**ME-643 Materials Processing and Simulation Laboratory**

Prof. Ramesh Singh **Venue:** Machine tool Lab Date: 28/1/2014

**List of Experiment:**

**Module1:** Deform 2D Machining

* Benchmarking with the Merchant’s theory
* Evolution of state variables (stress, strain and strain rate etc.)
* Effect of rake angle
* Effect of cutting speed
* Effect of edge radius

**Module 2:** Deform 3D Machining

* Evolution of state variables (stress, strain, strain rate etc.)
* Effect of cutting speed
* Effect of tool geometry

**Module 3:** White Light Interferometry

* Measurement of form and surface roughness

**Instructions for report submission:**

* Every student has to submit his individual report, **no group report submission**
* There should not be any copying on the report, if anyone is found copying, he/she will be awarded **zero** marks in the lab and will be recommended for FR grade.