

# WOLFRAM MATHEMATICA

The world's definitive system for modern technical computing



## About

Computation meets knowledge — For three decades, Wolfram Mathematica has defined the state of the art in technical computing and provided the principal computation environment for millions of innovators, educators, students, and others around the world. Widely admired for both its technical prowess and elegant ease of use, Mathematica provides a single integrated, continually expanding system that covers the breadth and depth of technical computing and with Mathematica Online, it is now seamlessly available in the cloud through any web browser, as well as natively on all modern desktop system.

Mathematica has nearly 6,000+ built-in functions covering all areas of technical domains — all carefully integrated so they work perfectly together. It excels across all areas of technical computing which includes Symbolic and Numeric computation, Image & Signal Processing, Graphs & Networks, Machine Learning & Neural Networks, Control System Design, Cryptography, Tensor Algebra, 3D Printing & Geometry, Mathematical modelling, Parallel & GPU computing, Scientific document publishing, Knowledge based expansion, Theorem Proving and much more. Superfunctions, meta-algorithms— Mathematica provides a progressively higher-level environment in which as much as possible is automated so you can work as efficiently as possible.

Get started with almost any project with help from 150,000+ examples in the Documentation Center, over 10,000 open-code [Demonstrations](#) in the Wolfram Demonstrations Project—and a host of other resources. Mathematica has access to the vast Wolfram Knowledgebase, which includes up-to-the-minute real-world data across thousands of domains. Mathematica is built to be connected to everything: file formats (180+), other languages, Wolfram Data Drop, APIs, databases, programs, the Internet of Things, devices—and even distributed instances of itself.

## Beneficial

The goal of the session is to introduce Mathematica to the audience through not only talks but also using Mathematica as a platform. The approach will nudge the users into realm of Mathematica computation and application. At the end of this session participants will have an understanding of functional programming, symbolic and numeric computation, cost of simulation, understanding the difference between good and bad codes, parallel computation, controlling codes for desired outputs and 2D/3D dynamic visualization. Faculty/Researchers/Students who are new to computation with existing mathematica users.

**Mr. Mahendra Singh Bisht**  
**Wolfram Certified Instructor**

## **Program Schedule**

**A Quick Overview of Wolfram**

**Mathematica Notebook Interface**

**Wolfram Alpha**

**What's new in version 13?**

**How to access Delhi University Mathematica site facility?**

**Computing with Mathematica-Overview** (Functional Programming)

**Computing with Mathematica** (Numeric & Symbolic Computation)

**Visualisation, Graphics & dynamic interactions**

**Programming and Development**

**Parallel Computations**

**Working with Documents**

**Wolfram Resource**

**Q&A**