



Finolex Academy of Management & Technology, Ratnagiri

Department of Mechanical Engineering

One day Bridge Course

The department of Mechanical Engineering organized '**One day Bridge Course on Introduction to Machines for Second Year Mechanical Engineering students**' on 5th July 2017. The bridge course of 6 hours was consisted of three sessions.

First session on **Introduction to machines** - lathe, shaper, drilling machine and milling machine was engaged by **Prof. G. J. Abhyankar & Prof. A.S. Yekane**. The importance and applications of various machine tools in context of the subject production process-I were explained to the students. **Mr. R. V. Utekar** demonstrated the arc welding. **Mr. R. R. Bhosale** demonstrated lathe and grinding machines. **Mr. A. A. Lingayat** gave the demonstration on radial drilling machine, shaper and milling machine.



Prof. G. J. Abhyankar, Prof A. S. Yekane and Mr. Lingayat during introduction



Mr. R. V. Utekar demonstrating Arc Welding Set up



Mr. R.R.Bhosale demonstrating the Lathe Machine



Practical Demonstration of Radial Drilling Machine by Mr. A.A.Lingayat



Demonstration of shaping machine by Prof. G. J. Abhyankar and Mr. Lingayat

The **second session** was conducted on “**Fundamentals of physical metallurgy**” by **Prof U D Gulhane and Prof J S Anavkar**. In relation to study of Iron- Iron carbide diagram during course on **Material Technology** in **semester III**, basics such as - Use of Gibb’s phase rule, cooling curve for pure metals and cooling curve for binary solid solution, use of cooling curves for plotting of equilibrium diagrams, Plotting of equilibrium diagram, Reading of phase diagrams, application of Lever rule to phase diagrams were discussed via power point presentation followed by interactive question answers on few examples. This session will benefit students while understanding the prescribed contents of module- Theory of alloy & alloy diagrams of Material Technology subject.

The **third session** of bridge course was about “**Introduction to Partial Differential Equations**” conducted by **Prof. Harsha N Kelkar**. As students of Second year will study **Numerical Solutions to partial differential equations (PDE)** during their course on **Applied Mathematics III** of **semester III**, they were introduced to the basics such as; Multivariable Functions, Partial Derivatives of first and higher order, Formation of First order PDE, various solution methods to solve first order PD through practical application, examples. It will definitely benefit students while studying the prescribed contents of module Partial Differential Equations as well as help them in the preparation for GATE exam.