

<b>KLEF</b>
<b>Department of EEE</b>
<b>Y19 B.TECH EEE CURRICULUM STRUCTURE</b>

S.NO	Type of the course	L	T	P	S	C
1	HUMANITIES & SOCIAL SCIENCES	8	0	24	4	12
2	BASIC SCIENCES	17	1	6	4	22
3	ENGINEERING SCIENCES	17	0	16	20	30
4	PROFESSIONAL CORE COURSES	31	1	19	4	42.5
5	SKILLING COURSES	0	0	0	24	6
6	TERM PAPER & PROJECT	0	0	8	48	16
7	FLEXI-CORE	9	2	2	0	12
8	OPEN ELECTIVES	11	0	0	0	11
9	PROFESSIONAL ELECTIVES	15	0	0	0	15
<b>TOTAL</b>		<b>108</b>	<b>4</b>	<b>75</b>	<b>104</b>	<b>166.5</b>

SNO	CAT	COURSE CODE	COURSE NAME	L	T	P	S	Cr	Ch	Pre requisites
1	HSS	19UC1101	BASIC ENGLISH	0	0	4	0	2	4	NIL
2	HSS	19UC1202	ENGLISH PROFICIENCY	0	0	4	0	2	4	NIL
3	HSS	19UC2103	PROFESSIONAL COMMUNICATION SKILLS	0	0	4	0	2	4	NIL
4	HSS	19UC2204	APTITUDE BUILDER-I	0	0	4	0	2	4	NIL
5	HSS	19UC3105	APTITUDE BUILDER-II	0	0	4	0	2	4	NIL
6	HSS	19UC3206	CAMPUS TO CORPORATE	0	0	4	0	2	4	NIL
7	HSS	19UC0007	INDIAN HERITAGE AND CULTURE	2	0	0	0	0	2	NIL
8	HSS	19UC0008	INDIAN CONSTITUTION	2	0	0	0	0	2	NIL
9	HSS	19UC0009	ECOLOGY AND ENVIRONMENT	2	0	0	0	0	2	NIL
10	HSS	19UC0010	UNIVERSAL HUMAN VALUES & PROFESSIONAL ETHICS	2	0	0	0	0	2	NIL
11	HSS	19GN1101	COUNSELLING	0	0	0	4	0	4	NIL
12	HSS	19MT1101	MATHEMATICS FOR COMPUTING	3	1	0	4	5	8	NIL
13	HSS	19MT2102	MATHEMATICS FOR ENGINEERS	3	0	0	0	3	3	NIL
14	HSS	19BT1001	BIOLOGY FOR ENGINEERS	2	0	0	0	2	2	NIL
15	BSC	19PH1006	Materials & Measurements (SCIENCE ELECTIVE--1)	3	0	2	0	4	5	NIL
16	BSC	19CY1101	ENGINEERING CHEMISTRY ((SCIENCE ELECTIVE--2)	3	0	2	0	4	5	NIL
17	BSC	19EE2101	ELECTRICAL CIRCUITS	3	0	2	0	4	5	NIL
18	ESC	20UC1102	DESIGN THINKING AND INNOVATION-1	1	0	0	4	2	5	NIL
19	ESC	20UC1203	DESIGN THINKING AND INNOVATION-2	1	0	0	4	2	5	NIL
20	ESC	19SC1101	PROBLEM SOLVING AND COMPUTER PROGRAMMING	3	0	2	0	4	5	NIL
21	ESC	19SC1202	DATA STRUCTURES	3	0	2	3	4.75	8	NIL
22	ESC	19ME1103	DESIGN TOOLS WORKSHOP - I	0	0	4	0	2	4	NIL
23	ESC	19SC1209	DESIGN TOOLS WORKSHOP - II	0	0	4	0	2	4	NIL
24	ESC	19SC1106	TECHNICAL SKILLS-1(CODING)	0	0	0	6	1.5	6	NIL
25	ESC	19SC1203	OBJECT ORIENTED PROGRAMMING	3	0	2	3	4.75	8	NIL
26	ESC	19EC1101	DIGITAL LOGIC & PROCESSORS	3	0	2	0	4	5	NIL
27	ESC	19EC1213	BASIC ELECTRONIC CIRCUITS	3	0	0	0	3	3	NIL
28	PCC	19EC1202	COMPUTER ORGANIZATION & ARCHITECTURE	2	0	0	0	2	2	19EC1101
29	PCC	19EC2103	ANALOG ELECTRONIC CIRCUIT DESIGN	3	0	2	2	4.5	7	NIL
30	PCC	19EC2106	EMBEDDED CONTROLLERS	2	0	3	2	4	7	NIL
31	PCC	19EE2102	ELECTRICAL POWER ENGINEERING	3	1	0	0	4	4	NIL
32	PCC	19EE2103	ELECTRICAL MACHINES	3	0	2	0	4	5	NIL
33	PCC	19EE2201	INDUSTRIAL APPLICATION OF ELECTRICAL MACHINES	3	0	2	0	4	5	19EE2103
34	PCC	19EE2202	POWER ELECTRONICS	3	0	2	0	4	5	19EE2101
35	PCC	19EE2203	COMPUTER APPLICATION IN POWER SYSTEMS	3	0	2	0	4	5	NIL
36	PCC	19EE2204	CONTROL SYSTEMS	3	0	2	0	4	5	NIL
37	PCC	19EE3101	AI TECHNIQUES IN ELECTRICAL ENGINEERING	3	0	2	0	4	5	19EE2203
38	PCC	19EM3201	SIGNAL PROCESSING	3	0	2	0	4	5	NIL
39	SDC	19TS6001	SKILLING FOR ENGINEERS-1	0	0	0	4	1	4	NIL
40	SDC	19TS6002	SKILLING FOR ENGINEERS-2	0	0	0	4	1	4	NIL
41	SDC	19TS6003	SKILLING FOR ENGINEERS-3	0	0	0	4	1	4	NIL
42	SDC	19TS6004	SKILLING FOR ENGINEERS-4	0	0	0	4	1	4	NIL
43	SDC	19TS6005	TECHNICAL PROFICIENCY & TRAINING- 1	0	0	0	4	1	4	NIL
44	SDC	19TS6006	TECHNICAL PROFICIENCY & TRAINING-2	0	0	0	4	1	4	NIL
45	PRI	19IE2246	INDUSTRIAL TRAINING	0	0	4	0	2	4	NIL
46	PRI	19IE3247	TERM PAPER	0	0	4	0	2	4	NIL

47	PRI	19IE4048	PROJECT (PART I)	0	0	0	24	6	24	NIL
48	PRI	19IE4049	PROJECT (PART II)	0	0	0	24	6	24	NIL
49	PRI	19IE4050	PRACTICE SCHOOL	0	0	0	24	6	24	NIL
50	PRI	19IE4051	INTERNSHIP	0	0	0	24	6	24	NIL
51	FCC	FC-1	FLEXI-CORE-1	3	0	2	0	4	5	
52	FCC	FC-2	FLEXI-CORE-2	3	1	0	0	4	4	
53	FCC	FC-3	FLEXI-CORE-3	3	1	0	0	4	4	
54	OE	OE-1	OPEN ELECTIVE-1	3	0	0	0	3	3	NIL
55	OE	OE-2	OPEN ELECTIVE-2	3	0	0	0	3	3	NIL
56	OE	OE-4	MANAGEMENT ELECTIVE	3	0	0	0	3	3	NIL
57	OE	OE-5	FOREIGN LANGAUGE ELECTIVE	2	0	0	0	2	2	NIL
58	PE		PROFESSIONAL ELECTIVE-1	3	0	0	0	3	3	
59	PE		PROFESSIONAL ELECTIVE-2	3	0	0	0	3	3	
60	PE		PROFESSIONAL ELECTIVE-3	3	0	0	0	3	3	
61	PE		PROFESSIONAL ELECTIVE-4	3	0	0	0	3	3	
62	PE		PROFESSIONAL ELECTIVE-5	3	0	0	0	3	3	
<b>Grand Total Credits</b>								<b>166.5</b>		

### PROFESSIONAL ELECTIVES

#### GREEN ENERGY TECHNOLOGIES

SNO	COURSE CODE	COURSE NAME	L	T	P	S	Cr	Pre Req
PE-1	19EE3121	SOLAR AND MICRO ENERGY TECHNOLOGIES	3	0	0	0	3	NIL
PE-2	19EE3122	WIND AND ENERGY STORAGE TECHNOLOGIES	3	0	0	0	3	NIL
PE-3	19EE3123	ENERGY MANAGEMENT AND GREEN BUILDINGS	3	0	0	0	3	NIL
PE-4	19EE3221	AI AND IOT FOR GREEN ENERGY INTEGRATION	3	0	0	0	3	NIL
PE-5	19EE3222	GRID INTEGRATION OF RENEWABLE ENERGY SOURCES	3	0	0	0	3	NIL
<b>SMART GRID TECHNOLOGIES</b>								
PE-1	19EE3131	DISTRIBUTION SYSTEM PRACTICES	3	0	0	0	3	19EE2102
PE-2	19EE3132	DISTRIBUTED ENERGY RESOURCES AND SMART GRIDS	3	0	0	0	3	NIL
PE-3	19EE3133	ENERGY MANAGEMENT SYSTEMS AND SCADA	3	0	0	0	3	NIL
PE-4	19EE3231	SMART GRID COMMUNICATION AND CYBERSECURITY	3	0	0	0	3	NIL
PE-5	19EE3232	INTERNET OF THINGS AND SMART GRID ANALYTICS	3	0	0	0	3	NIL
<b>ELECTRIC VEHICLE TECHNOLOGIES</b>								
PE-1	19EE3141	POWER TRAIN DESIGN FOR ELECTRIC VEHICLE	3	0	0	0	3	NIL
PE-2	19EE3142	BATTERY STATE ESTIMATION ALGORITHMS FOR ELECTRIC VEHICLE	3	0	0	0	3	NIL
PE-3	19EE3143	CHARGING STATIONS FOR ELECTRIC VEHICLES	3	0	0	0	3	19EE2202
PE-4	19EE3241	AI AND IOT FOR ELECTRIC VEHICLE	3	0	0	0	3	NIL
PE-5	19EE3242	COMMUNICATION PROTOCOLS & TESTING OF ELECTRIC VEHICLE	3	0	0	0	3	NIL

#### FLEXI CORE

FC-1	19EC3109	DATA NETWORKS AND PROTOCOLS	3	0	2	0	4	NIL
FC-1	19EE3106	SENSORS & INTERNET OF THINGS	3	0	2	0	4	NIL
FC-2	19EE3102	ELECTRIC DRIVES	3	0	2	0	4	19EE2202
FC-2	19EE3103	RESTRUCURED POWER SYSTEMS	3	1	0	0	4	NIL
FC-3	19EE3104	UTILISATION OF ELECTRICAL ENERGY	3	1	0	0	4	NIL
FC-3	19EE3105	POWER QUALITY	3	1	0	0	4	NIL

#### OPEN ELECTIVE COURSE'S

1	OE	19OL40B3	INTRODUCTION TO SELF DRIVING CARS	2	0	0	0		NIL
2	OE	19EE40B4	ENERGY ESTIMATION & AUDIT	2	0	0	0		NIL

#### FOREIGN LANGUAGE COURSES

1	19FL3054	FRENCH LANGAUGE	2	0	0	0		NIL
2	19FL3055	GERMAN LANGUAGE	2	0	0	0		NIL
3	19FL40F1	LEARN SPANISH: BASIC SPANISH VOCABULARY	2	0	0	0		NIL
4	19FL40F2	RUSSIAN FOR BEGINNERS	2	0	0	0		NIL
5	19FL40F3	LEARN CHINESE: HSK TEST PREPARATION	2	0	0	0		NIL