



Wolfram Technology Seminar & Hands-On Workshop



Wolfram Research Inc., USA and G.T. Enterprises, Bengaluru in association with Department of Mathematics, Sathyabama University, Chennai, Tamil Nadu welcome you to join us to explore how computation can empower your organization in Research, Development, Deployment & Progress.

Wolfram is one of the world's expert in computation with technologies such as Wolfram|Alpha (powering knowledge in Apple's Siri), the Wolfram Cloud, the Computable Document Format, Mathematica and the core of them all "The Wolfram Language".

Agenda

Overview of Mathematica

Hands-On Session based on the following topics:

Basic Operations:

Syntax, Numeric & Symbolic Examples, Basic plotting, Manipulate examples, etc..

Basic Computing with Mathematica:

Solving Equations, Linear Algebra, Curve Fitting, Optimization etc..

Visualization with Mathematica:

Visualizing Functions & Data, 2D & 3D Plots, Contour & Parametric Plots, Customizing Plots, etc.

Data Manipulation & Analysis:

Importing & Exporting, Data Visualization, Statistics, Machine Learning.

Equation Solving (Analytical & Numerical):

Linear Equations, Non-linear Equations, Transcendental Equations, Solving within Domains, Simultaneous Equations.

Differential Equations (Analytical & Numerical):

Linear, Non-linear, Delay, Piecewise, ODE, PDE, Integral Equations.

Signal Processing:

Convolution, Digital & Analog Filters, Window Functions, Discrete Transforms, Wavelet Transforms.

Image Processing:

Creating & Importing Images, Image Properties, Image Manipulation, Geometric Operations on Images, Morphological Processing, Filtering & Neighborhood Processing, Feature Detection, Segmentation Analysis.

Control Systems:

Transfer Function & State-Space Models, Time Delay Systems, Model Connections, Model Simulations, Classical Design - RootLocus, Bode, Nyquist, PID etc., State Space Design - StateFeedback, LQR, Estimators etc., Matrix Solvers, Non-linear Systems.

Instructors

☞ **Dr. Aravind Hanasoge**

Consultant at Wolfram, USA

PhD. specializing in Dynamics & Control
Wolfram certified instructor

☞ **Mr. Darshan P**

Sr. Pre Sales Engineer, G.T. Enterprises

Bachelor of Engineering, Information Science
Wolfram certified instructor

Special Attention

Workshop will consist of lab exercises. All are requested to bring their own compatible laptop.

For System Specification visit:

<https://www.wolfram.com/mathematica/system-requirements.html>

Who should attend

Faculty members and Research scholars interested in developing with and deploying Wolfram Technologies-regardless of their field, experience level or familiarity with Wolfram Technologies.

Venue and Date

DATE : 07th - 08th December 2017

VENUE : Computer Science Department 1st Floor Lab

PLACE : Sathyabama University, Chennai, TN.

TIME : 08:30 AM - 03:00 PM

Contact Details

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