



SOCIETY OF ST. FRANCIS XAVIER, PILAR'S

**FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING**

(Approved by AICTE & Affiliated to University of Mumbai)

Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai - 400 050.

Phone : (022) 6711 4000, 6711 4101, 6711 4104

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## Artificial Intelligence and Data Science

(Academic Year: 2023-2024)

Course Code: CSC301 (T)

Course Name: Engineering Mathematics III

Course Teacher: Prof Prasad Lalit

<b>Course Outcomes (CO): <i>At the End of the course students will be able to</i></b>	
CO.1	Evaluate the Laplace Transform of a given piecewise continuous function
CO.2	Evaluate the inverse Laplace Transform of a given bounded function
CO.3	Expand the given periodic function as a Fourier series
CO.4	Apply complex variable theory in finding the orthogonal trajectory of the given family of curves
CO.5	Apply the concept of Correlation and Regression to engineering problems in data science, machine learning, and AI.
CO.6	Apply the concepts of probability and expectation for getting the spread of the data and distribution of probabilities.



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### Tutorial Plan

Sr. No	EXPERIMENT DETAILS	CO	Proposed Date	Actual Date	Remarks
1	Laplace Transform	CO1	31/07/2023	31-07-23	
2	Inverse Laplace Transform	CO2	21/08/2023	21-08-23	
3	Fourier Series	CO3	04/09/2023	04-09-23	
4	Complex Variable	CO4	11/09/2023	11-9-23	
5	Statistical Techniques: Correlation, Regression, and Curve Fitting	CO5	18/09/2023	18-9-23	
6	Probability	CO6	25/09/2023	25-9-23	

Course Instructor: Prof Prasad Lalit