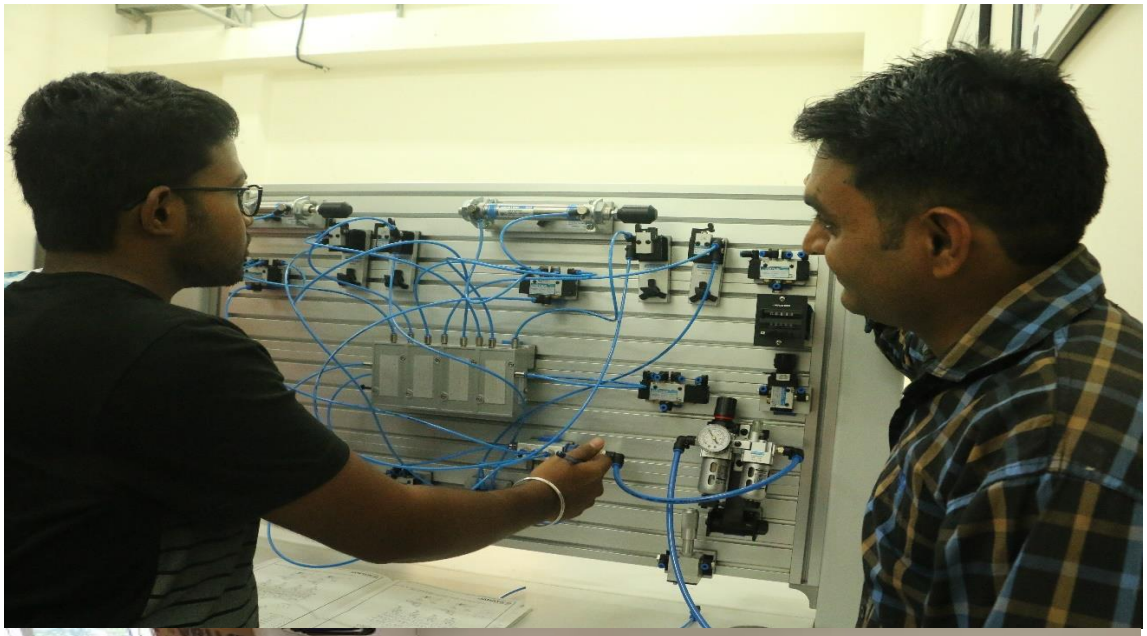

Name of Laboratory	**PNEUMATICS & HYDRAULICS LAB**
Objective of Lab	Modify the circuit using different valves and PLC to control the final actuator motion using electrical controls used in industrial scenario thus enhancing employability skills.
Description of Laboratory	A pneumatic system carries power by employing compressed gas, generally air, as a fluid for transmitting energy from an energy-generating source to an energy-using point to accomplish useful work. The

	enclosed fluids (liquids and gases) can also be used as prime movers to provide controlled motion and force to the objects or substances. The specially designed enclosed fluid systems can provide both linear as well as rotary motion. The high magnitude controlled force can also be applied by using these systems. This kind of enclosed fluid based systems using pressurized incompressible liquids as transmission media are called as hydraulic systems. The hydraulic system works on the principle of Pascal's law which says that the pressure in an enclosed fluid is uniform in all the directions. The force given by fluid is given by the multiplication of pressure and area of cross section. As the pressure is same in all the direction, the smaller piston feels a smaller force and a large piston feels a large force. Therefore, a large force can be generated with smaller force input by using hydraulic systems.
Major Equipment of laboratory	• Pneumatic Trainer Kit • PLC • Hydraulic Trainer Kit • Servo Valves • Industrial grade Sensors