

WORLD INSTITUTE OF TECHNOLOGY, SOHNA

Workshop - The lathe is a machine tool which holds the workpiece between two rigid and strong supports called centers or in a chuck or face plate which revolves. The cutting tool is rigidly held and supported in a tool post which is fed against the revolving work and Perform many operations. **Milling machine** is a machine tool in which a **horizontal** arbor or **vertical** spindle rotates a cutting tool above a horizontal table, which is used to move a work piece. **Drilling machine, Gas Welding, Arc Welding set, Power hacksaw etc.**

Computer Numerical Control (CNC) Machining is a process used in the manufacturing sector that involves the use of computers to control machine tools. Tools that can be controlled in this manner include **CNC Lathe Trainer and CNC Mill trainer.**

SOM Lab- Strength of material is its ability to withstand an applied load without failure or plastic deformation. In this Lab certain machines are used like **UTM, Torsion Testing m/c, Impact testing m/c and hardness testing m/c etc.**

Refrigeration air conditioning comes from the fact that such air conditioners use refrigerant to chill the air much the same way as refrigerators chill your food. ... If the flow of refrigerant in the air conditioner can be reversed then the unit is capable of heating as well as cooling. **Mechanical heat pump, Ice plant and Duct type air conditioner etc.**

Fluid machine lab – The device which converts the energy stored by a fluid into mechanical energy or vice versa. The energy stored by a fluid mass appears in the form of potential, kinetic and intermolecular energy.and use turbine like **Pelton turbine, Francis turbine, hydraulic ram and Gear oil pump etc.**

Fluid mechanics lab –The branch of physics concerned with the mechanics of fluids (liquids, gases, and plasmas) and the forces on them. ... Fluid mechanics can be divided into fluid statics, the study of fluids at rest; and fluid dynamics, the study of the effect of forces on fluid motion.and use equipment are **Orifice meter, Venturi meter, Reynolds Number, Bernoulli's theorem apparatus and Meta centric height etc.**

Dynamics of Machine Lab- The study the motion of machines and mechanisms, taking into account the forces acting on them and used the equipment like **Universal governor, motorized gyroscopic, static and dynamic balancing m/c etc.**

Kinematic of Machine lab - The study of motion any one link in the kinematic chain will give a definite and predictable motion relative to each of the others. And many equipment like **belt and pulley apparatus and different types of Cam and follower, gears and mechanisms etc.**

Automobile Engineering Lab- The branch of **engineering** which deals with designing, manufacturing and operating **automobiles**. It is a segment of **vehicle engineering** which deals with motorcycles, buses, trucks, etc. and use of equipments are **Different models of gear box, steering system, and Cut section of different engines and etc.**

Internal Combustion Engine (IC engine Lab) is a heat **engine** where the combustion of a fuel occurs with an oxidizer in a combustion chamber that is an integral part of the working fluid flow circuit. and apparatus are **Four stroke single cylinder diesel engine test rig, Four stroke four cylinder petrol engine test rig, Two stroke single cylinder petrol engine test rig and different types of Models**

Heat transfer lab - The movement of thermal energy from one thing to another thing of different temperature. There **are** three different ways the **heat can transfer: conduction** (through direct contact), convection (through fluid movement), or radiation (through electromagnetic waves).and equipment are **two phase heat transfer apparatus, Stefan boltzman apparatus, thermal conductivity of insulating slab etc.**

Materials science lab is a syncretic discipline hybridizing metallurgy, ceramics, solid-state physics, and chemistry. And use of equipment are **Metallurgical mounting press machine, emery paper stand, Metallurgical polishing machine, muffle furnace water quenching machine and Metallurgical microscope.**