



# DEPARTMENT OF MATHEMATICS

## Mar Thoma College, Tiruvalla

Reaccredited with A Grade by NAAC (Fourth Cycle), All India 84th Rank in NIRF 2020

### INITIATION INTO LINEAR ALGEBRA

### Six Days International Online Workshop

**28 September 2020 to 3 October 2020**

**4:00pm to 5:30pm |  Google Meet**

#### About the Workshop

This workshop targets those who have completed at least two years of undergraduate studies in Mathematics or Statistics.

Linear Algebra itself is rich and beautiful in its content, contributing to all areas of Mathematics and to varied disciplines of scientific knowledge. For those who wish to, pursue higher mathematics; a deeper understanding of linear algebra is essential. Every second, world is driven by millions of decisions in various realms. Decision making is increasingly becoming data driven within the medical, commercial and the government sectors. Data driven decision making involves the analysis of large volumes of data to identify patterns and build predictive models.

Data science, Artificial Intelligence, and Machine Learning are some of the emerging branches of knowledge used in decision making and data management. Mathematics, especially Linear Algebra plays a significant role in these new subjects. The workshop aims to introduce the fundamentals of Linear Algebra in a concrete manner, to illustrate some standard theorems and then some applications of the subject.

The workshop will be held via google meet for the first 250 participants and it will be made available for the rest of the participants via YouTube live streaming. The links for the sessions will be mailed to the registered email ids before the sessions.

#### Mar Thoma College

Founded in 1952 by the Mar Thoma Church to provide education of the highest standard, to build character, to instil moral and spiritual values, to strive for promoting social justice and to attain fullness of life. The college, accredited by NAAC in 1998 is one of the first colleges to do so in India and was re-accredited with A grade in 2005, 2012 and 2019. The college has maintained its position among the first 100 colleges in NIRF ranking, successively for the past two years. The college aims to seek and cultivate new knowledge, promote research and develop professional competence in an atmosphere of academic freedom.

#### Department of Mathematics

Mathematics department is functioning from the inception of the college, Department offers B.Sc Mathematics from 1955 and M.Sc Mathematics from 1963 and became a research centre in 2008.

The Kerala Mathematical Association(KMA) is incepted from the department. Over the years department has produced a large number of qualified teachers, professionals, researchers and eminent personalities. In a short span of time department has produced 15 Ph.Ds and now about 15 scholars are pursuing research.

#### Topics and Speakers

28.09.2020 - Foundations of Linear Algebra



**Shinoj K.M**  
Assistant Professor  
St. Joseph's College,  
Devagiri, Calicut

29.09.2020 - Operators, Matrices and Eigenvalues



**Dr. Gayathri Varma**  
Former Visiting Research Fellow at  
ISI Delhi Centre

30.09.2020 - Spectral Theorem for Complex Normal Operators



**Dr. Sumesh K.**  
Assistant Professor,  
IIT Madras

01.10.2020 - Eigenspaces and generalized eigenspaces



**Dr. Tiju Cherian John**  
Postdoctoral Fellow  
ISI Delhi Center

02.10.2020 - Jordan Form of Operators



**Dr. Arundhathi Krishnan**  
Government of Ireland Postdoctoral Fellow  
School of Mathematical Sciences,  
University College, Cork, Ireland.

03.10.2020 - Beauty of Linear Algebra



**Dr. Gopinath Sahoo**  
Assistant Professor  
Bennett University, Greater Noida, U. P

#### Organising Committee:

**His Grace Most.Rev.Dr. Joseph Mar Thoma Metropolitan (Manager)**  
**Dr. Varughese Mathew ( Principal), Prof. Mini Thomas (Head of the Department)**  
**Prof. Rethesh R, Prof. Preetha Rachel George,**  
**Prof. Anu Ann James, Prof. Manesh Jacob (Convenor) [kochumon13@gmail.com](mailto:kochumon13@gmail.com)**

**To Apply : <https://forms.gle/5HbX2zXyXNqGhfCQ7>**

**Last Date of Application : 24/09/2020**