

## Engineering Workshop



An Engineering Workshop has become an important field in the industrial atmosphere to produce products for the service of mankind. The knowledge of converting a raw material into a use full product is highly essential for all engineers for familiarizing with concepts. The basic need of **Engineering Workshop** is to provide theoretical and practical knowledge of manufacturing environment to all the engineering students. Therefore, an attempt has been made through this laboratory subject to learn both the theoretical and practical knowledge of shaping a product. Considering the general needs of engineering students in the country and the fact that they hardly get any exposure to hand tools, equipments, machines and manufacturing setups, a basic course in **Engineering Workshop** remains a core subject for all the branches of engineering. This **Engineering Workshop** laboratory classes covers most of the basic skill that an engineering student needs to familiarize themselves.

The **Engineering Workshop** laboratory in JIIT-128 has six major sections such as Machine shop, Carpentry shop, Fitting Shop, Welding shop, Sheet metal shop and Moulding shop. The utility of each shop in shaping engineering students in the manufacturing environment are discussed as:

**Machine shop:** In a machine shop, metals are cut to different shapes as per the requirement of the manufacturer. Major machines that are available in the JIIT-128 are lathe, shaper, milling, drilling and grinding machine.

**Carpentry shop:** Carpentry shop deals with making joints for a variety of applications like door frames, cabinet making furniture, packing etc.

**Fitting Shop:** The fitting shop is related to assembly of parts, after bringing the dimension or shape to the required size or form, in order to secure the necessary fit.

**Welding shop:** In welding shop, an engineering student learns the art of joining similar metals by the application of heat, with or without application of pressure or filler metal.

**Sheet metal shop:** In sheet metal shop an engineering student learns the art of making various house hold articles such as boxes, cans, funnels, ducts etc., which are made from a flat sheet of metals.

**Moulding shop:** Moulding shop is the platform where an engineering student learns the art of making of manufacturing by shaping liquid or pliable raw material using a rigid frame called a mould or matrix.