#### About the Institute

Information Institute Indian of Technology, Kottayam is one among the IIITs that have been established as "Institutions of National Importance" by Ministry of Education, Govt. of India under the ambit of IIIT (PPP) Act 2017. The institute offers 4 year B.Tech and B.Tech(Hons) program with specialized courses covering all major research domains of Computer Science and Communication Electronics and Engineering. The students are admitted against the JoSAA/CSAB counselling against the JEE main rank list. Institute also offers MTech in CSE and PhD program in CSE, ECE and Mathematics.



## About the Workshop

MATLAB is a special purpose language that is an excellent choice for writing powerful programs in a few lines that solve real world problems. As a result, MATLAB is being used in a wide variety of domains from the basic sciences, through all disciplines of engineering, to finance, and beyond, and it is widely used in industry. Hence, a solid background in MATLAB is an indispensable skill in today's job market.

This hands-on program is intended to provide fundamental knowledge of MATLAB, including toolboxes, graphical representations, and tips for developing and implementing MATLAB code to address issues in a variety of domains. The MATLAB GUI, which allows users to utilize a specific application without having to learn the language, as well as Simulink, which allows users to add algorithms into models and export simulation results to MATLAB for further analysis, will also be covered.

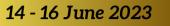
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www.iiitkottayam.ac.in

http://i2cs.iiitkottayam.ac.in

# **3-Day Hands-on Workshop on**

**Engineering and Scientific Computations using MATLAB** 





ORGANIZED BY Department of ECE jointly with I<sup>2</sup>CS Research Group





Intelligent Integrated Circuits and Systems Research Group

#### **Patrons**

Prof. Rajiv Dharaskar, Director, IIITK Dr. M Radhakrishnan, Registrar, IIITK Prof. P Mohanan, PIC Academics, IIITK

#### **Program Convenor**

Dr. Kala S Assistant Professor & Head Department of ECE IIIT Kottayam

#### **Program Co-ordinators**

Dr. Minu A Pillai Assistant Professor, Dept of ECE, IIITK

Dr. G N K Reddy Assistant Professor, Dept of ECE, IIITK

## About the Department

Department of ECE offers both BTech and BTech (Hons) degree, with courses covering wide domain of Electronics Circuits, VLSI & Embedded Systems, Signal Processing, Communication Systems, Antnna Design, Microwave Engineering, Instrumentation, Artificial Intelligence and Machine Learning. The department also offers PhD program in these domains. The department has a vibrant faculty community who are involved in the cutting edge research activities through I<sup>2</sup>CS Research Group.

## **Resource Persons**

Dr. D D Ebenezer Chairman, Hydro-Vibro-Acoustics Panel, Naval Research Board DRDO, New Delhi

Dr. A Ananth Assistant Professor, Dept of ECE, IIITK

Dr. G N K Reddy Assistant Professor, Dept of ECE, IIITK

Dr. Minu A Pillai Assistant Professor, Dept of ECE, IIITK

## Registration

Registration Link: <u>https://forms.gle/tYYXNgm3oHaQgVGX9</u>

UG/PG /PhD Scholars: Rs.750/-Faculty Members: Rs. 1000/-

Payment link:

https://www.onlinesbi.sbi/sbicollect/icollectho me.htm

*S*teps for payment:

- 1. Select category as Educational Institutions
- 2. Search for payee "IIIT Kottayam"
- 3. Choose the payment category "Matlab for Engineers"
- 4. Enter the details and make payment

Registration deadline: 13 June 2023

Accommodation: Provided upon request via email, first-come first-served basis E-mail:minupillai@iiitkottayam.ac.in

## **Contents of the Workshop**

The majority of engineers and scientists in various fields are relying on numerous math functions and computations. This workshop aims to teach learners with little to no programming experience, regardless of major or field of study, how to write MATLAB programmes that address realworld issues.

#### **Topics covered:**

- Overview of the key features of the MATLAB programming environment
- Basic syntax, Commands and Operations
- Looping and decision making
- Effective use of MATLAB to analyze and visualize data and results 2D & 3D plots
- Basic optimization procedure
- Use of Simulink for modeling dynamic physical systems in diverse disciplines
- Effective creation and use of the MATLAB GUI

## **Organizing Team**

Dr. Ananth A Dr. Della Thomas Dr. Milind Thomas Dr. Rajesh G Dr. Santhos Kumar Dr. Venkatesh S Mr. M. Jaswanth Kumar