PROGRAM STRUCTURE

I SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
1	192EM1T01	Embedded System Design	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of embedded systems enabling them to be employed for designing and manufacturing of electronic systems
2	192EM1T02	Microcontrollers and Programmable Digital Signal Processors	✓			Students will be able to acquire technical skills to program and interface microcontrollers and DSP processors which enable them to be employed as ES developer.
3	192EM1E01	Digital Signal and Image Processing	✓			Students are able to acquire skills related to implementation of various signal processing and image processing algorithms, enabling them to be employed for designing and manufacturing of communication equipment.
4	192EM1E02	Parallel Processing	✓			Students will be able to acquire technical skills related to parallel processing and pipelining which enable them to be employed as ES developer.Students are able to acquire skills related to design and development of visa signal processing, enabling them to be employed for designing and manufacturing of ICs
5	192EM1E03	VLSI signal processing				
6	192EM1E04	Programming Languages for Embedded Systems	✓			Students are able to acquire skills related to programming languages like embedded c and c++, enabling them to be employed for designing and manufacturing of ES
7	192EM1E05	System Design with Embedded Linux	✓			Students are able to acquire skills related to embedded Linux and microkernel enabling them to be employed for designing and manufacturing of embedded systems

8	192EM1E06	CAD for Digital System	✓			Students are able to acquire skills related to fundamentals of CAD tools for modelling, design, test and verification of VLSI , enabling them to be employed for designing and manufacturing of embedded systems
9	192HS1T01	Research methodology and IPR				
10	192EM1L01	Embedded System Design Lab (using Embedded-C)		✓		Students can gain knowledge about various aspects of embedded systems lab enabling them to be employed as embedded system design engineer
11	192EM1L02	Microcontrollers and Programmable Digital Signal Processors Lab		✓		Students will be able to acquire technical skills to program and interface microcontrollers and DSP processors which enable them to be employed as ES developer.

II SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
12	192EM2T03	Digital System Design	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of digital electronic circuits enabling them to be employed for designing and manufacturing of electronic equipment.
13	192EM2T04	Real Time Operating Systems	✓			Students are able to acquire skills related to design, and evaluate the performance of RTOS enabling them to be employed for designing and manufacturing of embedded systems
14	192EM2E07	Memory Architectures	✓			Students are able to acquire knowledge related to different types of memory architectures enabling them to be employed for designing and manufacturing of embedded systems.
15	192EM2E08	SoC Design				
16	192EM2E09	Sensors & Actuators	✓			Students are able to acquire knowledge related to sensors to measure different parameters like pressure, temperature and actuators like servo motors enabling them to be employed for designing and manufacturing and utilisation of sensors and actuators and systems making use of them
17	192EM2E10	Communication Buses and Interfaces	✓			Students are able to acquire knowledge related to buses used for communication between various blocks of an embedded system enabling them to be employed for designing and manufacturing and utilisation of ES.
18	192EM2E11	Network Security and Cryptography	✓			Students are able to acquire skills related to design, developed and evaluate the performance of secure and cryptographic codes enabling them to be employed for designing and interfacing devices with security

19	192EM2E12	Physical design automation	✓			Students are able to acquire knowledge related to partitioning, placement and routing techniques in a physical design , enabling them to be employed for designing and manufacturing and utilisation of ICs.
20	192EM2L03	Real Time Operating Systems Lab	✓			Students are able to acquire knowledge related to RTOS which are used in time critical applications enabling them to be employed for designing and manufacturing and utilisation of Embedded systems
21	192EM2L04	Digital System Design Lab	✓			Students are able to demonstrate technical skill of designing electronic circuits with programmable ICs.
22	192EM2P01	Mini Project with Seminar	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in electronics and communication domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
23	192MC1A01/192MC2A01	English for Research Paper Writing		✓		Students are able to demonstrate communication writing skills to express fluently in writing form of language which is very much essential for the career growth in research
24	192MC1A02/192MC2A02	Disaster Management				
25	192MC1A03/192MC2A03	Sanskrit for Technical Knowledge				
26	192MC1A04/192MC2A04	Value Education				
27	192MC1A05/192MC2A05	Constitution of India				
28	192MC1A06/192MC2A06	Pedagogy Studies				
29	192MC1A07/192MC2A07	Stress Management by Yoga				
30	192MC1A08/192MC2A08	Personality Development through Life Enlightenment Skills				

31	192MC1A09/192MC2A09	Soft Skills		✓		The students are able to demonstrate Business Communication skills to analze the mistakes in Body language ,formal written communication in the organizations.

III SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
32	172EM3C01	Comprehensive Viva-Voce	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in petroleum engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
33	172EM3R01	Seminar – I	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in petroleum engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
34		Project Work Part – I	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in petroleum engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.

IV SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
35	172EM4R02	Seminar – II	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in petroleum engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
36	172EM4P01	Project Work Part - II	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in petroleum engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
TOTAL		36	22	4	0	

PROGRAM COORDINATOR

HEAD OF THE DEPARTMENT

Head of the Department
Department of E.C.E.
Aditya Engineering College (A9)