|  |
| --- |
| MA305 Optimization Techniques 3-0-0-6 |
| *Syllabus*   |  | | --- | | *Linear programming problem*: Formulation and geometric ideas, simplex algorithm, duality, transportation and assignment problem, integer programming problem;  *Nonlinear Optimization:* method of Lagrange multipliers, Karush-Kuhn-Tucker theory, numerical methods for nonlinear optimization;  Convex optimization and quadratic programming;  Applications of linear, integer and quadratic programming to various areas of science and engineering. | |
| *Texts:*   * + - 1. D. G. Luenberger and Y. Ye, Linear and Nonlinear Programming, 3rd Ed., Springer, India, 2008.       2. S. Chandra, Jayadeva, and A. Mehra, Numerical Optimizations with Applications, Narosa Publication House, India, 2009. |
| *References:*  1. John J. Jarvis, Mokhtar S. Bazaraa, Hanif D. Sherali, Linear Programming and Network Flows, 4th Edition, John Wiley & Sons, 2010.  2. Hamdy A. Taha. Operation Research: An Introduction, 9th Edition, Prentice Hall, 2011.  3. D. G. Luenberger and Y. Ye, Linear and Nonlinear Programming, 3rd Edition, Springer, 2008. |