

Course Type	Course Code	Name of Course	L	T	P	Credit
DP	MMC210	HYDRAULICS & PNEUMATICS LAB	0	0	2	02

1	To study the construction and operation of different hydraulic components mentioned below: Gear pump, Piston pump and Vane pump; Direction control valve (DCV), Flow control valve and Pressure control valve
2	To understand the making of different hydraulic circuits in the hydraulic trainer
3	To develop the hydraulic regenerative system on hydraulic trainer and estimate the effectiveness of regeneration.
4	To develop the sequential circuit and study its operation limited by clamping pressure.
5	To perform extension and retraction of the cylinder upon the operation of push-button with and without latching.
6	To perform limited extension and retraction of cylinder using proximity switch.
7	To perform rapid advance cum meter-out extension and uniform retraction using two proximity sensor.
8	To develop a hydraulic sequential system using proximity and pressure switch.
9	To perform rapid advance cum meter-out extension and uniform retraction using two proximity sensors.
10	To develop a hydraulic system using an accumulator and study it's functioning.
11	To develop a pneumatic system using FR unit, DCVs, bypass throttle valve, quick exhaust valve, time delay valve, and Pneumatic cylinder.
12	Demonstration of operation of different hydraulic transmission systems used in industries.