



**E.G.S. PILLAY ENGINEERING COLLEGE**  
(An Autonomous Institution, Affiliated to Anna University, Chennai)  
Nagore Post, Nagapattinam – 611 002, Tamilnadu.

**B.E. – Electrical and Electronics Engineering**

Total Credits to be earned for the award of the Degree: **155 (Regular); 119 (Lateral Entry)**

**R2019 BE-EEE Curriculum**

Batch: 2020-2024 (Admitted from 2020 onwards)

SEMESTER I										
Course Code	Course Name	L	T	P	C	Maximum Marks			Category	
						CA	ES	Total		
<b>Theory Course</b>										
1901MA103	Engineering Mathematics-I(Calculus and Differential Equations)	3	2	0	4	40	60	100	BSC	
1901PH102	Wave, Optics and Electromagnetism	3	0	0	3	40	60	100	BSC	
1901GE101	Electric Circuit Analysis	3	0	0	3	40	60	100	ESC	
<b>Theory cum Practical Course</b>										
1901GEX02	Engineering Graphics	2	0	2	3	50	50	100	ESC	
<b>Practical Course</b>										
1901GEX51	CAD Laboratory	0	0	2	1	50	50	100	ESC	
1901GEX53	Basic Electrical and Electronics Engineering Laboratory	0	0	2	1	50	50	100	ESC	
1901PHX51	Engineering Physics Laboratory	0	0	2	1	50	50	100	BSC	
1901GE151	Engineering Intelligence I	0	0	2	1	100	0	100	EEC	
<b>Total</b>		<b>11</b>	<b>2</b>	<b>10</b>	<b>17</b>	<b>420</b>	<b>380</b>	<b>800</b>		

SEMESTER II										
Course Code	Course Name	L	T	P	C	Maximum Marks			Category	
						CA	ES	Total		
<b>Theory Course</b>										
1901MA203	Engineering Mathematics-II(Linear Algebra, Transform Calculus and Numerical Methods)	3	2	0	4	40	60	100	BSC	
1901CH202	Applied Chemistry	3	0	0	3	40	60	100	BSC	
1901GEX03	Programming for Problem Solving	3	0	0	3	40	60	100	ESC	
1901ENX01	English for Engineers	2	0	0	2	40	60	100	HSSC	
1901GE201	Engineering Exploration	2	0	0	2	100	0	100	ESC	
<b>Practical Course</b>										
1901GE253	Basic Workshop Laboratory	0	0	2	1	50	50	100	ESC	
1901GEX52	Computer Programming Laboratory	0	0	2	1	50	50	100	ESC	
1901CHX51	Engineering Chemistry Laboratory	0	0	2	1	50	50	100	BSC	
1901HSX51	Communication Skill Laboratory	0	0	2	1	50	50	100	HSSC	
1901GE252	Engineering Intelligence II	0	0	2	1	100	0	100	EEC	
<b>Total</b>		<b>13</b>	<b>2</b>	<b>10</b>	<b>19</b>	<b>560</b>	<b>440</b>	<b>1000</b>		

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**SEMESTER III**

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
						<b>Theory Course</b>			
1901MA303	Engineering Mathematics-III(Complex Variables, Vector Calculus and Transforms)	3	2	0	4	40	60	100	BSC
1902EE301	Analog Electronics	3	0	0	3	40	60	100	PCC
1902EE302	Digital Electronics	3	0	0	3	40	60	100	PCC
1902EE303	DC Machines and Transformers	3	2	0	4	40	60	100	PCC
1901GE301	Basic Civil and Mechanical Engineering	3	0	0	3	40	60	100	ESC
1901MCX02	Constitution of India	2	0	0	0	100	0	100	MC
<b>Practical Course</b>									
1902EE351	Analog Electronics Laboratory	0	0	2	1	50	50	100	PCC
1902EE352	DC Machines and Transformers Laboratory	0	0	2	1	50	50	100	PCC
1904GE351	Life Skills: Soft Skill	0	0	2	1	100	0	100	EEC
<b>Total</b>		<b>17</b>	<b>4</b>	<b>6</b>	<b>20</b>	<b>500</b>	<b>400</b>	<b>900</b>	
<b>SEMESTER IV</b>									
Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
						<b>Theory Course</b>			
1902EE401	Generation, Transmission and Distribution	3	2	0	4	40	60	100	PCC
1902EE402	Synchronous and Asynchronous Machines	3	2	0	4	40	60	100	PCC
1902EE403	Linear Integrated Circuits	3	0	0	3	40	60	100	PCC
1902EE404	Communication Engineering	3	0	0	3	40	60	100	ESC
1901GEX04	Biology for Engineers	3	0	0	3	40	60	100	BSC
1901MCX01	Environmental Science	2	0	0	0	100	0	100	MC
<b>Practical Course</b>									
1902EE451	Synchronous and Asynchronous Machines Laboratory	0	0	2	1	50	50	100	PCC
1902EE452	Analog and Digital Integrated Circuits Laboratory	0	0	2	1	50	50	100	PCC
1904GE451	Life Skills: Verbal Reasoning	0	0	2	1	100	0	100	EEC
<b>Total</b>		<b>17</b>	<b>4</b>	<b>6</b>	<b>20</b>	<b>500</b>	<b>400</b>	<b>900</b>	

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### SEMESTER V

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
						<b>Theory Course</b>			
1902EE501	Measurements and Instrumentation	3	0	0	3	40	60	100	PCC
1902EE502	Linear Control Systems	3	2	0	4	40	60	100	PCC
1902EE503	Power Electronics	3	0	0	3	40	60	100	PCC
	Elective-I (PEC-I)	3	0	0	3	40	60	100	PEC
1902CS503	Object Oriented Programming	3	0	0	3	40	60	100	ESC
1901MCX03	Essence of Indian Traditional Knowledge	2	0	0	0	100	0	100	MC
<b>Practical Course</b>									
1902EE551	Control and Instrumentation Laboratory	0	0	2	1	50	50	100	PCC
1902CS554	Object Oriented Programming Laboratory	0	0	2	1	50	50	100	ESC
1904EE552	Mini Project - I	0	0	2	1	100	0	100	EEC
1904GE551	Life Skills: Aptitude I	0	0	2	1	100	0	100	EEC
<b>Total</b>		<b>17</b>	<b>2</b>	<b>8</b>	<b>20</b>	<b>600</b>	<b>400</b>	<b>1000</b>	

### SEMESTER VI

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
						<b>Theory Course</b>			
1902EE601	Solid State Drives	3	0	0	3	40	60	100	PCC
1902EE602	Power System Analysis	3	2	0	4	40	60	100	PCC
1902EE603	Microprocessors and Microcontrollers	3	0	0	3	40	60	100	PCC
	Elective-II (PEC-II)	3	0	0	3	40	60	100	PEC
	Elective-III (HSSC Elective-I)	3	0	0	3	40	60	100	HSSC
	Elective-IV (Open Elective-I)	3	0	0	3	40	60	100	OEC
<b>Practical Course</b>									
1902EE651	Power Electronics and Drives Laboratory	0	0	2	1	50	50	100	PCC
1902EE652	Microprocessors and Microcontrollers Laboratory	0	0	2	1	50	50	100	PCC
1904EE653	Mini Project-II	0	0	2	1	100	0	100	EEC
1904GE651	Life Skills: Aptitude II	0	0	2	1	100	0	100	EEC
1904EE654	Industrial Visit Presentation	0	0	0	1	100	0	100	EEC
<b>Total</b>		<b>18</b>	<b>2</b>	<b>8</b>	<b>24</b>	<b>640</b>	<b>460</b>	<b>1100</b>	

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### SEMESTER VII

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
<b>Theory Course</b>									
1901MGX07	Universal Human Values and Ethics	3	0	0	3	40	60	100	HSSC
1902EE701	Power System Operation and Control	3	0	0	3	40	60	100	PCC
	Elective-V (PEC-III)	3	0	0	3	40	60	100	PEC
	Elective-VI (HSSC Elective-II)	3	0	0	3	40	60	100	HSSC
	Elective-VII (HSSC Elective-III)	3	0	0	3	40	60	100	HSSC
	Elective-VIII (Open Elective-II)	3	0	0	3	40	60	100	OEC
<b>Practical Course</b>									
1902EE751	Power System Simulation Laboratory	0	0	2	1	50	50	100	PCC
1904GE751	Life Skills: Comprehensive Viva	2	0	0	2	100	0	100	EEC
1904EE752	Inplant Training/Internship	0	0	0	1	100	0	100	EEC
<b>Total</b>		<b>20</b>	<b>0</b>	<b>2</b>	<b>22</b>	<b>490</b>	<b>410</b>	<b>900</b>	

### SEMESTER VIII

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
<b>Theory Course</b>									
	Elective-IX (PEC-IV)	3	0	0	3	40	60	100	PEC
	Elective-X (PEC-V)	3	0	0	3	40	60	100	PEC
<b>Practical Course</b>									
1904EE851	Project Work	0	0	14	7	50	50	100	EEC
<b>Total</b>		<b>6</b>	<b>0</b>	<b>14</b>	<b>13</b>	<b>130</b>	<b>170</b>	<b>300</b>	

  
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## List of Electives for / offered by B.E. - Electrical and Electronics Engineering

### Professional Elective Courses (PEC)

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
<b>PEC - I &amp; II</b>									
1903EE001	Special Electrical Machines	3	0	0	3	40	60	100	PEC
1903EE002	Electrical Machine Design	3	0	0	3	40	60	100	PEC
1903EE003	Electric and Hybrid Vehicles	3	0	0	3	40	60	100	PEC
1903EE004	Micro Electro Mechanical System	3	0	0	3	40	60	100	PEC
1903EE005	Automotive Electronics	3	0	0	3	40	60	100	PEC
1903EE006	Industrial Automation	3	0	0	3	40	60	100	PEC
1903EE007	Bio-Medical Instrumentation	3	0	0	3	40	60	100	PEC
1903EE008	Power Plant Engineering	3	0	0	3	40	60	100	PEC
1903EE009	Advanced Power Semiconductor Devices	3	0	0	3	40	60	100	PEC
1903EE010	Modern Power Converters	3	0	0	3	40	60	100	PEC
<b>PEC - III</b>									
1903EE011	Digital System Design using VHDL	3	0	0	3	40	60	100	PEC
1903EE012	Advanced Control Systems	3	0	0	3	40	60	100	PEC
1903EE013	Soft Computing	3	0	0	3	40	60	100	PEC
1903EE014	Electrical Energy Generation, Utilization and Conservation	3	0	0	3	40	60	100	PEC
1903EE015	Embedded System for Project Design	3	0	0	3	40	60	100	PEC
<b>PEC - IV &amp; V</b>									
1903EE016	Power System Stability	3	0	0	3	40	60		PEC
1903EE017	Power System Transients	3	0	0	3	40	60		PEC
1903EE018	Power System Economics	3	0	0	3	40	60		PEC
1903EE019	Micro and Smart Grid	3	0	0	3	40	60		PEC
1903EE020	Power System Restructuring and Deregulation	3	0	0	3	40	60		PEC
1903EE021	Modern Transmission Systems	3	0	0	3	40	60		PEC
1903EE022	Flexible AC Transmission Systems	3	0	0	3	40	60		PEC
1903EE023	Advanced Insulation Systems	3	0	0	3	40	60		PEC
1903EE024	Power Quality	3	0	0	3	40	60		PEC
1903EE025	High Voltage Engineering	3	0	0	3	40	60		PEC

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**OPEN ELECTIVE COURSES (OEC)**

Course Code	Course Name	L	T	P	C	Maximum Marks			Category
						CA	ES	Total	
1903EE026	Electronic Waste Management Issues and Challenges	3	0	0	3	40	60	100	OEC
1903EE027	Troubleshooting of Electrical Appliances	2	0	2	3	50	50	100	OEC
1903EE028	Energy Conservation and Energy Management	3	0	0	3	40	60	100	OEC
1903EE029	Electrical Drives and Control	3	0	0	3	40	60	100	OEC
1903EE005	Automotive Electronics	3	0	0	3	40	60	100	OEC

**ONE CREDIT COURSES (OCC)**

Course Code	Course Name	Category
1904EE001	PCB Design and Fabrication	EEC
1904EE002	SPICE Modeling of Electronic Circuits	EEC
1904EE003	Embedded System Design	EEC
1904EE004	Agriculture for Engineers	EEC
1904EE005	NI-LabVIEW Programming	EEC
1904EE006	MATLAB Modeling of Power Electronic Circuits	EEC
1904EE007	Electrical Wiring, Winding, Installation, Planning and Cost Estimation	EEC
1904EE008	Fisheries Engineering	EEC
1904EE009	Fundamentals of Value Engineering	EEC
1904EE010	Automotive Electronics	EEC
1904EE011	Troubleshooting and Maintenance of Electrical Appliances	EEC
1904EE012	PLC & SCADA	EEC
1904EE013	Introduction to REVIT	EEC
1904EE014	Android Architecture and Application Development	EEC
1904EE015	Electrical Safety, Standards and Practices	EEC

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**Humanities, Social Science and management Elective Courses (HSSEC) (9)**

S. No.	Course Code	Name of the Course	Number of Hours / Week			Credit
			L	T	P	
<b>Elective 1</b>						
1.	1901MGX01	Total Quality Management	3	-	-	3
2.	1901MGX02	Project Management and Finance	3	-	-	3
3.	1901MGX03	Operations Research	3	-	-	3
4.	1901MGX04	Principles of Management	3	-	-	3
<b>Elective 2</b>						
1.	1901HS001	Innovation & Entrepreneurship Fundamentals	3	-	-	3
2.	1901HS002	Intellectual Property Rights for Engineers	3	-	-	3
3.	1901HS003	Startup Entrepreneurship	3	-	-	3
4.	1901HS004	Business Model Innovation	3	-	-	3
<b>Elective 3</b>						
1.	1901HS005	Social Entrepreneurship	3	-	-	3
2.	1901HS006	Design Thinking for Innovation	3	-	-	3
3.	1901HS007	Indian Patent Law & Patent Drafting	3	-	-	3
4.	1901HS008	IP Management & Commercialization	3	-	-	3

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