

# Online Foundation Course in Mathematics (OFCM), 2021

An MTTS Online Training Programme

[Organized under the aegis of MTTS Trust]

# 20 September - 10 October, 2021

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Funded by the National Board for Higher Mathematics

## ABOUT THE PROGRAMME

The MTTS Trust brings to you six online regional camps on mathematical foundations for second year undergraduate students in Mathematics. As in OFCM-2020 held in October 2020, about five hundred students will be trained following the interactive MTTS methodology through these camps on online platforms.

The Mathematics Training and Talent Search (MTTS) programme is one of the most popular and significant training programmes in India. This programme has been running since 1993 and has made an impressive impact on mathematical scene in the country. Due to the unprecedented situation created by the pandemic, the MTTS Trust has been organizing all its programmes in online platform successfully without compromising the methodology and interactive nature of MTTS since May 2020. The success of this venture is evident from the student's efforts and feedback. The decision of MTTS Trust to organize more online camps is encouraged by this experience.

There will be six simultaneous regional camps each with an intake of about 80 participants. These camps will train hundreds of students drawn from all states of the country. These will be organized online on Zoom video conferencing platform.

#### BACKGROUND

"Foundation" is a unique course taught in MTTS summer camps to initiate the students to some most important fundamental topics in Mathematics.

After attending a 2-week course on Foundations in the MTTS camps, almost all participants so far have experienced a change in their attitude, problem solving abilities and logical and analytical thinking. They also acquire a high level of confidence for self-study to undertake courses in higher mathematics.

The objective of the regional camps is to transfer the positive changes that the Foundation course brings to MTTS participants, to many more students across the country.

# ELIGIBILITY AND APPLICATION PROCEDURE

#### **ELIGIBILITY:**

Undergraduate students, who have completed (or completing soon) the first year (two semesters) of their B.Sc./B.A. programme, with Mathematics as one of their main subjects.

#### APPLICATION PROCEDURE:

- See the details about online application at the programme webpage https://mtts.org.in/programme/ofcm2021.
- The teachers whose email id's are given in the online application needs to submit their recommendations online before the deadline.

Students from all regions and areas, including rural and remote ones, are encouraged to apply.

## SELECTION

The selection will be on merit, based on consistent good academic records and recommendations submitted by the teachers. The list of selected candidates will be posted on MTTS website along with instructions for confirmation of participation and further guidelines for registration, etc. Only selected candidates will be informed of their selection by email.

#### ACADEMIC PLAN

This will be a short course with Logic, Sets, Functions and Equivalence Relations as components based on the book "A Foundation Course in Mathematics" by Ajit Kumar, S. Kumaresan and B.K. Sarma.

In each camp, there will be four sessions each week, with three on alternate weekdays (Monday-Saturday), and one on Sunday. All sessions, except possibly on Sunday, will be in the afternoon. Each session will consist of an interactive lecture (75 minutes) followed by a group discussion (40 minutes).

The aim of the programme is to expose bright young students to the excitement of doing mathematics, to promote independent mathematical thinking and to prepare them for higher aspects of mathematics.

The faculty members will be active mathematicians from various leading institutions with a commitment to teaching. There will be sufficient number of Mentors in each camp to offer their help to students during group discussions. They are drawn from previous MTTS participants and experienced teachers and researchers who have the spirit and understanding of MTTS teaching methodology. The aim of the instruction is not to give routine lectures but to stimulate the participants to think and discover mathematical ideas and results on their own.

PROGRAMME DIRECTOR: Prof. S. Kumaresan, Hyderabad

#### IMPORTANT DATES

- Online application: 10 August, 2021 to 23 August, 2021.
- Last date for receiving recommendation (online) from teachers: 31 August, 2021.
- Publishing of lists of selected students: 09 Sept., 2021.
- Confirmation of participation by selected students: by 14 Sept., 2021.
- Programme dates: 20 Sept. 10 Oct., 2021.

All details can be found in the programme webpage at the MTTS website. In case of further assistance, one may write to mtts.ofcm2021@gmail.com.

#### ABOUT MTTS TRUST

MTTS-TRUST is a non-profit educational trust. The primary objective of the trust is to organize various activities including training programmes under the MTTS umbrella and any other training camps as deemed necessary or important for the country to keep its eminence in higher mathematics. You may contribute to MTTS in many ways. To know how, please visit our webpage <a href="https://mtts.org.in/donations/">https://mtts.org.in/donations/</a> or get in touch with us at <a href="mttstrust@gmail.com">mttstrust@gmail.com</a>. For more details on the MTTS Trust, visit <a href="https://mtts.org.in/mtts-trust">www.mtts.org.in/mtts-trust</a>