



**Institute of Mathematics and Management, Sri Lanka**

## **SHORT COURSE ON INDUSTRIAL MATHEMATICS**

### **Intake I**

#### **Introduction**

This course is a foundation to develop mathematical and computing skills related to the fields of,; Physical Science; Biological Science; Engineering; Medicine & Healthcare; Management; Economics; Finance, Social Sciences and more. Each topic is viewed in theoretical and practical aspect with the help of MATLAB software and programming.

**Who would benefit: Undergraduates/ Postgraduates, Teachers, Lecturers, Researchers, Economists etc.**

**Course Duration: 30 hours**

**Medium of Instructions: English Mode of Conduct: Online (Zoom)**

**Course Fee: Domestic Students - LKR 18,000, International Students - USD 200**

**Course Commences: 09 March 2021 (Lectures on Tuesday and Thursday 18:00- 20.30 Indian Standard Time-IST)**

#### **Course Outline**

- Functions & Graphs
- Equations and Inequalities
- Getting started with MATLAB
- Solving equations by MATLAB
- Differentiation
- Integration
- Partial Differentiation
- Optimization
- Differential Equations
- Solving ordinary differential equations using MATLAB
- Mathematical Modeling
- Foundation Statistics

#### **Resource Persons:**

Dr. (Mrs.) W. G. Samanthi Konarasinghe (*PhD, MSc, MBA, PG Dip, BSc, MASA, MIASSL, MNSF*), Sri Lanka

Prof. Dr. K. Srinivasa Rao (*PhD, MPhil, MSc, PG Dip, BSc*), India

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