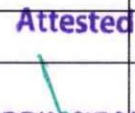
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B.E-Computer Science and Engineering
Percentage of Syllabus Revision

Sl.NO.	Regulation-2016		Regulation-2019		Percentage of Course Content Changed
	Course Code	**Course Title**	**Course Code**	**Course Title**	
1	16SHA01	Technical English	19HSS04	Technical English For Engineers	0
2	16SHA02	Communicative English	19HSS05	Communicative English for Engineers	0
3	16SHA03	Business English	19HSS01	Business English	0
4	16SHA04	Basics of Japanese	19HSS06	Basics of Japanese Language	0
5	-	-	19HSS02	English Communicative Skills Laboratory	100
6	-	-	19HSS03	Life Skills and Workplace Psychology	100
7	16SHB01	Matrices, Calculus and Ordinary Differential Equations	19BSS21	Algebra and Calculus	0
8	16SHB02	Complex variables, Laplace Transforms and Vector Calculus	19BSS22	Differential Equations and Vector Analysis	0
9	16SHB03	Transforms and Partial Differential Equations	19BSS23	Transforms and Partial Differential Equations	0
10	16SHB04	Probability and Random Processes	19BSS27	Probability and Random Processes	0
11	16SHB05	Probability and Queuing Theory	-	-	
12	16SHB06	Numerical Methods	19BSS26	Numerical Methods	0
13	16SHB07	Statistics and Numerical Methods	19BSS28	Statistic and Numerical Methods	0
14	16SHB08	Discrete Mathematics	-	-	
15	16SHB09	Operations Research	-	-	
16	16SHB21	Engineering Physics	19BSS01	Engineering Physics	0
17	-	-	19BSS02	Physics and Chemistry Laboratory	100

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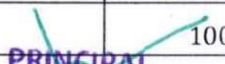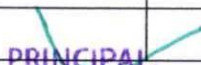|					
18	16SHB31	Engineering Chemistry	19BSS11	Engineering Chemistry	0
19	16SHB32	Environmental Science and Engineering	19BSS12	Environmental Science and Engineering	0
20	-	-	19BSS24	Discrete Mathematics	100
21	-	-	19BSS25	Statistical and Queuing Model	100
22	16CSC01	Fundamentals of Computing and Programming	-	-	
23	16CSC02	Advanced C Programming	-	-	
24	16CSC03	Basics of Civil and Mechanical Engineering	-	-	
25	16CSC04	Basics of Electrical and lectronics Engineering	-	-	
26	16CSC05	Engineering Graphics	-	-	
27	16CSC06	Engineering Practices for Computer Sciences	-	-	
28	16CSC07	Electrical Drives and Control	19GES21	Electrical Drives and Control	0
29	16CSC08	Engineering Mechanics	19GES28	Engineering Mechanics	0
30	16CSC09	Microprocessor and Microcontrollers	-	-	
31	16CSC10	Object Oriented Programming	19CSC06	Object Oriented Programming	50
32	16CSC11	Data Structures	19CSC01	Data Structures and Algorithms	20
33	-	-	19CSC02	Data Structures Lab Using C++ Lab	100
34	16CSC12	Electron Devices	-	-	
35	16CSC13	Circuit Theory	-	-	
36	16CSC14	Digital Principles and System Design	19GES24	Digital Principles and System Design	0
37	16CSC15	Fundamentals of Nanoscience	-	-	
38	-	-	19GES01	Programming for Problem Solving Using C	100
39	-	-	19GES03	Programming in C Laboratory	100
40	-	-	19GES08	Python Programming	100
41	-	-	19GES09	Programming in Python Laboratory	100
42	-	-	19GES19	Concepts in Product Design	100

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43	16CSD01	Advanced Java Programming	-	-	
44	16CSD02	Design and Analysis of Algorithms	19CSC11	Design and Analysis of Algorithms	10
45	16CSD03	Database Management Systems	19CSC03	Database Management Systems	30
46	-	-	19CSC04	Database Management Systems Lab	100
47	16CSD04	Object Oriented Software Engineering	-	-	
48	16CSD05	Operating Systems	19CSC09	Operating Systems`	20
49	-	-	19CSC10	Operating Systems Lab	100
50	16CSD06	Object Oriented Analysis and Design	19CSC23	Object Oriented Analysis and Design	40
51	-	-	19CSC24	Case Tools Lab	100
52	16CSD07	Computer Networks	19CSC07	Computer Networks	0
53	-	-	19CSC08	Computer Networks Lab	100
54	16CSD08	Principles of Compiler Design	19CSC20	Compiler Design	10
55	-	-	19CSC21	Compiler Design Lab	100
56	16CSD09	Cryptography and Network Security	19CSC25	Cryptography and Network Security	0
57	-	-	19CSC26	Cryptography and Network Security Lab	100
58	16CSD10	System Software	-	-	
59	16CSD11	Theory of Computation	19CSC17	Theory of Computation	0
60	16CSD12	Computer Architecture	19CSC05	Computer Organization and Architecture	20
61	16CSD13	Computer Graphics	19CSE11	Computer Graphics	50
62	16CSD15	Advanced Data Structure	-	-	
63	16CSD16	Internet Programming	19CSE09	Internet Programming	50
64	16CSD17	Python Programming	-	-	
65	-	-	19CSC12	Software Engineering	100
66	-	-	19CSC13	Service Oriented Architecture	100
67	-	-	19CSC16	Data Analytics using R and Python	100

70	-	-	19CSC27	Big Data Analytics	100
71	-	-	19CSC28	Animation: Theory and Practice	100
72	-	-	19SC30	Data Analytics and Modeling Techniques	100
73	16CSE01	C# and .Net Framework	19CSE33	C# and .NET Core	40
74	16CSE02	Software Project Management	-	-	
75	16CSE03	Software Testing	-	-	
76	16CSE04	Artificial Intelligence	-	-	
77	16CSE05	Ethical Hacking and Cyber Security	-	-	
78	16CSE06	Soft computing	-	-	
79	16CSE07	Real Time Systems	-	-	
80	16CSE08	Information Storage Management	-	-	
81	16CSE09	Advanced Computer Architecture	-	-	
82	16CSE10	High Speed Networks	-	-	
83	16CSE11	Graph Theory	-	-	
84	16CSE12	Advanced Database Technology	-	-	
85	16CSE13	Digital Image Processing	.	-	
86	16CSE14	Machine Learning Techniques	19CSC29	Machine Learning Techniques	0
87	16CSE15	4G Technologies	.	-	
88	16CSE16	Total Quality Management	.	-	
89	16CSE17	Cloud Computing	19CSC18	Cloud Computing	80
90	-	-	19CSC19	Cloud Computing Lab	100
91	16CSE18	Mobile Computing	19CSC14	Mobile Communication	0
92	-	-	19CSC15	Mobile Application Lab	100
93	16CSE19	Salesforce CRM and Platform	19CSE03	Salesforce CRM and Platform	0
94	-	-	19CSE04	Salesforce CRM and Platform Lab	0

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95	16CSE20	Introduction to Internet of Things	19CSE01	Internet of Things	60
96	-	-	19CSE02	Internet of Things Lab	100
97	16CSE21	Programming in JAVA	-	-	
98	-	-	19CSE05	AWS Academy Cloud Developing	100
99	-	-	19CSE06	AWS Academy Cloud Developing Lab	100
100	-	-	19CSE07	AWS Academy Cloud Architecting	100
101	-	-	19CSE08	AWS Academy Cloud Architecting Lab	100
102	-	-	19CSE10	Current Practices in Software Engineering	100
103	-	-	19CSE12	Distributed Programming	100
104	-	-	19CSE13	Enterprise Project Development using FOSS	100
105	-	-	19CSE14	Parallel Computing	100
106	-	-	19CSE15	Kernel Programming	100
107	-	-	19CSE16	Soft Computing Techniques	100
108	-	-	19CSE17	Virtual Reality	100
109	-	-	19CSE18	Storage infrastructure Management	100
110	-	-	19CSE19	Total Quality Management	100
111	-	-	19CSE20	Cloud infrastructure services	100
112	-	-	19CSE21	Graphics and multimedia	100
113	-	-	19CSE22	Graphics and multimedia laboratory	100
114	-	-	19CSE23	Data warehousing and data mining	100
115	-	-	19CSE24	Software quality assurance	100
116	-	-	19CSE25	Network and routing protocols	100
117	-	-	19CSE26	Scaling and connecting networks	100
118	-	-	19CSE27	Open stack essentials	100
119	-	-	19CSE28	Software Defined Networks	100

120	-	-	19CSE29	Docker and Kubernetes	100
121	-	-	19CSE30	Blockchain	100
122	-	-	19CSE31	User Centric Design	100
123	-	-	19CSE32	Node.js and React.js	100
124	-	-	19CSE34	Agile Methodology	100
125	-	-	19CSE35	Text Mining	100
126	-	-	19CSE36	Angular JS	100
127	-	-	19CSE37	Deep Learning	100
128	-	-	16CSE38	Ubiquitous Computing	100
129	16CSF01	Project work-Phase I	19CSP01	Project work-Phase I	0
130	16CSF02	Project work -Phase II	19CSP02	Project work-Phase II	0
131	16CSF03	Comprehension	19CSP03	Comprehension	0
132	16CSF04	Design Project	-	-	
133	16CSF05	Technical Seminar	19CSP04	Technical Seminar	0
134	16CSF06	Entrepreneurship Development	19CSP05	Entrepreneurship Development	0
135	16CSF07	Soft Skills	-	-	
136	16CSF08	Professional Practices	19CSP06	Professional Practices	0
				Average	62.42