

1.2.1

**Supporting Documents-**  
**Department of Electrical Engineering**  
**List of New Courses Introduced**



**I.K Gujral Punjab Technical University, Kapurthala**  
**Department of Electrical Engineering**  
**(Main Campus)**

1.2.1

QnM

**Percentage of new courses introduced of the total number of courses across all programmes offered during the year**

B. Tech. EE: Nil

M. Tech. EE (PSRE): 46

Core:  $2 + 2 + 0 + 0 = 4$

Professional Elective:  $4 + 4 + 4 + 4 + 4 = 20$

Practical/ Laboratory:  $2 + 2 + 0 + 0 = 4$

Audit:  $4 + 4 + 0 + 0 = 8$

Open Elective:  $0 + 0 + 6 + 0 = 6$

Others:  $1 + 0 + 0 + 0 = 1$

Seminar/Project/Dissertation:  $0 + 1 + 1 + 1 = 3$

PhD: Nil

1.2.1.1 :Number of courses offered by the institution across all Programmes during the year **118**

1.2.1.2

B. Tech ( EE)	18	21	21	7	<b>67</b>
M. Tech. EE (PSRE)	24	15	04	3	<b>46</b>
PhD	5	-	-	-	<b>05</b>

Data Requirement for the year:(As per Data Template)

Name of the new course introduced

B. Tech. EE: Nil

M. Tech. EE (PSRE): 46

PhD: Nil

Sr No	Name of the Course	Course Code
1.	Computer Aided Power System Analysis	PSRE-101/21
2.	Distributed Generation	PSRE-102/21
3.	FACTS and custom Power Devices	PSRE-103A/21
4.	Advanced Power System Protection	PSRE-103B/21
5.	Mathematical Methods for Power Engineering	PSRE-103C/21
6.	Analysis of Power Converter	PSRE-103D/21
7.	Solar PV Energy System	PSRE-104A/21
8.	Waste to Energy Conversion Technologies	PSRE-104B/21
9.	Small Hydro and Non-Conventional Technologies	PSRE-104C/21
10.	Solar Energy Conversion Technologies	PSRE-104D/21
11.	Computer Aided Power System Analysis Lab	PSRE-105/21
12.	Power Simulation Lab-I	PSRE-106/21
13.	English for Research Paper Writing	MTA-101/21
14.	Disaster Management	MTA-102/21
15.	Sanskrit for Technical Knowledge	MTA-103//21


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*(Signature)*  
 26/12/23



16.	Value Education	MTA-104/21
17.	Research Methodology and IPR	MTRM-101/21
18.	Power system simulation lab-II	PSRE-205/21
19.	Renewable energy lab	PSRE-206/21
20.	Mini Project with Seminar	MTPR-101/21
21.	Energy Forecasting and Modeling	PSRE-201/21
22.	Power System Generation Control	PSRE-202/21
23.	Power Quality and and Harmonic Analysis	PSRE-203A/21
24.	Power System Dynamics	PSRE-203B/21
25.	Reliability Analysis and Protection	PSRE-203C/21
26.	Energy Economics and Policies	PSRE-203D/21
27.	Electric and Hybrid Vehicles	PSRE-204A/21
28.	Smart Grids	PSRE-204B/21
29.	Engineering Optimization	PSRE-204C/21
30.	Artificial Intelligence Techniques	PSRE-204D/21
31.	Constitution of India	MTA-105/21
32.	Pedagogy Studies	MTA-106/21
33.	Stress Management of Yoga	MTA-107/21
34.	Personality Development through Life Enlightenment Skills	MTA-108/21
35.	Industrial Load Modeling and Control	PSRE-301A/21
36.	Power System Deregulation	PSRE-301B/21
37.	Solar PV Energy System	PSRE-301C/21
38.	Energy Storage System	PSRE-301D/21
39.	Business Analysis	MTOE-301A/21
40.	Industrial Safety	MTOE-301B/21
41.	Operations Research	MTOE-301C/21
42.	Cost Management of Engineering Projects	MTOE-301D/21
43.	Waste to Energy	MTOE-301F/21
44.	Composite Materials	MTOE-301E/21
45.	Phase-I Dissertation	PSRE- 302/21
46.	Phase-II Dissertation	PSRE-401/21

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