COURSE STRUCTURE

for

M. Tech. DEGREE

in

POWER SYSTEMS

(Applicable from the academic session 2024-2025)

Dr. B. C. Roy Engineering College, Durgapur
(An Autonomous Institute)

Approved by: All India Council of Technical Education

Affiliated to: Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly known as: WBUT)

Jemua Road, Durgapur, West Bengal, India, 713206

The BOS of M.Tech (Power Systems) in its first meeting (held in the department of EE (Electrical Engineering) on 6th of November, 2024 has unanimously accepted and approved the two year course structure of M.Tech (Power Systems).

Signature of the BoS Chairman

Head
Dept. Electrical Engineering
Dr. B. C. Roy Engineering College
Durgapur

Dr. B. C. Roy Engineering College, Durgapur

(An Autonomous Institute Affiliated to MAKAUT, West Bengal)

DEPARTMENT OF ELECTRICAL ENGINEERING

CURRICULUM OF M-TECH COURSE

(APPLICABLE FOR ACEDEMIC YEAR 2024-25)

1st Sem

Theory

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	PSM 101	Advanced Power System	3	1	0	4	4
2	PSM 102	High Voltage Engineering	4	0	0	4	4
3	PSM 103	HVDC transmission and converters	4	0	0	4	4
4	PSM 104	Elective – I	4	0	0	4	4
5	PSM 105	Elective - II	4	0	0	4	4

Practical

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	PSM 191	Power system Hardware lab-1	0	0	3	3	2
2	PSM 192	Power system Software lab-1	0	0	3	3	2
	PSM 181	Seminar-1	0	0	3		2
Total of semester							26

2nd Sem

Theory

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	PSM 201	Power System Operation and Control	3	1	0	4	4

2	PSM 202	Power System Instrumentation	3	1	0	4	4
3	PSM 203	Advanced Power System Protection	4	0	0	4	4
4	PSM 204	Elective – III	4	0	0	4	4
5	PSM 205	Elective - IV	4	0	0	4	4

Practical

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	PSM 291	Power system Hardware lab-2	0	0	3	3	2
2	PSM 292	Power system Software lab-2	0	0	3	3	2
	PSM 281	Seminar-1	0	0	3	3	2
Total of semester							26

3rd Sem

Theory

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	EMM 301	Introduction to Management	4	0	0	4	4
2	PSM 301	Elective V	4	0	0	4	4

Sessional

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	PSM 381	Pre-submission Defense of Dissertation	0	0			4
2	PSM 382	Dissertation (Part I)	0	0			10
Total of semester							22

4th Sem

Sessional

	Code	Paper	Contacts period per week			Total Contact Hrs	Credit
			L	T	P		
1	PSM 481	Dissertation (Completion)	0	0			14
2	PSM 482	Post submission defense of Dissertation	0	0			8
3	PSM 483	Comprehensive Viva-Voce	0	0			4
Total of semester							26

Elective I

i) Power System Planning and Reliability - PSM 104 (a)

ii) Power System Apparatus - PSM 104 (b)

iii) Power Quality and audit - PSM 104 (c)

Elective II

i) Soft Computing Techniques - PSM 105 (a)

ii) Smart Grid Technology- PSM 105 (b)

iii) Conditioning Monitoring and power apparatus- PSM 105 (c)8

Elective III

i) Power System Transient – PSM 204 (a)

ii) Flexible A.C. Transmission System - PSM 204 (b)

Elective IV

i) Advanced Control System- PSM 205 (a)

ii) Power system modelling and simulation- PSM 205 (b)

Elective V

i) Non-conventional Energy - PSM 301 (a)

ii) Energy Management – PSM 301 (b)