



**VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY  
(AUTONOMOUS)**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
PEED M. TECH - COURSE STRUCTURE (R21)**

**M.TECH - I YEAR I – SEMESTER**

**R21**

Course Type	Course Code	Name of the Course	L	T	P	Credits
Professional Core - I	21PE6111	Machine Modeling and Analysis	3	0	0	3
Professional Core - II	21PE6112	Power Electronic Devices and Converters	3	0	0	3
Professional Elective -I	21PE6171 21PS6171 21EC6171	1. Renewable Energy Systems 2. Smart Grid Technologies 3. Advanced Digital Signal Processing	3	0	0	3
Professional Elective -II	21PE6172 21PE6173 21PE6174	1. FACTS and Custom Power Devices 2. Electric Traction System 3. Modern Control Theory	3	0	0	3
Professional Core Lab-I	21PE6151	Machine Modeling Simulation Lab	0	0	4	2
Professional Core Lab-II	21PE6152	Power Converters Lab	0	0	4	2
Mandatory Course	21MC6111	Research Methodology & IPR	2	0	0	2
Audit	21AU6101	Stress Management by Yoga	2	0	0	0
Total						18

**M.TECH - I YEAR II – SEMESTER**

**R21**

Category	Course Code	Course Title	L	T	P	Credits
Professional Core -III	21PE6211	Advanced Power Electronics	3	0	0	3
Professional Core -IV	21PE6212	Electric Drives	3	0	0	3
Professional Elective -III	21PS6271 21PE6271 21PE6272	1.Reactive Power Compensation and Management 2. Power Electronics for Renewable Energy Systems 3. High-power converters & topologies	3	0	0	3
Professional Elective -IV	21PE6273 21EC6271 21PS6275	1.AI Techniques in Electrical Engineering 2. Advanced Micro Controller based Systems 3. Power Quality	3	0	0	3
Professional Core Lab-III	21PE6251	Advanced Power Electronics Simulation Lab	0	0	4	2
Professional Core Lab-IV	21PE6252	Electric Drives Lab	0	0	4	2
Project Work	21PE6291	Mini project with Seminar	0	0	4	2
Audit	21AU6201	English for Research Paper Writing	2	0	0	0
Total						18



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**M.TECH - II YEAR I – SEMESTER**

**R21**

S.No.	Category	Course Code	Course Title	L	T	P/D	Credits
1	Professional Elective -V	21PE7171 21PE7172 21PE7173	Energy Storage Technologies Electric and Hybrid Vehicles Digital Control Systems	3	0	0	3
2	Open Elective			3	0	0	3
3	Project Work	21PE7181	Dissertation Work Review - I	0	0	12	6
Total							12

**M.TECH - I IYEAR I I– SEMESTER**

**R21**

S.No.	Category	Course Code	Course Title	L	T	P	Credits
1	Project Work	2PE7281	Dissertation Work Review — II	0	0	12	6
2	Project Work	21PE7282	Dissertation Viva-Voce	0	0	24	14
Total							20