

Course Type	Course Code	Name of the Course	L	T	P	Credits
DP	NEEC517	Advanced Drives Lab	0	0	3	1.5

Course Objective

- The objective of this lab is to introduce postgraduate students to the practical aspects of advanced machine drives.

Learning Outcomes

Upon successful completion of this course, students will develop:

- an ability to know about the advanced electrical drives control techniques.
- an idea about the working of advanced electrical drives.

Unit No.	Topics to be Covered	Contact Hours	Learning Outcome
1	Experiments on scalar and vector control of AC motor drives	2x4	Students will learn scalar and vector control techniques
2	Experiments on synchronous motor drives	2x4	Students will learn working of synchronous motor drives
3	Experiments on permanent magnet motor drives	2x4	Students will learn working of permanent magnet motor drives
4	Experiments on induction motor drives	2x3	Students will learn working of induction motor drives
5	Experiments on switched reluctance motor drives	2x3	Students will learn working of switched reluctance motor drives
6	Practice and review	6	-----
Total Contact Hours		42	

Text Books:

- G.K. Dubey, "Fundamentals of Electrical Drives", Narosa Publ.
- P.S. Bhimbra, "Generalized Theory of Electrical Machines", Khanna Pub.

Reference Books:

- Bimal K Bose, "Modern Power Electronics and AC Drives", Prentice Hall.
- Paul C. Krause, Oleg Wasynczuk, Scott D. Sudhoff, "Analysis of Electric Machinery and Drive Systems", Wiley, 2nd Ed.