



Organizing Committee

Convener:

Sandip Banerjee

Resource Persons:

Prof. Sandip Banerjee (Department of Mathematics, IIT Roorkee)

Prof. Ajay Vasan (Department of Physics, IIT Roorkee)

Prof. Puneet Jain (Department of Physics, IIT Roorkee)

How to Apply:

Applicants should be from TEQIP approved colleges and are requested to apply at mataid2019@gmail.com along with their CV. Accommodation and local hospitality of the participants will be provided by the host institute. TA and DA of the participants will be borne by their parent institute. Last date for submission of applicants is 30.04.2019. Applicants will be informed by 03.05.2019.

Outline of the proposed program:

Teaching of Engineering Mathematics can be made simplified to students by graphical illustrations and computational tools. In this direction, it is proposed to organize a five days workshop on Mathematica software for the faculty of Technical Institutes as a tool for "teaching and learning". It is planned to introduce the nuances of the Mathematica software which has computational power with convenient user interface. Basic ideas on symbolic and numerical computation, 2D and 3D data visualization and programming environment on various topics of Mathematics that are necessary for the Engineering students will be covered to the participating faculties in this workshop. Interactive course materials and practical training on the software will be provided to enable the participating faculty to use this software as a teaching tool.

Topics to be covered:

- Basics of Mathematica, Functions.
- Matrix operation (including eigenvalues and eigenvectors).
- Curves and Surfaces plot.
- Differentiation, Partial Differentiation.
- Integration (including double and triple).
- Series solution.
- Difference Equations, Differential equations (ordinary, partial, delay, stochastic) and its visualization.
- Maxima-Minima.
- LPP.
- Probability distribution and much more.

5 days workshop on **MATHEMATICA** as a teaching aid

June 10-14, 2019.



Organized by

Department of Mathematics,
Indian Institute of Technology Roorkee.

Sponsored by

TEQIP III

MATHEMATICA AS A TEACHING AID

June 10 (Monday) – June 14 (Thursday), 2019

organized by:

**Department of Mathematics, IIT Roorkee,
Roorkee – 247667, Uttrakhand.**

APPLICATION FORM

(E-mail scanned copy (or snapshot) of filled form to **mataid2019@gmail.com** latest by April 30, 2019)

1. Name: Ms./Mr./Dr.
2. Designation:
3. Age (Years):
4. Official mailing address: (Including name of the Department, Institute, State and Pin code)

5. (a) E-mail:
- (b) Mobile No.:
6. Academic Qualification (degree onwards):
7. Teaching/ working Experience in Years:
8. Subjects teaching/taught related to this Course:

Date:

Signature of applicant

SPONSORSHIP CERTIFICATE

The applicant will be permitted to participate in the above program, if selected. Further, I have personally talked to the applicant and he/she seemed to be sure to attend the course, in case the admission is offered to him/her.

This is to certify that this university/institute/college is participating in TEQIP III programme.

Date:

Signature (Principal/Director/Head)

Seal of the Univ./Institute/Dept./Organization