

## <u>AGENDA</u>

## Session on MATLAB fundamentals and Data Analysis using MATLAB.

- o Learn the basics of MATLAB
- Syntax, array indexing and manipulation, data types, operators
- o Import and export data, including large files; preprocess data, visualize and explore
- o Linear algebra, differentiation and integrals, Fourier transforms, and other mathematics
- Two- and three-dimensional plots
- Scripts and functions
- Descriptive statistics & visualization
- Analysis of variance and covariance
- Linear, generalized linear, nonlinear, and nonparametric techniques for supervised learning
- Supervised and semi-supervised learning algorithms for binary and multiclass problems
- Analyze out-of-memory data
- Develop apps interactively using App Designer, or programmatically using MATLAB functions