## Physics Practical - Screw Gauge

Aim: To find the volume of the given wire using a Screw Gauge.

## Procedure:

1. Determine the Least Count of the Screw Gauge.
2. Determine the Zero Error of the Screw Gauge.
3. Find the Diameter of the given wire using the given Screw Gauge.
4. Take a minimum of 5 different readings at different positions of the wire.
5. Find the radius of the given wire.
6. Determine the length of the given wire using a meter scale.
7. Determine the volume of the given wire.

## Observations:

Pitch $=$ Distance moved by thimble on Main Scale / Number of rotations of thimble= $\qquad$
Pitch $=$ $\qquad$
Least count $=$ Pitch $/$ Number of Circular Scale divisions $=$ $\qquad$
Least count $=$ $\qquad$ (1)

Zero Error = $\qquad$ (2) Correction $=$ $\qquad$

Determine the Diameter of the wire:

Observed Reading = Main Scale Reading + Circular Scale Reading
Corrected Reading $=$ Observed Reading + Correction

| $\frac{\text { Reading }}{\text { Number }}$ | $\frac{\text { Main Scale }}{\text { Reading }}$ | $\frac{\text { Circular Scale }}{\text { Reading }}$ | $\frac{\text { Observed }}{\text { Diameter }}$ | $\frac{\text { Corrected }}{\text { Diameter }}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |

Average Diameter of the wire cylinder $=$ $\qquad$

Radius (r) of the wire cylinder $=$ Diameter $/ 2=$

Length (1) of the wire = $\qquad$

## Conclusion:

Volume of the wire $=\pi r^{2} 1=$ $\qquad$

Volume of the wire is

