



# Introduction to Numerical Methods using MATLAB

## Name of the PMRF student

Soumyadeep Chowdhury

## Required background of the students taught

Any discipline of Science or Engineering  
with basic knowledge of Mathematics

## Details of the content of the module

Module 1 : Basic Introduction about the need for Numerical Methods, Error analysis, Taylor's Series Approximations

Module 2 : Solving Linear Equations using Numerical Methods

Module 3 : Geometrical Interpretation of Linear Equations and Matrix Approach of Solving them

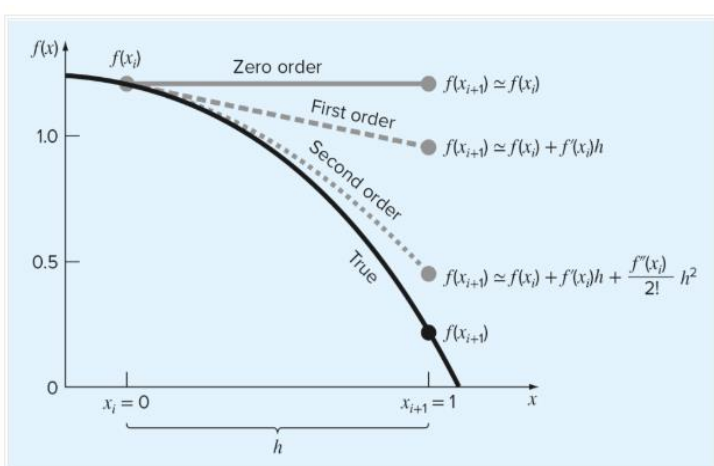
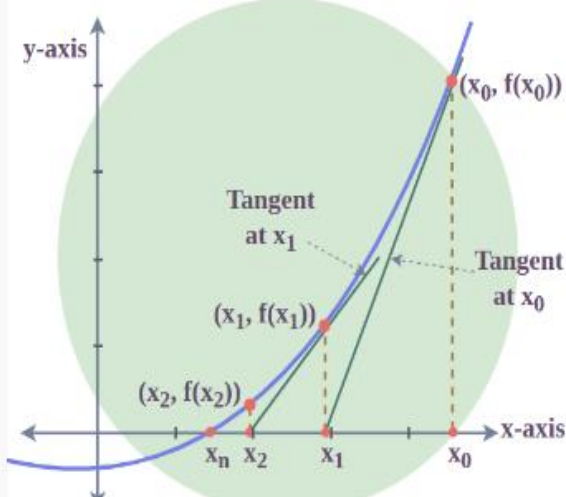
Module 4 : Root finding techniques for non-linear equations

Module 5 : Regression Analysis and Interpolation using Curve Fitting Tool in MATLAB

Module 6 : Numerical Differentiation and Numerical Integration

Module 7 : Solving Ordinary Differential Equations : Runge Kutta Method , Predictor Corrector Method etc.

**Live Sessions will be taken and each module will be accompanied with relevant MATLAB coding and analysis.**



## Schedule of the module

Start Date : 8th November 2024

End Date : 31st January 2025 (Tentative)

Timing : Every Friday (6:30pm-8:30pm), Total 13 live sessions of 2 hours each

Meeting link : Will be shared later

[Link](#)

Contact email ID: [issforum@gmail.com](mailto:issforum@gmail.com)

Registration link:  
<https://forms.gle/fB8e7aZVoJ7iPKEA6>