

### **Assignment**

1. Obtain a relationship between Rigidity Modulus and Young's Modulus
2. Obtain the relationship between the three Elastic Constants
3. In an experiment an alloy bar 1m long and 20mm\*20mm in section was subjected to a tensile load of 6.4kN. If the length of the bar increases by 0.1mm, Calculate the value of Poisson's ratio.

Take  $K = 1.33 \times 10^5 \text{ N/mm}^2$