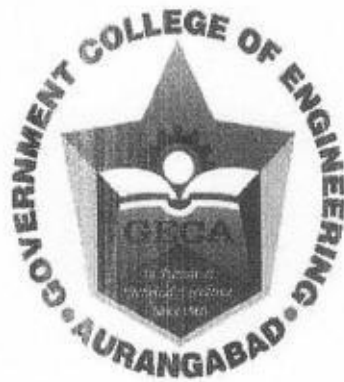


**GOVT. COLLEGE OF ENGINEERING,  
AURANGABAD**



**CURRICULUM**

**M. TECH. (ELECTRICAL POWER SYSTEMS)**

**Part Time**

**Department of Electrical Engineering**

**2018-19**

1

**GOVERNMENT COLLEGE OF ENGINEERING, AURANGABAD**

(An Autonomous Institute of Government of Maharashtra)

**Department of Electrical Engineering**

Teaching and Evaluation Scheme

**M. Tech. (Electrical Power Systems) Part-Time**  
CBCS Pattern (Implemented From 2018-19 onwards)

**SEMESTER-I**

THEORY COURSES												
Sr. No	Course Code	Subject	Scheme of Teaching (Hrs/Week)			Total Credits	Scheme of Evaluation (Marks)					
			L	T	P		Theory			Term Work	Practical /Viva-voce	Total
							Class Test	TA	ESE			
1	EE51001	Computer Aided Power System Analysis	03	0	0	03	20	20	60	-	-	100
2	EE51002	EHV AC Power Systems	03	0	0	03	20	20	60	-	-	100
3		Research Methodology	02	0	0	02	20	20	60	-	-	100
<b>LABORATORY COURSES/Seminars etc.</b>												
	EE51003	Simulation Laboratory-I	-	-	04	02	-	-	-	25	25	50
2		Audit Course	02									
<b>TOTAL SEM I</b>			<b>10</b>	<b>00</b>	<b>04</b>	<b>10</b>	<b>60</b>	<b>60</b>	<b>180</b>	<b>25</b>	<b>25</b>	<b>350</b>

**SEMESTER-II**

THEORY COURSES												
Sr. No	Course Code	Subject	Scheme of Teaching (Hrs/Week)			Total Credits	Scheme of Evaluation (Marks)					
			L	T	P		Theory			Term Work	Practical /Viva-voce	Total
							Class Test	TA	ESE			
1	*	Program Elective -I	03	0	0	3	20	20	60	-	-	100
2	*	Program Elective-II	03	0	0	3	20	20	60	-	-	100
3	EE51005	Power system Dynamics & Stability	03	0		03	20	20	60	-	-	100
<b>LABORATORY COURSES/Seminars etc.</b>												
1	EE51004	Lab- High Voltage Engineering	-	-	04	02	-	-	-	25	25	50
<b>TOTAL Semester II</b>			<b>09</b>	<b>0</b>	<b>04</b>	<b>11</b>	<b>60</b>	<b>60</b>	<b>180</b>	<b>25</b>	<b>25</b>	<b>350</b>

*DR*

**Approved in XIX<sup>th</sup> Academic Council, dated 27/07/2019**

Director  
Government College of Engineering, Aurangabad

**SEMESTER-III**

THEORY COURSES												
Sr. No	Course Code	Subject	Scheme of Teaching (Hrs/Week)			Total Credits	Scheme of Evaluation (Marks)					
			L	T	P		Theory			Term Work	Practical/Viva-voce	Total
							Class Test	TA	ESE			
1	EE51006	H.V.D.C and FACTS	03	0		03	20	20	60	-	-	100
2	*	Program Elective-III	03	0		03	20	20	60	-	-	100
3	*	Program Elective-IV	03	0		03	20	20	60	-	-	100
<b>LABORATORY COURSES/Seminars etc.</b>												
1	EE51007	Simulation Laboratory-II	-	-	04	02	-	-	-	25	25	50
<b>TOTAL Semester III</b>			<b>09</b>	<b>0</b>	<b>04</b>	<b>11</b>	<b>60</b>	<b>60</b>	<b>180</b>	<b>25</b>	<b>25</b>	<b>350</b>

**SEMESTER-IV**

THEORY COURSES												
Sr. No	Course Code	Subject	Scheme of Teaching (Hrs/Week)			Total Credits	Scheme of Evaluation (Marks)					
			L	T	P		Theory			Term Work	Practical/Viva-voce	Total
							Class Test	TA	ESE			
1	*	Program Elective-V	03	0		03	20	20	60	-	-	100
<b>LABORATORY COURSES/Seminars etc.</b>												
1	EE51008	Lab- Renewable Energy Technology	-	-	04	02	-	-	-	25	25	50
2	EE51009	Mini Project with Seminar	-	-	04	02	-	-	-	50	50	100
3	#	Internship/industrial training	-	-	-	-	-	-	-	-	-	-
<b>TOTAL Semester IV</b>			<b>03</b>	<b>0</b>	<b>08</b>	<b>07</b>	<b>20</b>	<b>20</b>	<b>60</b>	<b>75</b>	<b>75</b>	<b>250</b>

**SEMESTER V**

THEORY COURSES												
Sr. No.	Course Code	Subject	Scheme of Teaching (Hrs/Week)			Total Credits	Scheme of Evaluation (Marks)					
			L	T	P		Theory			Term Work	Practical/Viva-voce	Total
							Test	TA	ESE			
1	**	Open Elective	03	0	0	03	20	20	60	-	-	100
<b>LABORATORY COURSES/Seminars etc.</b>												
1	EE61002	Dissertation-I	-	-	20	10	-	-	-	50	50	100
<b>TOTAL Semester V</b>			<b>03</b>	<b>0</b>	<b>20</b>	<b>10</b>	<b>20</b>	<b>60</b>	<b>50</b>	<b>50</b>	<b>200</b>	

Approved in \_\_\_\_\_  
 Council, dated \_\_\_\_\_/2018





**SEMESTER-VI**

THEORY COURSES												
Sr. No.	Course Code	Subject	Scheme of Teaching (Hrs/Week)			Total Credits	Scheme of Evaluation (Marks)					
			L	T	P		Theory			Term Work	Practical/Viva-voce	Total
							Test	TA	ESE			
I	EE61003	Dissertation-II	-	-	32	16	-	-	-	100	150	250
<b>TOTAL SEM VI</b>			<b>0</b>	<b>0</b>	<b>32</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>150</b>	<b>250</b>
<b>GRAND TOTAL</b>			<b>34</b>	<b>0</b>	<b>72</b>	<b>68</b>	<b>220</b>	<b>220</b>	<b>660</b>	<b>300</b>	<b>350</b>	<b>1750</b>

**\*\* Students can choose online course such as MOOCs/SWAYAM/NPTEL/QEEE etc in place of open elective with prior intimation and approval of department**

**# Internship/Industrial Training: The student has to undergo internship/industrial training of minimum one month after third and/ or fourth semester with minimum of two weeks in one attempt. Student has to give presentation on the same in subsequent semester. Preferably to Power Stations/ Generating Plants Thermal /Hydropower stations**

*List of Program Electives					
Program Electives I, II, III, IV and V					
Program Electives	A	B	C	D	E
Program Elective I	EE 51010 Power System Planning Operation & Control	EE51011 High Voltage Engineering	EE52010 Fuzzy-Logic & Artificial Neural Networks	EE52001 Advanced Power Electronics	EE51012 Illumination Engineering
Program Elective II	EE51013 Advanced Switchgear Protection	EE51014 Smart Grid Technology	EE52014 Microcontroller & Its Application	EE52002 Electrical Machine Modeling and Analysis	EE51015 Wind Energy Systems
Program Elective III	EE51016 Power System Transients	EE51017 Life Estimation of Power Equipments	EE52018 Digital Signal Processing	EE52006 Advanced Electrical Drives	EE51018 Solar Energy Systems
Program Elective IV	EE51019 Restructured Power Systems	EE51020 Power System Reliability	EE51021 Power Quality	EE52005 Advanced Control Systems	EE52019 Optimization Techniques
Program Elective V	EE51022 Power System Design	EE51023 Engineering Materials	CSXXXXX Internet of Things	EE52023 Electric Vehicles	EE52022 Biomedical Instrumentation

**\*\*Open Elective offered by Electrical Department**

EE61001	Renewable Energy Technology (Offered by Electrical Engineering Department)
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Approved in XIX<sup>th</sup> Academic Council, dated 27/07/2018