



NRUPATHUNGA UNIVERSITY

(FORMERLY GOVERNMENT SCIENCE COLLEGE Autonomous)

Nrupathunga Road, Bengaluru – 560 001

**DEPARTMENT OF UG, PG STUDIES & RESEARCH IN
MATHEMATICS**

Organizes One day Workshop on

“Mathematica”

for Education & Research

In Association with G T Enterprises and Wolfram

Resource Persons

Dr Arvind Hanasoge BE, MS, PhD

Wolfram Technology Group

&

Mr Pradeep R. BE, MS

G T Enterprises, Bengaluru, India

Date: 30th Nov 2021

Time: 10.00am

Venue: Lab 1, Department of Mathematics

Convener

Dr. R. Sumithra,

Head of the Department

Organizing Secretary

Dr T G Sudha

Associate Professor

Department of UG, PG Studies & Research in Mathematics

Nrupathunga University, Bengaluru

All are Welcome

Nrupathunga* *University*

Formerly Government Science College Autonomous Bengaluru, Karnataka

Department of Mathematics

Organizes

A Workshop

on

Mathematica

For Education and Research

At 10am in the Laboratory 1

Department of Mathematics

On 30th November 2021

All are welcome

Please do get your laptops for installation of trial pack of Mathematica Latest version

Mathematica for Education & Research

Hands-on Workshop

Workshop Outline:

- **What You Can Do with Mathematica**
A brief overview of what you can compute, demonstrate, develop and deploy using Mathematica.
- **Syntax and Evaluation**
How to get started with your first calculations; the basics of Mathematica syntax, functions and evaluations; making assignments; defining functions.
- **The Notebook Interface**
Information about working with notebooks and interface technologies like the Input Assistant, the Image Assistant and palettes.
- **Programming with Mathematica**
Introduction to essential operations, including procedural programming, functional programming, pattern matching and rules, parallelization and GPU programming.
- **Visualization and Interactivity in Mathematica**
Examples of two- and three-dimensional plotting functions, data visualization, charting, graphs, statistical visualization, visualization options, the Manipulate function and authoring with the Computable Document Format.
- **Mathematics and Statistics**
Information about numbers and precision in the Mathematica, algebraic manipulation, equation solving, calculus functions, symbolic calculation, numerical computation, ODE, PDE etc. interpolation and data fitting, probability and statistics.

Please note that the above topics are intended to be covered depending on time availability.