

KLEF
DEPARTMENT OF EEE
Y22 B.TECH STRUCTURE

SL	TYPE	CODE	COURSE NAME			L	T	P	S	CR	CH	PRE REQUISITES
1	AUC	22UC0016	AUDIT COURSE - 1 (GENDER &	GSE	R	2	0	0	0	0	2	NIL
2	AUC	22UC0019	AUDIT COURSE - 2 (ESSENCE OF	EIKT	R	2	0	0	0	0	2	NIL
3	AUC	22UC0008	AUDIT COURSE - 3 (INDIAN	IC	R	2	0	0	0	0	2	NIL
4	AUC	22UC0009	AUDIT COURSE - 4 (ECOLOGY &	E&E	R	2	0	0	0	0	2	NIL
5	AUC	22UC0020	INDIAN KNOWLEDGE SYSTEMS-	IKS	R	2	0	0	0	0	2	NIL
6	HAS	22UC1101	INTEGRATED PROFESSIONAL	IPE	R	0	0	4	0	2	4	NIL
7	HAS	22UC1202	English Proficiency	EP	R	0	0	4	0	2	4	NIL
8	HAS	22UC2103	ESSENTIAL SKILLS FOR	ESE	R	0	0	4	0	2	4	NIL
9	HAS	22UC2304	CORPORATE READINESS SKILLS	CRS	R	0	0	4	0	2	4	NIL
10	HAS	22UC0010	UNIVERSAL HUMAN VALUES &	UHV&PE	R/M	2	0	0	0	2	2	NIL
11	HAS	22UC1203	DESIGN THINKING FOR	DTI	R	0	0	4	0	2	4	NIL
17	HAS	22MBXXXX	MANAGEMENT ELECTIVE		R/M	2	0	0	0	2	2	NIL
18	HAS	22FLXXXX	FOREIGN LANGUAGE ELECTIVE		R/M	2	0	0	0	2	2	NIL
12	HAS	22UC0012	INNOVATION MANAGEMENT	INM	R	0	0	4	0	2	4	DTI
TOTAL HAS CREDITS										18.00		
13	SIL	22UC0021	SOCIAL IMMERSIVE LEARNING-1	SIL-1		0	0	0	4	1	4	
14	SIL	22UC0022	SOCIAL IMMERSIVE LEARNING-2	SIL-2		0	0	0	4	1	4	
15	SIL	22UC0023	SOCIAL IMMERSIVE LEARNING-3	SIL-3		0	0	0	4	1	4	
16	SIL	22UC0024	SOCIAL IMMERSIVE LEARNING-4	SIL-4		0	0	0	4	1	4	
TOTALSIL CREDITS										4.00		
11	BSC	22MT1101	MATHEMATICS FOR COMPUTING		R	2	2	0	2	4.5	6	Nil
12	BSC	22MT2102	MATHEMATICS FOR ENGINEERS -		R	2	1	0	0	3	3	Nil
14	BSC	22MT2205	MATHEMATICS ELECTIVE - 3 PROBABIIITY, STATISTICS AND		R	2	2	0	0	4	4	NIL
15	BSC	22MT2008	MATHEMATICS ELECTIVE - 4 - COMPLEX ANALYSIS &		R	2	2	0	0	4	4	NIL
16	BSC	22EE2103	ELECTROMAGNETIC FIELDS AND ENGINEERING MATERIALS		R	3	0	2	0	4	4	Nil
17	BSC	22CY1001	ENGINEERING CHEMISTRY.		R	3	0	2	0	4	5	NIL
TOTAL BSC CREDITS										23.5		
	ESC	22SC1101	COMPUTATIONAL THINKING FOR	CTSD	R	3	0	2	6	5.5	11	NIL
19	ESC	22ME1103	DESIGN TOOLS WORKSHOP-1	DTW	R	0	0	4	0	2	4	Nil
20	ESC	22EC1101	DIGITAL LOGIC & PROCESSORS	DLP	R	3	0	2	0	4	5	Nil
21	ESC	22SC1209	IOT Workshop		R	0	0	4	0	2	4	Nil
22	ESC	22EC1202	Computer Organization &		R	2	0	0	0	2	2	NIL
23	ESC	22SC1202	Data Structures		R	3	0	2	4	5	9	20SC1101
24	ESC	22EE1201	Basic Electrical and Electronics	BEEE	R	3	1	2	0	5	6	NIL
25	ESC	22CS1201	Object Oriented Programming	OOP	R	2	0	2	0	3	4	NIL
26	ESC	22UC3108	PROBLEM SOLVING &	PSRS-1	R	0	0	0	4	1	4	RELEVANT COURSE
27	ESC	22UC3209	PROBLEM SOLVING &	PSRS-2	R	0	0	0	4	1	4	NIL
TOTAL ESC CREDITS										30.50		
28	PCC	22AD2001	DATA DRIVEN AI SYSTEMS	DDAIS	R/A/P	2	0	2	0	3	4	CTSD

30	PCC	22EE2101	Electrical Circuits	ELC	R	2	1	2	0	4	5	BEEC
31	PCC	22EE2102	Electrical Machines -	EM	R	3	0	2	0	4	5	BEEC
32	PCC	22EC2104	ANALOG ELECTRONIC CIRCUIT	AECD	R	3	0	2	2	4.5	7	
29	PCC	22EE2204	Electrical Power Generation,	EPGTD	R/A/P	2	1	0	0	3	3	BEEC
34	PCC	22EE2205	Power Electronics	PE	R/A/P	2	0	2	0	3	4	ELC
33	PCC	22EE3106	Power System Analysis &	PSAS	R/A/P	2	0	2	0	3	4	EPGTD
35	PCC	22EE3107	Control Systems	CS	R/A/P	2	0	2	0	3	4	BEEC
36	PCC	22EE3208	Power System Protection and	PSPC	R/A/P	2	0	2	0	3	4	EC
37	PCC	22EE3209	AI Techniques for Electrical	AITEE	R/A/P	2	0	2	0	3	4	PSAS
38	PCC	22EC2106	PROCESSORS AND CONTROLLERS	PRC	R	3	0	2	2	4.5	7	NIL
TOTAL PCC CREDITS										38.00		
39	FCC		Flexi core-1		R	2	0	2	0	3	4	RELEVANT COURSE
40	FCC		Flexi core-2		R	2	0	2	0	3	4	RELEVANT COURSE
41	FCC		Flexi core-3		R	2	1	0	0	3	3	RELEVANT COURSE
TOTAL FCC CREDITS										9.00		
54	SDC	22SDEE01	SKILL DEVELOPMENT PROJECT - 1 (APPLICATION DEVELOPMENT)		R/A/P	0	0	2	4	2	6	NIL
55	SDC	22SDEE02	SKILL DEVELOPMENT PROJECT - 2 (EMBEDDED SYSTEM DESIGN)		R/A/P	0	0	2	4	2	6	NIL
56	SDC	22SDEE03	SKILL DEVELOPMENT PROJECT - 3		R/A/P	0	0	2	4	2	6	NIL
TOTAL SDP CREDITS										6.00		
41	PEC		PROFESSIONAL ELECTIVE - 1	PE-1	R/A/P	2	0	2	4	4	8	RELEVANT COURSE
42	PEC		PROFESSIONAL ELECTIVE - 2	PE-2	R	2	0	2	0	3	4	RELEVANT COURSE
43	PEC		PROFESSIONAL ELECTIVE - 3	PE-3	R/A/P	2	0	2	4	4	8	RELEVANT COURSE
44	PEC		PROFESSIONAL ELECTIVE - 4	PE-4	M/MA	3	0	0	0	3	3	RELEVANT COURSE
TOTAL PEC CREDITS										14		
46	OEC	OE	OPEN ELECTIVE - 1		R/M	3	0	0	0	3	3	NIL
47	OEC	OE	OPEN ELECTIVE - 2		R/M	3	0	0	0	3	3	NIL
48	OEC	OE	OPEN ELECTIVE - 3		R/M	3	0	0	0	3	3	NIL
TOTAL OEC CREDITS										9		
49	PRI	PRI	SOCIAL INTERNSHIP		R	0	0	0	4	0	4	DTI
50	PRI	PRI	TECHNICAL INTERNSHIP		R	0	0	0	8	0	8	NIL
51	PRI	PRI	TERM PAPER		R	0	0	4	0	2	4	RELEVANT COURSE
52	PRI	PRI	ENGINEERING CAPSTONE		R/A	0	0	6	12	6	18	RELEVANT COURSE
53	PRI	PRI	ENGINEERING CAPSTONE		R/A	0	0	6	12	6	18	RELEVANT COURSE
TOTAL PRI CREDITS										14		
64	VAC		SPORTS / YOGA CERTIFICATION		R	2	0	0	0	0	2	NIL
65	VAC		VALUE ADDED COURSE - 1 - PCAP		R	0	0	0	8	0	8	NIL
66	VAC		VALUE ADDED COURSE - 2		R	0	0	0	8	0	8	RELEVANT COURSE
67	VAC		VALUE ADDED COURSE - 3 AUTOSAR / ANSYS / COMSOL		R	0	0	0	8	0	8	RELEVANT COURSE
58	SDC	00DC00	TOOL BASED LEARNING - 1		R	0	0	0	4	0	4	NIL
59	SDC	00DC0025	TOOL BASED LEARNING - 2		R	0	0	0	4	0	4	NIL
TOTAL CREDITS										166.00		

FLEXI CORE

S.No	CAT	Course Title	SHORT	L	T	P	S	Cr	CH	PRE -REQUISITE		
	FC-1	22EE2222	Industrial Applications of Electrical Machines	IAEM	R	2	0	2	0	3	4	BEEC
	FC-1	22EE2223	Utilization of Electrical Energy	UEE	R	3	0	0	0	3	3	BEEC
	FC-2	22EE2224	Measurements and	MI	R	2	0	2	0	3	4	BEEC
	FC-2	22EE2225	Power Quality	PQ	R	3	0	0	0	3	3	BEEC
	FC-3	22EE2229	Electrical Drives	ED	R	3	0	0	0	3	3	BEEC
	FC-3	22EE2221	Restructured Power systems	RPS	R	3	0	0	0	3	3	BEEC
OTHER BRANCHES- FLEXI CORE related to EEE specializations												
	FC-1	22EE2226	Electrical Technology	ET	R	2	0	2	0	3	4	BEEC
	FC-2	22EE2227	Electrical Power Engineering	EPT	R	3	0	0	0	3	3	BEEC
	FC-2	22EE2228	Power Electronics & Drives	PED	R	2	0	2	0	3	4	ET

PROFESSIONAL ELECTIVES

S.No	CAT	CODES	Course Title	SHORT	L	T	P	S	Cr	CH	PRE-REQUISITE	
1	PEC-1	22SGT3101R	Distributed Energy Resources and	DERSG	R	2	0	2	4	4	8	EPGTD OR EPE
9	PEC-1	22GET3101R	Solar PV and Micro Energy	SPMET	R	2	0	2	4	4	8	EPGTD OR EPE
17	PEC-1	22EME3101R	Power Train Design For Electric	PTDEV	R	2	0	2	4	4	8	ELM OR ET
25	PEC-1	22ILA3101R	Introduction To Industrial Internet	IIOT	R	2	0	2	4	4	8	ELM OR ET OR FITS
2	PEC-2	22SGT3202	Distribution System Practices	DSP	R	2	0	2	0	3	4	EPGTD OR EPE
3	PEC-2	22SGT3203	Microgrid Dynamics and Control	MDC	R	2	0	2	0	3	4	EPGTD OR EPE
10	PEC-2	22GET3202	Wind and Energy Storage	WEST	R	2	0	2	0	3	4	EPGTD OR EPE
11	PEC-2	22GET3203	Energy Economics and Policy	EEP	R	2	0	2	0	3	4	EPGTD OR EPE
18	PEC-2	22EME3202	Communication Protocols &	CPTEV	R	2	0	2	0	3	4	ELM OR ET
19	PEC-2	22EMEE3203	Automotive Electronics	AVAE	R	2	0	2	0	3	4	ELM OR ET
26	PEC-2	22ILA3202	Industrial Automation and Robotics	IAR	R	2	0	2	0	3	4	ELM OR ET
27	PEC-2	22ILA3203	Edge Computing for Industry 4.0	ECI	R	2	0	2	0	3	4	ELM OR ET
4	PEC-3	22SGT3304R	Energy Management Systems and	EMS&SCA	R	2	0	2	4	4	8	EPGTD OR EPE
12	PEC-3	22GET3304R	Grid Integration of Renewable	GIRES	R	2	0	2	4	4	8	EPGTD OR EPE
20	PEC-3	22EME3304R	Charging Stations for Electric	CSEV	R	2	0	2	4	4	8	ELM OR ET
28	PEC-3	22EME3305R	Industrial Drives and Control	ID&C	R	2	0	2	4	4	8	ELM OR ET
5	PEC-4	22SGT3405M	Smart Grid Communication and	SGCCS	M	3	0	0	0	3	3	EPGTD OR EPE
6	PEC-4	22SGT3406M	Smart Meters and Smart Cities	SMSC	M	3	0	0	0	3	3	EPGTD OR EPE
13	PEC-4	22GET3405M	Energy Management and Green	EMGB	M	3	0	0	0	3	3	EPGTD OR EPE

14	PEC-4	22GET3406M	Hydrogen Fuel Cell Technology	HFCT	M	3	0	0	0	3	3	EPGTD OR EPE
22	PEC-4	22EME3405M	And Electronic Systems	TMEES	M	3	0	0	0	3	3	TD
21	PEC-4	22EME3406M	Battery State Estimation	BSAEV	M	3	0	0	0	3	3	ELM OR ET
29	PEC-4	22ILA3405M	Industrial Communication	ICPCS	M	3	0	0	0	3	3	ELM OR ET
30	PEC-4	22ILA3406M	Digital Manufacturing and Design	DMD	M	3	0	0	0	3	3	ELM OR ET

