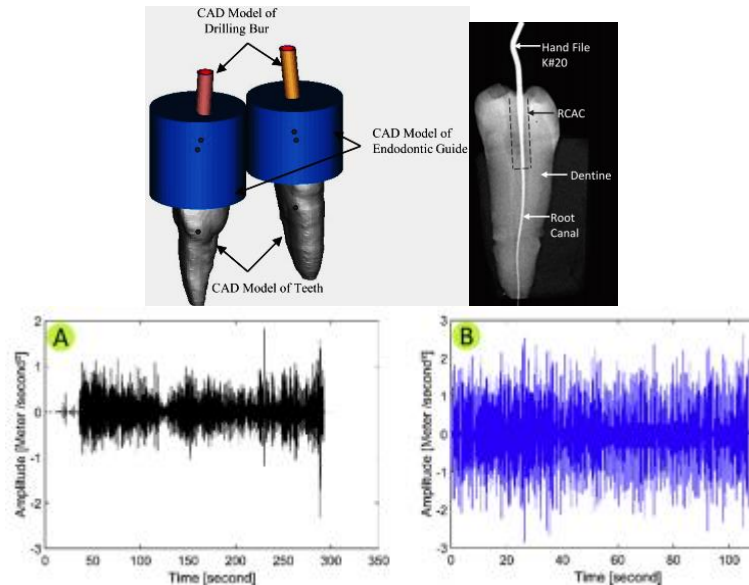


TEQIP-III Sponsored Short Term Course on  
**Programming for Research Applications using  
MATLAB**  
(June 29-July 01, 2019)



**Course Coordinator**  
**Dr. Pavan Kumar Kankar**



**Discipline of Mechanical Engineering**  
**INDIAN INSTITUTE OF TECHNOLOGY INDORE**

### About this Course

Programming knowledge has become very essential for professionals and researchers to develop simulation models, signal processing, performing analysis, optimization & decision making. Many times, data exchange between different software packages has become necessity to utilize expertise of different software packages and requires a neutral software tool like MATLAB to take the input from software, perform computations and output the results to another software package. MATLAB is excellent tool for visualization and manipulation of engineering data as well as performing various engineering computations. MATLAB can be effectively used in many research applications like vibrations, biomedical signal/image processing, CAD, etc. It also provides various toolboxes to perform specialized computations.

Course will be beneficial to beginners as well as practitioners of different domain. Teaching methodology will be adopted in such a manner that all can cope up even those who do not possess any prior knowledge of computational methods and programming. Case studies of advanced application of MATLAB will be presented by highly motivated researchers/faculty and they will also demonstrate applications of computational methods through their recent research works.

### COURSE CONTENTS:

The **lectures** will cover following topics:

- Programming basics in MATLAB
- 2D/3D Plotting visualization Using MATLAB
- Data input/output in various format
- Frequency and Time-frequency analysis of biomedical signals
- Fault Diagnosis of Mechanical components
- Vibration analysis and signal processing with MATLAB
- Applications in computer aided design

### WHO SHOULD ATTEND?

The program is open to faculty, research scholars and students from all the colleges and universities. Industry personnel working in the concerned/allied discipline may also apply.

**REGISTRATION FEE:**

There will not be any registration fees, accommodation, food charges for TEQIP participants but they shall take care of travel expenses. All TEQIP participants must be nominated by their parent institute. Following registration fee will be applicable for Non-TEQIP participants:

Rs. 12,000\* (for industry personnel)

Rs. 10,000\* (for faculty members)

Rs. 5,000\* (for students)

\*Including service tax @ 18%

The course fee includes study material, breakfast, lunch, and tea for the entire course duration.

**MODE OF PAYMENT:** Through demand draft drawn in favor of Registrar, IIT Indore or through online payment/ bank transfer.

For Online payment/ Bank Transfer

Bank Name: Canara bank

Branch: IIT Indore, Khandwa Road, Simrol, Indore

Account number: 1476101027440

IFS Code: CNRB0006223

**ACCOMMODATION:** Accommodation can be arranged, if required, in hostel@ Rs.250 per day subject to the availability. Limited seats are available. Participants will be selected on first-come-first serve basis. Please send request for hostel accommodation to the course coordinator.

**NUMBER OF SEATS:** Limited

**IMPORTANT DATES:**

The soft copy of completely filled registration form (along with the DD/ Online payment slip for the course fee) should be sent to the following e-mail ID on or before **15 June 2019**.

**Address for correspondence**

**Dr. Pavan Kumar Kankar, Associate Professor**

Mechanical Engineering Discipline

**Indian Institute of Technology Indore**

**Khandwa Road, Simrol, Indore, MP.**

**E-mail:** pkankar@iiti.ac.in

**Phone:** 07324306517(O); 09425807612(M)

**REGISTRATION FORM**

**Name :**

**Designation:**

**Discipline/Department:**

**Institution/Organization:**

**Address:**

**E-mail id:**

**Gender:**

**Phone/Mobile No.:**

**Accommodation Required: Yes / No**

**Payment details**

Cheque / Demand Draft no. \_\_\_\_\_ dated\_\_\_\_\_

bank\_\_\_\_\_amount in Rs. \_\_\_\_\_ drawn at\_\_\_\_\_

**Signature of the applicant with date**

**Signature with seal of  
Nominating Authority (for TEQIP participants)**