18PEC14	ADVANCED DIGITAL CONTROL LABORATORY	L	T	P	C
		0	0	4	2

Course Objectives:

1. Implementation of DSC to various control techniques
2. Writing coding for control techniques

LIST OF EXPERIMENTS:

1. Interfacing of LCD with DSC and displaying a message
2. Generation of Square Trigger Pulse using DSC
3. Measurement of Voltage/Current/Temperature
4. Open loop control of Buck/Boost/Buck-Boost Converter using DSC
5. Closed loop control of Buck/Boost/Buck-Boost Converter using DSC
6. Single phase square wave inverter control in open loop using DSC
7. Single phase square wave inverter control in closed loop using DSC
8. Single Phase AC-DC Converter in open loop using DSC
9. Single Phase AC-DC Converter in closed loop using DSC
10. Sine PWM based single phase inverter using DSC
11. Single phase AC Voltage controller control using DSC
12. Three Phase Inverter control using DSC

Total (60+0)= 60 Periods

Course Outcomes:

Upon completion of this course, the students will be able to:

CO1	:	*Understand the peripheral requirements for controlling the circuit*
CO2	:	*Understand and implement the configurations of various required peripherals*
CO3	:	*Write coding to implement the devised control technique*
CO4	:	*Understand and implement the measurement principles through digital techniques*
CO5	:	*Develop algorithms for implementation of controls and implement isolation techniques for power control*

PO / CO	CO Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	*Understand the peripheral requirements for controlling the circuit*	1	1	1	1	1	1	1	1	1	1	1
CO2	*Understand and implement the configurations of various required peripherals*	1	1	1	1	1	1	1	1	1	1	1
CO3	*Write coding to implement the devised control technique*	1	1	1	1	1	1	1	1	1	1	1
CO4	*Understand and implement the measurement principles through digital techniques*	1	1	1	1	1	1	1	1	1	1	1
CO5	*Develop algorithms for implementation of controls and implement isolation techniques for power control*	1	1	1	1	1	1	1	1	1	1	1