

Boarding and lodging

Boarding and lodging facilities for the selected AICTE institute candidates will be provided at institute hostels/guest house. Due to the shortage of space, no dependents or guests are allowed.

Application procedure and important dates

The last date for submission of the online application is February 28, 2020.

The interested applicants must submit scanned copies of the duly filled [Registration form](#) (given below) to the course coordinators, along with the [proof of payment](#) by the above deadline.

Registration fees and Mode of Payment

Eligibility: The course is open to teachers of Engineering colleges and polytechnics. The fee structure is given below:

AICTE approved institutes: There are no registration fees for participants from these institutes.

non-AICTE colleges: The fee is ₹ 7000/- for eligible faculty/researchers.

Industries: The fee is ₹ 15000/- for eligible personnels.

By NEFT: Registration fee can be paid through NEFT. Details will be shared with the shortlisted candidates.

Important notes

- **Financial assistance:** Only a limited number of participants from AICTE recognized institutions will be eligible for AC III tier railway fare via the shortest route from their place of work. As per availability, participants will also be provided with free lodging/boarding. TA/DA will only be paid if the candidates attend the entire course.
- A caution deposit of ₹ 1500/- will be collected from Prospective participants before sending them the final invitation letter. The caution deposit will be returned back to the participants along with TA/DA (if applicable) on the last day of the course.
- Participants MUST attend the program in Full.
- Due to the nature of the course, the participants are required to bring their own laptops.

QIP SHORT COURSE

Mathematical techniques for engineers with hands-on computer illustrations

MARCH 16-20,2020



Organized by

**Discipline of Physics, IIT Indore
Khandwa Road, Simrol-453552
Madhya Pradesh
India**

ABOUT IIT INDORE

Indian Institute of Technology Indore located in Madhya Pradesh, known as IIT Indore or IITI, is an institute of national importance established by the Government of India in 2009. It is one of the eight 2nd generation IITs, started by the Ministry of Human Resource Development, Government of India. The institution started functioning from 2009-10 in a temporary campus at Institute of Engineering and Technology of Devi Ahilyabai University under mentorship of IIT Bombay. Shri Arjun Singh, the Union HRD minister, laid the foundation of the permanent campus, spread over an area of around 501.42-acre (2.1 km²), on February 17, 2009 at Simrol, a location on Khandwa Road about 25 km from the city of Indore. Since, February 2016, IIT Indore has started functioning from its permanent campus.

Getting here

From Devi Ahilyabai Holkar Airport (IDR): Devi Ahilyabai Holkar Airport (IDR) is a prominent airport in the Madhya Pradesh state of India and is about 8 km from the Indore city. The distance between IITI and IDR is about 30 Km and you can take a taxi which costs around ₹ 800/-.

From Indore Jn. Railway station: From Railway Station, you can hire a Taxi (fare is approx. ₹ 500/-). Distance is approx. 24 km from the Railway Station.

Contact

For any questions, you can reach us at qipphysics@gmail.com

[Course instructors: Dr. Debajyoti Sarkar and Prof. Subhendu Rakshit](#)

Aim of the course

The proposed course will cover carefully chosen topics within mathematical methods that are directly applicable and essential for an engineer's curricula. The theoretical and technical parts of the course will be complemented by an illustrative hands-on application session, comprising of symbolic and numerical manipulation software such as Wolfram-Mathematica. This will aid the students with clear visualizations of technically intricate mathematical topics. This second aspect is always absent in a generic course on mathematical methods. This 'practical' part will build an elevated baseline for the 'problem-solving' aspects, from which the teachers will benefit both in and outside of their classrooms.

Topics to be covered

- Solutions of Differential equations: Frobenius Method, Sturm-Liouville Theory, Green's Function, Solution by Laplace Transformation, Numerical solutions by Chebyshev's method.
- Special Functions: Bessel, Legendre, Laguerre, Hermite.
- Complex Analysis: Contour Integrals, Conformal Mapping.
- How to use Mathematica? Introduction to symbolic computing Illustrations with Mathematica.

[A certificate will be provided to the participants upon successful completion of the entire course.](#)

INDIAN INSTITUTE OF TECHNOLOGY INDORE

Discipline of Physics

Organizes a 5-day short term course on

Mathematical techniques for engineers with hands-on computer illustrations

Sponsored by Quality Improvement Programme (QIP), AICTE

1.	Name of the Applicant (in block letters)	
2.	Designation	
3.	Academic Qualification	
4.	Name of the College / Institution	
5.	Address for Communication	
6.	Mobile	
7.	<u>E-mail</u>	
8.	Accommodation Required? Yes or No	

Signature of the Applicant (with Date):

Approval /Permission from the Institution/Organization:

We approve the above application as a participant for the above short term course, which is being organized by IIT Indore from March 16 to 20, 2020.

Signature of the Competent Authority (with Date and Seal)

Scanned copy of duly signed registration form should be sent to qipphysics@gmail.com by February 28, 2020.