PROGRAM STRUCTURE

I SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
1	172EM1T01	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.
2	172VD1T01	VLSI Technology & Design	✓			Students are able to acquire skills related to design, and processing technology, enabling them to be employed for designing and manufacturing of VLSI CHIPS
3	172VD1T02	CMOS Analog IC Design	✓			Students are able to acquire skills related to design of analogy signal processing circuits like pumps, enabling them to be employed for designing of VLSI analogy ICs.
4	172VD1T03	CMOS Digital IC Design	✓			Students are able to acquire skills related to design of digital Ices, like processors, and other programmable devices enabling them to be employed for designing of VLSI digital Ics.
5	172EM1E01	Cyber Security				
6	172VD1E01	Digital Design using HDL	✓			Students are able to acquire skills related to design and implementation of CPLDs and FPGAs using HDLs like Verilog, enabling them to be employed for designing of digital systems.
7	172CO1E02	Advanced Operating Systems	✓			Students are able to understand and acquire skills related to features and functionalities of operating System and understand the utilization of Input &output and memory operations which enables them to be employed for Hardware core side job opportunities
8	172EM1E03	Soft Computing Techniques	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of soft computing techniques enabling them to be employed for designing and manufacturing of efficient embedded systems.

9	172VD1E02	CPLD / FPGA Architectures & Applications	✓			Students are able to acquire skills related to design and implementation of CPLDs and FPGAs using HDLs like Verilog, enabling them to be employed for designing of digital systems.
10	172VD1E03	Hardware Software Co - Design	✓			Students are able to acquire skills related to design and development of hardware and software components of an embedded system enabling them to be employed for designing and manufacturing of embedded systems.
11	172EM1E07	Advanced Computer Architecture	✓			Students are able to acquire skills related to design, and synthesize advanced computers enabling them to be employed for designing and manufacturing of computer architectures.
12	172VD1L01	Front End VLSI Design - Lab		✓		Students are able to demonstrate technical skill of modelling and analysis of digital Systems using front end tools.

II SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
13	172VD2T04	CMOS Mixed Signal Circuit Design	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of mixed signal circuits enabling them to be employed for designing and manufacturing of mixed signal systems.
14	172VD2T05	Embedded System Design				
15	172VD2T06	Low Power VLSI Design	✓			Students are able to acquire skills related to design and development of ices that consume less power, increasing the operating time of battery operated systems, enabling them to be employed for designing and manufacturing of ICs.
16	172VD2T07	Design For Testability	✓			Students are able to acquire skills related to design, implement and evaluate the performance of test circuits built within the chip enabling them to be employed for designing and testing of complex systems.
17	172VD2E04	CAD for VLSI	✓			Students are able to acquire skills related to design and development of ices using CAD tools, algorithms used in CAD tools , enabling them to be employed for designing of CAD tools.
18	172EM2T06	DSP Processors & Architectures	✓			Students are able to acquire skills related to design, implement and evaluate the performance of DSP Processors, enabling them to be employed for designing and manufacturing of communication/signal processing applications.
19	172VD2E05	VLSI Signal Processing	✓			Students are able to acquire skills related to design and development of VLSI signal processing, enabling them to be employed for designing and manufacturing of ICs.
20	172EM2E08	System on Chip Design				

21	172VD2E06	Optimization Techniques in VLSI Design	✓			Students are able to acquire skills related to design and optimise various parameters of ices, enabling them to be employed for designing and manufacturing of ICs.
22	172VD2E07	Semiconductor Memory Design and Testing	✓			Students are able to acquire skills related to design and development of ices involving memory and implementation of testing the memory, enabling them to be employed for designing and manufacturing of ICs.
23	172VD2L02	Back end VLSI Design Laboratory		✓		Students are able to demonstrate technical skill of modelling and analysis of digital Systems using back end tools.

III SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
24	·	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.
25		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.
26		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
27		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.
28		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	28	23	2	0	

PROGRAM COORDINATOR

HEAD FO THE DEPARTMENT

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