

# University and PG College MSc Teachers' Training Program in Mathematics

16<sup>th</sup> June 2019 to 6<sup>th</sup> July 2019 (21 days)



Center of Excellence in Science and  
Mathematics Education

**Indian Institute of Science**

at its

Challakere Campus, Chitradurga  
under

Pandit Madan Mohan Malaviya National Mission  
on Teachers and Training  
(PMMMNTT, MHRD, Govt. of India)



The IISc at Challakere Campus offers a great opportunity for the university and PG college faculty teaching MSc mathematics. This is a three-week

(21 days) residential training program equivalent to UGC refresher course approved by the MHRD, Govt. of India

**Course Specialization: Analysis**

The main purpose of this training programme is learning mathematical analysis through problem solving. Adequate theory will be developed, but the focus will be on solving problems related to analysis.

Contact hours of the program will be more than 180 hrs.

- 80 hrs of lectures.
- 100 hrs of problem solving.

Lectures will be delivered by IISc and TIFR Faculty members. Probable faculty members:

- Prof. A K Nandakumaran, IISc.,
- Prof. Manjunath Krishnapur, IISc.,
- Prof. Harish Sheshadri, IISc.,
- Prof. P S Datti, (TIFRCAM)
- Prof. C R Pranesachar, (HBCSE, TIFR),
- Prof. B J Venkatachala, (HBCSE, TIFR),
- Prof. Kaushik Ramachandran, (TIFRCAM)

Training program consists essentially three broad topics:

### 1. *Real analysis*

Real numbers, basic topology, sequences and series, continuity and differentiability, Riemann and Lebesgue integrals, functions of several variables.

### 2. *Linear algebra*

Linear algebra and finite dimensional spectral theorem, normed linear spaces and its topology, Banach spaces, Hilbert spaces, operators on Hilbert spaces, spectral theorem.

### 3. *Complex Analysis*

Complex numbers and topology of complex plane, Complex functions, analytic functions, Power series, complex integrals, Cauchy's theorem, residue calculus, conformal mappings, Laurent series Infinite products, doubly periodic functions.

*Applications are invited from any Indian who teaches M.Sc. Mathematics. Those who have attended two UGC refresher courses earlier can apply. Contract and guest lecturers can also apply.*

No holiday/break in 21 days. Only one Sunday afternoon will be left free.

***Send your application in the prescribed format available in the TDC website [tdc.iisc.ac.in](http://tdc.iisc.ac.in)***

**Last date to receive application:  
May 15, 2019.**

Send your application to  
**Professor C. R. Praneshachar**

Coordinator, Mathematics

TDC, IISc Kudapura – 577536

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