

Indian Institute of Technology Palakkad

Curriculum



IIT PALAKKAD

Program : Master of Technology
Stream : Power Electronics and Power Systems
Year : 2026 Onwards

In the modern power system, power electronics is a key enabling technology. An understanding of power conversion technologies, their control, and application in power systems, along with other allied topics, are therefore essential to all power engineers.

Vision: "Develop and maintain a high-quality teaching and research environment in Power Electronics and Power Systems and to emerge as a centre of excellence for contributing towards society."

The credit requirement of the program is as follows:

Credit requirements :

Category of the course	Credits
Program Major Core (PMC)	19
Program Major Electives (PME)	6
Project Based Courses	23
Open Electives (OE)	6
Humanities and Social Sciences Elective (HSE)	0
Communication Skills	1
Technical Writing	1
Total	56

To guide the students towards arriving at a feasible ordering of courses, a course plan or sample template is shown below. It is not mandatory to follow this plan. Multiple variations of this plan may be possible. However, students need to ensure that the credit requirements under each category are met as shown in the summary table above.

While the system allows flexibility for students to take courses in an order different from that suggested below, the constraint that prerequisites for each course have to be cleared in advance to be able to take it, necessitates a judicious choice to complete the program within the expected time frame.

Semester I

No.	Course code	Course Title	L	T	P	C	Category
1	EE5024	DC-DC Power Converters - Analysis and Simulation	3	0	2	4	PMC
2	EE5017	Power System Analysis And Operation	3	0	0	3	PMC
3	EE5026	Modelling, Analysis and Simulation of Electrical Machines	3	0	2	4	PMC
5	EE5xxx	Elective-1	3	0	0	3	PME/OE
6	GN5005	Communication Skills	1	0	0	1	IC
7	ID5002	Technical Writing	1	0	0	1	IC
		Semester Total	14	0	4	16	

Semester II

No.	Course code	Course Title	L	T	P	C	Category
1	EE5025	DC-AC Power Converters - Analysis and Simulation	3	0	2	4	PMC
2	EE5103	Power Converters Design Lab	0	0	3	2	PMC
3	EE5101	Power Systems Simulation Lab	0	0	3	2	PMC
4	EE5xxx	Elective-2	3	0	0	3	PME/OE
5	EE5xxx	Elective-3	3	0	0	3	PME/OE
6	EE5xxx	Elective-4	3	0	0	3	PME/OE
		Semester Total	12	0	8	17	

*Note - PME/OE is marked in the table to illustrate flexibility of crediting different categories of electives in any order. However, the student will have to take elective courses such that at least 6 credits belong to the PME category, and at least 6 credits belong to the OE category, respectively, and satisfy minimum credit requirements for each category as required by the regulations.

SUMMER TERM

No.	Course code	Course Title	L	T	P	C	Category
1	PE5190	*Internship/Mini-project	-	-	-	0	Project Based Courses
		Semester Total	-	-	-	0	

*PE5190 (Internship/Miniproject) has pass-fail evaluation.

Semester III

No.	Course code	Course Title	L	T	P	C	Category
1	PE5110	Professional Major Project Phase -1	-	-	-	11	Project Based Courses
		Semester Total	-	-	-	11	

Semester IV

No.	Course code	Course Title	L	T	P	C	Category
1	PE5120	Professional Major Project Phase -2	-	-	-	12	Project Based Courses
		Semester Total	-	-	-	12	

A tentative list of program electives that are approved can be found here:

https://docs.google.com/document/d/12qczJ3GQqMJjnpwVeR5GoEP3G8seWbx6kV_bb3Yah4/edit?usp=sharing

The program electives that would actually be offered from the list of approved electives would change each semester.