Four Year Degree Course in Bachelor of Engineering Branch: **ELECTRICAL ENGINEERING**
Semester Pattern (Choice Based Credit Grade System)

SEMESTER : THIRD																
Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME								
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL			
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks
													Int.	Ext.		
THEORY																
01	3EE01	Engineering Mathematics-III	3	1	--	4	4	3	80	20	100	40	--	--	--	--
02	3EE02	Electrical Circuit Analysis	2	1	--	3	3	3	80	20	100	40	--	--	--	--
03	3EE03	Electrical Machines - I	3	--	--	3	3	3	80	20	100	40	--	--	--	--
04	3EE04	Energy Resources & Generation	3	--	--	3	3	3	80	20	100	40	--	--	--	--
05	3EE05	Electronic Devices & Circuits	3	--	--	3	3	3	80	20	100	40	--	--	--	--
06	4ES06	**Environmental Studies	2	--	--	2	--	--	--	--	--	--	-	-	-	-
PRACTICALS / DRAWING / DESIGN																
07	3EE06	Electrical Circuit Analysis – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
08	3EE07	Electrical Machines – I – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
09	3EE08	Electronic Devices & Circuits – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
10	3EE09	Electrical Technology – lab.	--	--	2	2	1	--	--	--	--	--	50	--	50	25
		Total	**16**	**2**	**8**	**26**	**20**	--	--	--	**500**	--	--	--	**200**	--
												TOTAL			**700**	

Note: **The Examination of the Subject Environmental Science shall be conducted in IV Semester. [As per Ordinance of 42/ 2005]

SEMESTER : FOURTH																	
Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks
													Int.	Ext.		
THEORY																	
01	4EE01	Electromagnetic Fields	2	1	--	3	3	3	80	20	100	40	--	--	--	--
02	4EE02	Electrical Measurements & Instrumentation	3	--	--	3	3	3	80	20	100	40	--	--	--	--
03	4EE03	Power Systems – I	3	--	--	3	3	3	80	20	100	40	--	--	--	--
04	4EE04	Analog & Digital Circuits	3	1	--	4	4	3	80	20	100	40	--	--	--	--
05	4EE05	Signals & Systems	3	--	--	3	3	3	80	20	100	40	--	--	--	--
06	4ES06	**Environmental Studies	2	--	--	2	2	3	80	20	100	40	-	-	-	-
PRACTICALS / DRAWING / DESIGN																	
07	4EE06	Electrical Measurements & Instrumentation – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
08	4EE07	Power Systems – I – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
09	4EE08	Analog & Digital Circuits - lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
10	4EE09	Electrical Technology – lab.	--	--	2	2	1	--	--	--	--	--	50	--	50	25
		Total	**16**	**2**	**8**	**26**	**22**	--	--	--	**600**	--	--	--	**200**	--
														TOTAL	**800**		

Note: **The Examination of the Subject Environmental Science shall be conducted in IV Semester. [As per Ordinance of 42/ 2005]

SEMESTER : FIFTH																	
Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks
													Int.	Ext.		
THEORY																	
01	5EE01	Control Systems	4	--	--	4	4	3	80	20	100	40	--	--	--	--
02	5EE02	Microprocessor & Microcontroller	3	--	--	3	3	3	80	20	100	40	--	--	--	--
03	5EE03	Electrical Machines - II	3	--	--	3	3	3	80	20	100	40	--	--	--	--
04	5EE04	Professional Elective –I (PE-I)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
05	5EE05	Open Elective – I (OE-I)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
PRACTICALS / DRAWING / DESIGN																	
06	5EE06	Control Systems - lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
07	5EE07	Microprocessor & Microcontroller Lab	--	--	2	2	1	--	--	--	--	--	25	25	50	25
08	5EE08	Electrical Machines – II – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
09	5EE09	Electrical Technology – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
		Total	**16**	**0**	**8**	**24**	**20**	--	--	--	**500**	--	--	--	**200**	--
														TOTAL	**700**		

Prof. Elective – I : (i) Power System Operation & Control (ii) Electrical Engineering Materials (iii) Electronic Communication Theory

Open Elective – I : (i) Electrical Drives (ii) Power Plant Engineering (For other Disciplines)

An Orientation Program of 15 Hours duration/ MOOCs on **Indian Constitution** to be offered during **V semester.**

Open Elective-I to be opted from the University's faculty of Engineering & Technology offered inter-disciplinary courses or MOOCs courses pertaining to the Engineering Profession.

SEMESTER : SIXTH																
Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME								
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL			
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks
													Int.	Ext.		
THEORY																
01	6EE01	Power Electronics	4	--	--	4	4	3	80	20	100	40	--	--	--	--
02	6EE02	Power Systems – II	3	--	--	3	3	3	80	20	100	40	--	--	--	--
03	6EE03	Computer Aided Electrical Machine Design	3	--	--	3	3	3	80	20	100	40	--	--	--	--
04	6EE04	Prof. Elective -II (PE-II)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
05	6EE05	Open Elective - II (OE-II)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
PRACTICALS / DRAWING / DESIGN																
06	6EE06	Power Electronics – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
07	6EE07	Power Systems – II – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
08	6EE08	Computer Aided Electrical Machine Design – lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
09	6EE09	Computer Technology – lab.	--	--	2	2	1	--	--	--	--	--	50	--	50	25
		Total	**16**	**0**	**8**	**24**	**20**	--	--	--	**500**	--	--	--	**200**	--
														TOTAL	**700**	

Prof. Elective – I : (i) Advanced Control Systems (ii) Digital Communication Systems (iii) Industrial Electrical Systems
Open Elective - II (i) ENERGY AUDIT & MANAGEMENT (ii) ELECTRICAL ESTIMATION & COSTING (For other Disciplines)

An Orientation Program of 15 Hours duration/ MOOCs on **Indian Traditional Knowledge** to be offered during **V semester.**
An Orientation Program of 15 Hours duration/MOOCS on **Enterprenureship Development** to be offered during **VI semester.**

Open Elective-I to be opted from the University's faculty of Engineering & Technology offered inter-disciplinary courses or MOOCs courses pertaining to the Engineering Profession.

SEMESTER : SEVENTH

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME									
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL				
			Lecture	Tutorial	P/D			Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks Int.	Max. Marks Ext.	Total	Min. Passing Marks
THEORY																	
01	7EE01	Electrical Energy Distribution & Utilization	3	--	--	3	3	3	80	20	100	40	--	--	--	--
02	7EE02	Digital Signal Processing	3	--	--	3	3	3	80	20	100	40	--	--	--	--
03	7EE03	Entrepreneurship & Project Management	3	--	--	3	3	3	80	20	100	40	--	--	--	--
04	7EE04	Professional Elect. - III (PE-III)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
05	7EE05	Professional Elect- IV (PE-IV)	3	--	--	3	3	3	80	20	100	40	--	--	--	--
PRACTICALS / DRAWING / DESIGN																	
06	7EE06	Electrical Energy Distribution & Utilization- lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
07	7EE07	Digital Signal Processing –lab.	--	--	2	2	1	--	--	--	--	--	25	25	50	25
08	7EE08	Entrepreneurship & Project Management- lab.	--	--	2	2	1	--	--	--	--	--	50	--	50	25
09	7EE09	Project & Seminar	--	--	8	8	4	--	--	--	--	--	50	--	50	25
		Total	**15**	**0**	**14**	**29**	**22**	--	--	--	**500**	--	--	--	**200**	--
														TOTAL		**700**	

Prof. Elect. III - 7EE04: PE(III) : (i) Wind & Solar Energy Systems (ii) VLSI Design (iii) Computer Architecture & Organization

Prof. Elect. IV - 7EE05: PE(IV) : (i) Artificial Intelligence (ii) Electrical Drives & Control (iii) Digital Control Systems

SEMESTER : EIGHT

Sr. No.	Subject Code	Subject	TEACHING SCHEME					EXAMINATION SCHEME								
			HOURS / WEEK			Total HOURS/WEEK	CREDITS	THEORY					PRACTICAL			
								Duration Of Paper (Hr.)	Max. Marks Theory Paper	Internal Marks	Total	Min. Passing Marks	Max. Marks		Total	Min. Passing Marks
			Lecture	Tutorial	P/D								Int.	Ext.		
THEORY																
01	8EE01	Embedded Systems	3	--		3	3	3	80	20	100	40	--	--	--	--
02	8EE02	Power Systems Protection	3	--		3	3	3	80	20	100	40	--	--	--	--
03	8EE03	Professional Elect.-V (PE-V)	3	--		3	3	3	80	20	100	40	--	--	--	--
04	8EE04	Professional Elect-VI (PE-VI)	3	--		3	3	3	80	20	100	40	--	--	--	--
PRACTICALS / DRAWING / DESIGN																
05	8EE05	Embedded Systems –lab.	--	--	2	2	1	--	--	-- --	--	--	25	25	50	25
06	8EE06	Power Systems Protection- lab.	--	--	2	2	1	--	--	-- --	--	--	25	25	50	25
07	8EE07	Project & Seminar	--	--	12	12	6	--	--	--	--	--	75	75	150	75
		Total	**12**	**--**	**16**	**28**	**20**	**--**	**--**	**--**	**400**	**--**	**--**	**--**	**250**	**--**
														TOTAL		**650**

Prof. Elect. V - 8EE03: PE(V) : (i) Biomedical Electronics (ii) Process Control Systems (iii) Digital Image Processing

Prof. Elect. VI - 8EE04 : PE(VI) : (i) Robotics (ii) Electrical Energy Conservation & Auditing (iii) Electrical & Hybrid Vehicles