



“Techno – Social Excellence”  
MarathwadaMitraMandal’s  
**INSTITUTE OF TECHNOLOGY (MMIT)**  
Lohgaon, Pune-411047.

“Mechanized Design Application”  
**Department of Mechanical Engineering**

**Course Name: Numerical Methods & Optimization Class: TE Mechanical Engineering**  
**Course Code: 302047 (2015Pattern)**

**Course Objectives:**

Students are expected to –

1. Recognize the difference between analytical and Numerical Methods.
2. Effectively use Numerical Techniques for solving complex Mechanical engineering Problems.
3. Prepare base for understanding engineering analysis software.
4. Develop logical sequencing for solution procedure and skills in soft computing.
5. Optimize the solution for different real life problems with available constraints.
6. Build the foundation for engineering research.

**Course Outcomes:**

- CO1- Use appropriate Numerical Methods to solve complex mechanical engineering problems.
- CO2 - Formulate algorithms and programming.
- CO3 - Use Mathematical Solver.
- CO4 - Generate Solutions for real life problem using optimization techniques.
- CO5 - Analyze the research problem
- CO6 - To develop logical skills

