Velagapudi Ramakrishna Siddhartha Engineering College (Autonomous)

LIST OF COURSES OFFERED UNDER MINORS

DEPARTMENT OF CIVIL ENGINEERING
(Applicable for CSE, ECE, EEE, EIE, IT,ME)

S.No	Course Code	Course Name	L	T	P	Credits
Fourth Semester						
1	20CEM4701	Introduction to Civil Engineering – Concepts and Materials	3	1	0	4
Fifth Semester						
2	20CEM5702	Methodology for Civil Engineering Construction	3	1	0	4
	20CEM5711	SELF LEARNING				2
Sixth Semester						
3	20CEM6703A	System Design for Sustainability	3	1	0	4
4	20CEM6703B	Ecology & Environment	3	1	0	4
Seventh Semester						
5	20CEM7704A	Infrastructure and Transportation System Planning	3	1	0	4
6	20CEM7704B	Construction Planning and Execution	3	1	0	4
7	20CEM7712	SELF LEARNING				2

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Applicable for CE, ECE, EEE, EIE, ME)

S. No	Course Code	Course Name	Offered in Sem	L	T	P	Credits
1	20CSM4701	Data Structures and Algorithms	IV	3	1	0	4
2	20CSM5702	Relational Database Systems	V	3	1	0	4
3	20CSM6703	Computer Organization and Architecture	VI	3	1	0	4
	Elective (Opt any one of the course)						
1	20CSM7704A	Computer Communications	VII	3	1	0	4
2	20CSM7704B	Software Engineering	VII	3	1	0	4
3	20CSM7704C	Data Science using Python	VII	3	1	0	4
4	20CSM7704D	Fundamentals of Operating Systems	VII	3	1	0	4
5	20CSM7704E	Fundamentals of IoT	VII	3	1	0	4
02MOOCScourses@2creditseach (Any CSE/IT related Program Core subject from NPTEL/ SWAYAM course of 8weeks (2credits) other than the courses listed above needs to Be taken) Any other course or platform deemed essential and approved by the Head of the Department							4
6			IV,V,VI,VII	0	0	0	2
7			IV,V,VI,VII	0	0	0	2
						Grand Total	20

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
(Applicable for CSE, CE, EEE, EIE, IT, ME)

Course Code	Course Name	L	T	P	Credits
	Minors in ECE				
20ECM4701	**Circuits for Analog Signal Processing**	4	0	0	4
20ECM5702	**Digital Circuits**	3	1	0	4
20ECM6703A	**Communication Systems**	4	0	0	4
20ECM6703B	**Microcontrollers**	3	1	0	4
20ECM6703C	**Image & Video Processing**	4	0	0	4
20ECM7704A	**Digital Signal Processing**	3	1	0	4
20ECM7704B	**VLSI Design**	4	0	0	4
20ECM7704C	**Mobile & Cellular Communications**	4	0	0	4
20ECM5711	**Self Learning Course/MOOCS Course 1**				2
20ECM7712	**Self Learning Course/MOOCS Course2**				2
	Total				20

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
(Applicable for CSE, CE, ECE, EIE, IT, ME)

S.No	Course Code	Title of the Course	L	T	P	Credits
Fourth Semester						
1.	20EEM4701B	Elements of Electrical Power Systems	4	0	0	4
Fifth Semester						
2.	20EEM5702B	Energy Conservation & Audit	4	0	0	4
Sixth Semester						
3.	20 EEM6703B	Utilization of electrical energy	4	0	0	4
Seventh Semester						
4.	20 EEM7704B	Linear Control Systems	4	0	0	4

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING
(Applicable for CSE, CE, ECE, EEE, IT, ME)

S.No	Course Code	Name of the Course	L	T	P	S	Credits
1	20EIM4701	Principles of Measurements and Instrumentation	4	0	0	IV	4
2	20EIM5702	Process Instrumentation	4	0	0	V	4
3	20EIM6703	Programmable Logic Controllers	4	0	0	VI	4
4	20EIM7704	Embedded Systems for Automation	4	0	0	VII	4
	20EIM5711	SELF LEARNING					2
	20EIM7712	SELF LEARNING					2

Two MOOCS/NPTEL Courses for 04 credits (02 courses @ 2 credits each) are mandatory

DEPARTMENT OF INFORMATION TECHNOLOGY
(Applicable for CE, ECE, EEE, EIE, ME)

S.No	Course code	Course Name	Offered in Semester	L	T	P	Credits
1	20ITM4701	Data Science With R Software	IV	3	0	2	4
2	20ITM5702	Data Warehousing and mining	V	3	0	2	4
3	20ITM6703	Big Data	VI	3	0	2	4
4	20ITM7704	Data Visualization	VII	3	1	0	4
		(MOOCs - Self Learning)					
5	20ITM5711	Data Science for Engineers	V	-	-	-	2
6	20ITM7712	Data Analytics using Python	VII	-	-	-	2

DEPARTMENT OF MECHANICAL ENGINEERING
(Applicable for CSE, CE, ECE, EEE, EIE, IT)

S.No	Course Code	Title of the Course	L	T	P	Credits
		Fourth Semester				
1.	20 MEM4701	Manufacturing Technology	4	0	0	4
		Fifth Semester				
2.	20 MEM5702	Energy Systems Engineering	4	0	0	4
	20 MEM5711	Self Learning Course	0	0	0	2
		Sixth Semester				
4.	20 MEM6703A	Robotics	4	0	0	4
5.	20 MEM6703B	Engineering Materials	4	0	0	4
		Seventh Semester				
7.	20 MEM7704A	Additive Manufacturing	4	0	0	4
8.	20 MEM7704B	Electric and Hybrid Vehicles	4	0	0	4
	20 MEM7712	Self Learning Course	0	0	0	2