

Prof Incharge: Prof.Gopal Srinivasan, IITB

Relevant Topic: Laplace Transforms

Relevant Course: Engineering Mathematics

Relevant Department: Engineering Mathematics

Relevant Semester:

Pre- requisite: Ordinary Differential Equations, Calculus

Course Description and Outline: Laplace transforms play an important role in the solution of differential equations. In this course we shall introduce

the basic concepts in the theory.

- 1) The class of functions of exponential type.
- 2) Examples of Laplace transforms.
- 3) Properties related to differentiation and multiplication.
- 4) Shifting theorems
- 5) Laplace transforms of periodic functions and some applications.
- 6) solutions of IVP for ordinary differential equations
- 7) Integro-differential equations
- 8) Partial differential equations.

Finalized topic name: Fundamentals of Laplace transforms.