

INDIAN INSTITUTE OF TECHNOLOGY INDORE

DEPARTMENT OF MATHEMATICS

organizes

First Workshop

on

Hands-on Training using MATLAB

October 06, 2022

Venue: Bhaskaracharya Mathematics Laboratory (funded by DST-FIST), IIT Indore

ABOUT IIT INDORE

Indian Institute of Technology Indore, located in Madhya Pradesh, known as IIT Indore, is an institute of national importance established by the Government of India in 2009. Recently, IIT Indore debuted with a rank of 201-250 in the Times Higher Education World University Rankings 2022, 2nd among Indian institutes in Computer Science. The department of mathematics at IIT Indore had started in July 2009. The faculty members of the department are well equipped to conduct high-quality research in both pure and applied mathematics, and are also engaged in interdisciplinary research activities. The department is actively engaged in organizing various research activities.

For more details, please visit: math.iiti.ac.in/.

COURSE OVERVIEW

Programming with MATLAB is an efficient tool for implementing numerical techniques in solving problems arising in various fields of science and engineering. This involves designing methods that give approximate but accurate numeric results, which is useful in cases where the exact solution is prohibitively expensive or impossible to obtain/compute. This workshop will introduce participants to the basic introduction of MATLAB, concepts, methods and tools for implementation of numerical methods using MATLAB.

ELIGIBLE APPLICANTS: All UG/PG/PhD students

- This is a series of workshops with maximum 25 students in each batch.
- Selection procedure will be followed on a first-come, first-served basis.
- The first workshop of this series will be held on 6th October 2022.

REGISTRATION FEE:

- ❖ Registration fee to attend the workshop is ₹500 which includes GST, lunch and tea.
 - For Online Payment: <http://www.iiti.ac.in/page/e-payments>
 - Bank Transfer: Beneficiary Name: Registrar IIT Indore; Bank Name: Canara bank; A/C: 1476101027440; IFSC: CNRB0006223; Branch: IIT Indore, Khandwa Road, Simrol, Indore.
 - Transfer details need to be uploaded at the time to online application through the given link on or before **October 05, 2022**.
- ❖ For any queries, please contact santanu@iiti.ac.in (Dr. S. Manna) or keshab.bapan@iiti.ac.in (Dr. B. Ghosh).

COURSE FACULTY

- **Dr. Santanu Manna (IIT Indore)**
- **Dr. Bapan Ghosh (IIT Indore)**

COURSE MODULE

This is an active learning-training based workshop that comprises of lectures, and tutorials.

MODULE-1: Introduction to MATLAB, basic inbuilt tools, and coding in command window

MODULE-2: Implementation of matrices, determinants and linear system of equations, eigenvalues and eigenvectors

MODULE-3: Numerical integrations

MODULE-4: Numerical solution to differential equations

ONLINE REGISTRATION LINK:

<https://forms.gle/J3tAdcWTSwAwSkHv9>

REGISTRATION DEADLINE:

October 05, 2022 by 11:00 AM

DATE OF THE WORKSHOP:

October 06, 2022, From 10:30 AM to 17:00 PM

VENUE: Bhaskaracharya Mathematics Laboratory,
Funded by DST-FIST, Govt. of India,
Room 210, POD-1A,
Department of Mathematics,
IIT Indore

COURSE ORGANIZERS:

Dr. Niraj Kumar Shukla
Dr. Santanu Manna
Dr. Bapan Ghosh
Dr. Vinay Kumar Gupta

CERTIFICATE:

Participants completing the course successfully will be awarded certificate.