

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	172EM1T02	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.
3	172EM1T03	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.
4	172EM1T04	Embedded - C	✓			Students are able to acquire skills related to design, program and evaluate the performance of embedded systems enabling them to be employed for designing and manufacturing of modern electronic equipment.
5	172EM1E01	Cyber Security	✓			Students are able to acquire skills related to design, develop and evaluate the performance of secure systems enabling them to be employed for designing and manufacturing of secure communication equipment
6	172EM1E02	Sensors and Actuators	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of sensors and actuators enabling them to be employed for designing and manufacturing of electrical/ electronic 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				
9	172EM1E04	Embedded Computing	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of embedded computing techniques enabling them to be employed for designing and manufacturing of smart systems
10	172EM1E05	Device Drivers	✓			Students are able to acquire skills related to design, analyse and evaluate the performance of device drivers for various embedded systems enabling them to be employed for designing and manufacturing of embedded systems built around various devices.
11	172EM1E06	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.
12	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.
13	172EM1L01	Embedded Systems Lab		✓		Students are able to acquire skills related to design, program and implement embedded systems and evaluate their performance enabling them to be employed for designing and manufacturing of electronic equipment with embedded systems.

II SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
14	172EM2T05	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.
15	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.
16	172EM2T07	Embedded Networking	✓			Students are able to acquire skills related to design, developed and evaluate the performance of embedded networking protocols enabling them to be employed for designing and manufacturing networked ES.
17	172EM2T08	CPLD / FPGA Architectures & Applications	✓			Students are able to acquire skills related to design, program and evaluate the performance of CPLDs, and FPGAs and enable them to be employed for designing and manufacturing of electrical equipment with CPLDs and FPGAs.
18	172EM2E08	System on Chip Design	✓			Students are able to acquire skills related to integration of systems on single chips enabling them to be employed for designing and manufacturing of system on chips.
19	172VD2T04	CMOS Mixed Signal Circuit Design				
20	172EM2E09	MEMS Design	✓			Students are able to acquire skills related to design, synthesize and evaluate the performance of micro electro mechanical systems

						enabling them to be employed for designing and manufacturing of electronic systems.
21	172EM2E10	Internet Protocols	✓			Students are able to acquire skills related to design, analyse and evaluate the performance of various internet protocols enabling them to be employed for establishing networks of digital systems
22	172VD2T07	Design For Testability				
23	172EM2E11	Wireless LANs and PANs	✓			Students are able to acquire skills related to design, developed and evaluate the performance of various wireless n/ws enabling them to be employed for designing , manufacturing, and establishing wireless networks.
24	172EM2E12	Multimedia & Signal Coding	✓			Students are able to acquire skills related to design, developed and evaluate the performance of multi-media devices enabling them to be employed for designing and manufacturing of communication and display devices
25	172EM2L02	Embedded Real Time Systems Lab		✓		Improves skills related to RTES, which can perform satisfactorily under real time requirements.


III SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
26	172EM3C01	Comprehensive Viva-Voce	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in electronics and communication engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
27	172EM3R01	Seminar – I	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in electronics and communication engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
28		Project Work Part – I	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in electronics and communication 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
29		Seminar – II	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in electronics and communication engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
30	172EM4P01	Project Work Part - II	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in electronics and communication engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
TOTAL		30	25	2	0	


PROGRAM COORDINATOR


HEAD OF THE DEPARTMENT
Head of the Department
Department of E.C.E.
Aditya Engineering College (A9)