**Tensile Test Lab 2**

**THEORY :-** The modulus of Elasticity for a 3D Printed plastic sample is much smaller than other materials.

**PROCEDURE :-**

1. The load pointer is set at zero by adjusting the initial setting knob.

2. The dial gauge is fixed and the specimen for measuring elongation of small amounts.

3. Measuring the diameter of the test piece by caliper at least at three places and determine the mean value also mark the gauge length.

4. Now the specimen is gripped between upper and middle cross head jaws.

5. Set the automatic graph recording system.

6. The specimen is loaded gradually and the elongation is noted until the specimen breaks.

7. Use VMSE software to compare your results.

**OBSEVATION :-**

(I) Initial width of specimen w1 =—–

(II) Initial gauge length of specimen L1 =—-

 (IV) Load of yield point Ft. =—-

(V) Ultimate load after specimen breaking F =—-

(VI) Final length after specimen breaking L2 =—–

(VII) Width Of specimen at breaking place w2 =——

**CALCULATION :-**

(i) Ultimate tensile strength =

(ii) Percentage elongation % =

(iii) Modulus of elasticity E =

(iv) Yield stress =

(v) % reduction in area =

**PRECAUTIONS :-**

1. The specimen should be prepared in proper dimensions.

2. The specimen should be properly to get between the jaws.

3. Take reading carefully.

4. After breaking specimen stop to m/c.

**RESULT :-**

CONCLUSION :-