



# SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35



## DEPARTMENT OF MECHANICAL ENGINEERING

### GEOMETRICAL FEATURES

- **Pitch**

It is the distance measured parallel to the screw threads axis between the corresponding points on two adjacent threads in the same axial plane. The basic pitch is equal to the lead divided by the number of thread starts.

- **Lead:**

The axial distance advanced by the screw in one revolution is the lead.

- **Addendum**

Radial distance between the major and pitch cylinders for external thread.

Radial distance between the minor and pitch cylinder for internal thread.

- **Dedendum**

It is the radial distance between the pitch and minor cylinders for external thread.

Also radial distance between the major and pitch cylinders for internal thread.

- **Pressure angle (a)**

It is the angle making by the line of action with the common tangent to the pitch circles of mating gears.

- **Module(m)**

It is the ratio of pitch circle diameter to the total number of teeth

- **Lead angle**

It is the angle between the tangent to the helix and plane perpendicular to the axis of cylinder.

- **Straightness**

A line is said to be straight over a given length, if the variation of the distance of its from two planes perpendicular to each other and parallel to the general direction of the line remains within the specified tolerance limits

- **Roundness** Roundness is defined as a condition of a surface of revolution. Where all points of the surface intersected by any plane perpendicular to a common axis in case of cylinder and cone.