

BVM Engineering College (An Autonomous Institution)**Electrical Engineering Department****B. Tech.(Electrical Engineering)****Semester 1**

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	BS111*	Advanced Calculus	3	1	0	4	4
2	BS104	Semiconductor Physics	3	0	2	5	4
3	ES104	Electrical Workshop	0	0	2	2	1
4	ES109	Engineering Graphics & Design	2	0	4	6	4
5	ES110	Basic Mechanical Engineering	3	0	2	5	4
6	HS112 ^{\$}	Environmental Science [#]	2	0	0	2	0
Total			13	1	10	24	17

*For Students admitted in AY 2018-19, [BS101](#) (LTP:3,2,0)

^{\$}For Students admitted in AY 2018-19, [HS102](#) (LTP:2,2,0)

[#]Non-Credit Mandatory course

Semester 2

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	BS112 [#]	Linear Algebra and Fourier Series	3	1	0	4	4
2	BS105	Electromagnetic Physics	3	0	2	5	4
3	ES105	Programming for Problem Solving	3	0	2	5	4
4	ES112	Basics of Manufacturing Practices	0	0	2	2	1
5	ES103	Basic Electrical Engineering	3	0	2	5	4
6	HS101	English	2	0	2	4	3
Total			14	1	10	25	20

[#] For Students admitted in AY 2018-19, [BS102](#) (LTP:3,2,0)

Semester 3

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	2EE01	Electrical Circuit Analysis	3	0	2	5	4
2	2EE02	Analog Electronics	3	0	0	3	3
3	2EE03	Analog Electronics Laboratory	0	0	2	2	1
4	2EE04	Electrical Machines – I	3	0	0	3	3
5	2EE05	Electrical Machines Laboratory - I	0	0	2	2	1
6	2BS01	Ordinary Differential equations and Statistics	3	1	0	4	4
7	2HS02	Economics and Management	3	0	0	3	3
Total			15	1	6	22	19

Semester 4

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	2EE06	Digital Electronics	3	0	0	3	3
2	2EE07	Digital Electronics Laboratory	0	0	2	2	1
3	2EE08	Electrical Machines – II	3	0	0	3	3
4	2EE09	Electrical Machines Laboratory - II	0	0	2	2	1
5	2EE10	Power Electronics	3	0	0	3	3
6	2EE11	Power Electronics Laboratory	0	0	2	2	1
7	2EE12	Electrical and Electronics Measurement	3	0	0	3	3
8	2EE13	Electrical and Electronics Measurement Laboratory	0	0	2	2	1
9	2BS04	Probability and Numerical Analysis	3	1	0	4	4
10	2HS01	Professional Soft Skills	1	0	2	3	2
Total			16	1	10	27	22
	EEIS1	Internship –I (Three Weeks)#	-	-	-	-	0

#Non-Credit Mandatory course

Semester 5

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	3EE01	Electromagnetic Fields	3	0	0	3	3
2	3EE02	Power Systems-I	3	0	0	3	3
3	3EE03	Power Systems-I Laboratory	0	0	2	2	1
4	3EE04	Signals and Systems	3	0	0	3	3
5	3EE05	Signals and Systems Laboratory	0	0	2	2	1
6	3EE06	Microprocessors & Microcontrollers	3	0	0	3	3
7	3EE07	Microprocessors & Microcontrollers Laboratory	0	0	2	2	1
8	3EE08	High Voltage Engineering	3	0	2	5	4
9		Open Elective - I	3	0	0	3	3
10	3HS01	Ethics and Constitution of India#	2	0	0	2	0
Total			20	0	8	28	22
#Non-Credit Mandatory course							
Open Elective - I							
1	3CE81	Environment And Health	3	0	0	3	3
2	3CE83	Earth System and Geo-environment	3	0	0	3	3
3	3SE81	Disaster Management and Mitigation	3	0	0	3	3
4	3CP81	Fundamentals of Computer Networks and Security	3	0	0	3	3
5	3CP82	Fundamentals of Operating Systems	3	0	0	3	3
6	3IT81	Cyber security	3	0	0	3	3
7	3IT82	Internet Technology	3	0	0	3	3
8	3IT83	Software Project Management	3	0	0	3	3
9	3IT84	Enterprise Resource Planning	3	0	0	3	3
10	3EL81	Electronic Communication System	3	0	0	3	3
11	3EC81	Introduction to Cellular Communication	3	0	0	3	3
12	3EC82	Applied Electronics	3	0	0	3	3
13	3ME81	Industrial Engineering and Quality Assurance	3	0	0	3	3
14	3ME82	Project Management	3	0	0	3	3
15	3PE81	Principles Of Supply Chain Management	3	0	0	3	3

16	3PE82	Industrial Internet Of Things	3	0	0	3	3
Semester 6							
Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	3EE09	Control Systems	3	0	0	3	3
2	3EE10	Control Systems Laboratory	0	0	2	2	1
3	3EE11	Power Systems –II	3	0	0	3	3
4	3EE12	Power Systems – II Laboratory	0	0	2	2	1
5	3EE13	Industrial Automation and Control	3	0	0	3	3
6	3EE14	Industrial Automation and Control Laboratory	0	0	2	2	1
7	3EE15	Electrical Power Utilization & Traction	3	0	0	3	3
8	3EE31	Electronics Design Laboratory (Mini Project)	0	0	4	2	2
9		Open Elective – II	3	0	2	5	4
Total			15	0	12	27	21
	EEIS2	Internship – II(Three Weeks)#	-	-	-	-	0
#Non-Credit Mandatory course							
Open Elective - II							
1	3CE82	Geo-Informatics	3	0	2	5	4
2	3SE82	Advanced Strength of Materials	3	0	2	5	4
3	3SE83	Basic Concepts of Structural Behaviour	3	0	2	5	4
4	3CP85	Object Oriented Concepts and Programming	3	0	2	5	4
5	3CP84	Information Technology Essentials	3	0	2	5	4
6	3CP83	Programming with Python	3	0	2	5	4
7	3IT85	Web Application and Development	3	0	2	5	4
8	3IT86	Java Programing	3	0	2	5	4
9	3IT87	Object Oriented Programming with C++	3	0	2	5	4
10	3IT88	Mobile Application Development	3	0	2	5	4
11	3EL82	Basics of Embedded and IoT Systems	3	0	2	5	4
12	3EL83	Sensor Technology	3	0	2	5	4
13	3EC83	Embedded Systems and IOT	3	0	2	5	4
14	3ME83	Renewable Energy Sources	3	0	2	5	4

15	3ME84	Energy Conservation and Management	3	0	2	5	4
16	3PE83	Managing Projects	3	0	2	5	4
17	3PE84	Additive Manufacturing	3	0	2	5	4

Semester 7

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	4EE01	Power System Protection	3	0	0	3	3
2	4EE02	Power System Protection Laboratory	0	0	2	2	1
3	4EE03	Computer Aided Electrical Machine Design	2	0	2	4	3
4	4EE04	Hardware and Software Skills Laboratory	0	0	2	2	1
5		Program Elective – I	3	0	0	3	3
6		Program Elective - II	3	0	0	3	3
7		Program Elective – III	3	0	2	5	4
8	4EE32	Project Stage – I	0	0	4	4	2
Total			14	0	12	26	20

Program Elective – I & II

1	4EE42	High Voltage DC Transmission Systems	3	0	0	3	3
2	4EE43	Power Quality and FACTS	3	0	0	3	3
3	4EE44	Industrial Electrical Systems	3	0	0	3	3
4	4EE45	Power System Dynamics and Control	3	0	0	3	3
5	4EE46	Digital Control Systems	3	0	0	3	3
6	4EE47	Digital Signal Processing	3	0	0	3	3
7	4EE49	Condition Monitoring of Electrical Equipments	3	0	0	3	3
8	4EE50	Distributed Generation	3	0	0	3	3
9	4EE51	Restructuring of Power Systems	3	0	0	3	3
10	4EE52	Smart Grid	3	0	0	3	3
11	4EE53	Commissioning of Electrical Equipments	3	0	0	3	3

Semester 8 [Scheme A]

Sr. No	Course Code	Name of Course	L	T	P	H	C
1		Program Elective –IV	3	0	2	5	4
2		Program Elective -V	3	0	2	5	4
3	4EE33	Project Stage-II	0	0	20	20	10
Total			6	0	24	30	18

Program Elective –III, IV & V

1	4EE54	Industrial Instrumentation	3	0	2	5	4
2	4EE55	Electrical Drives	3	0	2	5	4
3	4EE56	Electrical Transients and Switchgear	3	0	2	5	4
4	4EE57	Power System Practice and Design	3	0	2	5	4
5	4EE58	Non-Conventional Energy Sources	3	0	2	5	4
6	4EE59	Power System Operation and Control	3	0	2	5	4
7	4EE60	Electrical Energy Conservation and Auditing	3	0	2	5	4
8	4EE61	Embedded Systems	3	0	2	5	4
9	4EE62	Optimization of Power Systems	3	0	2	5	4
10	4EE63	Electrical and Hybrid Vehicles	3	0	2	5	4
11	4EE64	Wide Area Measurement Systems (WAMS) and Applications	3	0	2	5	4
12	4EE65	Artificial Intelligence (AI) Applications to Electrical Engineering	3	0	2	5	4

OR

Semester 8 [Scheme B]

Sr. No.	Course Code	Name of Course	L	T	P	H	C
1	4EE34	External Project	0	0	36	36	18
Total Credits Distribution			108	4	102	214	159