Devi Ahilya University, Indore
Syllabus for Ph. D. Course Work in Mechanical Engineering
(Under the Faculty of Engineering)

PAPER – II: 1MER02 COMPUTER APPLICATIONS   **3 Credits**

MATLAB Basics

Introduction, Environment, Variables, Arrays, Operations, Branching and program design, Script and functions, Files, Simple plotting.

MS Office and its application

File handing in window, Various versions of MS Office, MS-Word: Text formatting, Mail merge, Macros, MS-Excel: Features, Various formulas and functions, MS Power Point: Creating presentations and adding effects.

Study of Simulation and Data Analysis Tools

ProE, ANSYS, IDEA, SPSS, NS-2, Qualnet, NCTUNS, Cadence, Xilings, Tanner, CLEMENTINE etc.

Note: Study of any one tool from the above mentioned list in the relevant area is compulsory.

References

[1] Microsoft Office Word 2007: Complete Concepts and Techniques by Gary B. Shelly, Thomas J. Cashman, Misty E. Vermaat, Cengage Learning Inc.
[2] How to Do Everything with Microsoft Office Excel 2007 by Guy Hart-Davis, McGraw Hill.
[3] Learning Microsoft PowerPoint 2007 by Catherine Skintik, Pearson Education.
[4] Programming in MATLAB for Engineers, Stephen J. Chapman, Cengage Learning.
[5] MATLAB Web Site – http://www.mathworks.com