



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**Bachelor of Technology in Electrical Engineering-2023**

**Semester: I**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
HSMCEE101	Communication Skills	HS	3	0	0	3	100
BSCEE101	Physics-I	BS	3	0	0	3	100
BSCEE102	Calculus & Linear Algebra	BS	4	0	0	4	100
ESCEE101	Basic Electrical and Electronics Engineering	ES	3	0	0	3	100
BSCEE191	Physics-I Lab	BS	0	0	3	1.5	50
ESCEE191	Basic Electrical and Electronics Engineering Lab	ES	0	0	3	1.5	50
ESCEE192	Engineering Graphics & Design Lab	ES	0	0	3	1.5	50
<b>TOTAL</b>						<b>17.5</b>	<b>550</b>
AU-1	Environmental Science	AU	1	0	0	0	0

**Semester: II**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
HSMCEE201	Professional Communication Skills	HS	1	0	0	1	50
HSMCEE202	Economics for Engineers	HS	3	0	0	3	100
BSCEE201	Engineering Chemistry	BS	3	0	0	3	100
BSCEE202	Probability & Statistics	BS	3	0	0	3	100
BSCEE203	Biology for Engineers	BS	2	0	0	2	50
ESCEE201	Programming for Problem solving	ES	3	0	0	3	100
HSMCEE291	Professional Communication Skills Lab	HS	0	0	2	1	50
BSCEE291	Engineering Chemistry Lab	BS	0	0	3	1.5	50
ESCEE291	Programming for Problem solving Lab	ES	0	0	3	1.5	50
ESCEE292	Workshop / Manufacturing Practices	ES	0	0	3	1.5	50
<b>TOTAL</b>						<b>20.5</b>	<b>700</b>
AU-2	Yoga and Sports	AU	0	0	1	0	0



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**Bachelor of Technology in Electrical Engineering**

**Semester: III**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
PCC-EE301	Electric Circuit Theory	PC	3	1	0	4	100
PCC-EE302	Analog Electronics	PC	3	0	0	3	100
PCC-EE303	Electromagnetic field theory	PC	3	0	0	3	100
ES-ME301	Engineering Mechanics	ES	3	1	0	4	100
BS-EE301	Mathematics	BS	3	0	0	3	100
ES-EE301	Programming in Python	ES	3	0	0	3	100
PCC-EE391	Electric Circuit Theory Laboratory	PC	0	0	2	1	50
PCC-EE392	Analog Electronics Laboratory	PC	0	0	2	1	50
ES-EE391	Programming in Python Laboratory	ES	0	0	2	1	50
MC-EE301	Indian Constitution	MC	3	0	0	0	
<b>TOTAL</b>						<b>23</b>	<b>750</b>

**Semester: IV**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
PCC-EE401	Electric Machine-I	PC	3	0	0	3	100
PCC-EE402	Digital Electronic	PC	3	0	0	3	100
PCC-EE403	Electrical and Electronics Measurement	PC	3	0	0	3	100
ES-ME401	Thermal Power Engineering	ES	3	0	0	3	100
HM-EE401	Values and Ethics in Profession	HM	3	0	0	3	100
PCC-EE491	Electric Machine-I Laboratory	PC	0	0	2	1	50
PCC-EE492	Digital Electronics Laboratory	PC	0	0	2	1	50
PCC-EE493	Electrical and Electronic Measurement Laboratory	PC	0	0	2	1	50
ES-ME491	Thermal Power Engineering Laboratory	ES	0		2	1	50
MC- EE401	Environmental Science	MC	3	0	0	0	
<b>TOTAL</b>						<b>19</b>	<b>700</b>



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**Bachelor of Technology in Electrical Engineering**

**Semester: V**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
PCC-EE501	Electric machine-II	PC	4	0	0	4	100
PCC-EE502	Power system-I	PC	4	0	0	4	100
PCC-EE503	Control system	PC	3	0	0	3	100
PCC-EE504	Power Electronics	PC	3	0	0	3	100
PE-EE501	A. High Voltage Engineering B. Power Plant Engineering C. Renewable & Non-conventional energy D. MOOC	PE	3	0	0	3	100
OE-EE501	A. Data structure & algorithm B. Object-oriented programming C. Computer organization & architecture D. MOOC	OE	3	0	0	3	100
PCC-EE591	Electric Machine-II Laboratory	PC	0	0	2	1	50
PCC-EE592	Power System-I Laboratory	PC	0	0	2	1	50
PCC-EE593	Control system Laboratory	PC	0	0	2	1	50
PCC-EE594	Power Electronics Laboratory	PC	0	0	2	1	50
<b>TOTAL</b>						<b>24</b>	<b>800</b>

\*MOOC/Equivalent MOOC approved by BoS Chair (Evaluation scheme as per Blended Learning and MOOCs Policy)



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**Bachelor of Technology in Electrical Engineering**

**Semester: VI**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
PCC-EE601	Power System-II	PC	4	0	0	4	100
PCC-EE602	Microprocessor & Microcontroller	PC	3	0	0	3	100
PE-EE601	A. Digital control system B. HVDC transmission C. Electrical Machine Design D. MOOC	PE	3	0	0	3	100
PE-EE602	A. Electrical and Hybrid vehicle B. Power quality & FACTS C. Industrial Electrical systems D. MOOC	PE	3	0	0	3	100
OE-EE601	A. Digital Signal Processing B. Communication Engineering C. VLSI & Microelectronics D. MOOC	OE	3	0	0	3	100
PCC-EE691	Power system-II Laboratory	PC	0	0	2	1	50
PCC-EE692	Microprocessor & Microcontroller Laboratory	PC	0	0	2	1	50
PCC-EE681	Electrical & Electronic Design Laboratory	PC	1	0	4	3	100
<b>TOTAL</b>						<b>21</b>	<b>700</b>

\*MOOC/Equivalent MOOC approved by BoS Chair (Evaluation scheme as per Blended Learning and MOOCs Policy)



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**Bachelor of Technology in Electrical Engineering**

**Semester: VII**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
PCC-EE701	Electric Drive	PC	3	0	0	3	100
PE-EE701	A. Control System Design B. Electrical Energy Conservation & Auditing C. Power generation economics D. MOOC	PE	3	0	0	3	100
OE-EE701	A. Artificial intelligence B. Internet of things C. Computer graphics D. MOOC	OE	3	0	0	3	100
OE-EE702	A. Embedded system B. Digital image processing C. Computer network D. MOOC	OE	3	0	0	3	100
HM-EE701	Principle of Management	HM	3	0	0	3	100
PCC-EE791	Electric Drive Laboratory	PC	0	0	2	1	50
PW-EE781	Project stage-I	PW	0	0	4	2	50
PW-EE782	Seminar	PW	0	0	0	1	50
<b>TOTAL</b>						<b>19</b>	<b>650</b>

\*MOOC/Equivalent MOOC approved by BoS Chair (Evaluation scheme as per Blended and MOOCs Course Policy)



**BRAINWARE UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF ELECTRICAL ENGINEERING**  
**Bachelor of Technology in Electrical Engineering**

**Semester: VIII**

Course Code	Course Name	Course Type	Hours per week			Credits	Total Marks
			L	T	P		
PC-EE801	Utilization of Electric Power	PC	3	0	0	3	100
PE- EE801	A. Line –commutated and active PWM rectifiers B. Power system dynamics & control C. Advanced Electric Drives D. Industrial Automation and Control E. MOOC	PE	3	0	0	3	100
OE-EE801	A. Soft computing Techniques B. Biomedical Instrumentation. C. Introduction to Machine learning D. Sensors and Transducers E. MOOC	OE	3	0	0	3	100
PW-EE881	Project stage-II	PW	0	0	16	8	100
<b>TOTAL</b>						<b>17</b>	<b>400</b>

\*MOOC/Equivalent MOOC approved by BoS Chair (Evaluation scheme as per Blended Learning and MOOCs Policy)