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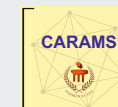
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**MANIPAL**  
ACADEMY of HIGHER EDUCATION  
(Deemed to be University under Section 3 of the UGC Act, 1956)



Centre for Advanced Research  
in  
Applied Mathematics and Statistics  
MAHE, Manipal

# International Conference on Linear Algebra and its Applications (ICLAA 2020)



December 17 - 19, 2020



Preconference Workshop on Special Matrices and Graphs  
December 10-16, 2020

Endorsed by



Centre for Advanced Research in  
Applied Mathematics and Statistics  
Level VI, Health Sciences Library Building  
Manipal Academy of Higher Education, Manipal  
Karnataka 576 104, India

Visit us at <http://carams.in/iclaa2020>

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## About the Conference

The present conference shall provide a platform for leading Mathematicians and Statisticians, working around the globe in the theme area to discuss several research issues and to introduce new innovations. The main goal of the conference is to bring experts, young researchers, and students together to present recent developments in this dynamic and important field. The conference also aims to stimulate research and support the interaction between the scientists by creating an environment for the participants to exchange ideas and to initiate collaborations and professional partnerships. ICLAA 2020 is in sequel to the conferences CMTGIM 2012, ICLAA 2014, and ICLAA 2017 held in Manipal during January 2012, December 2014, and December 2017 respectively.

- The theme of the conference shall focus on
- Classical Matrix Theory and Linear Algebra
  - Nonnegative Matrices and Special Matrices
  - Matrices and Graphs
  - Combinatorial Matrix Theory
  - Linear Statistical Inference
  - Matrix and Graph Methods in Statistics
  - Matrix and Graph Methods in Biological Sciences
  - Matrices in Error Analysis and its Applications

## Special Issue and Proceedings:

ELA-Electronic Journal of Linear Algebra will be publishing a special issue dedicated to the conference and in honour of Prof. C. R. Rao on his 100 year. The articles, not necessarily presented in the conference, but in the focus area of conference and ELA may be submitted online using the following link: <https://www.emis.de/journals/ELA/Home.html>. For more details regarding the special issue and proceedings, kindly visit our website.

## About MAHE, Manipal

Manipal Academy of Higher Education is synonymous with excellence in higher education. MAHE is one of India's leading academic and research institutions. It has been granted Institution of Eminence status by the Ministry of Human Resource Development, Government of India. Over 28,000 students from 57 different nations live, learn and play in the sprawling University town, nestled on a plateau in Udupi district of Karnataka. It also has nearly 2500 faculty and almost 10000 other support and service staff, who cater to the various professional institutions in Health Sciences, Engineering, Management, Communication and Humanities which dot the Wi-Fi-enabled campus. The University has off-campus in Mangalore and Bangalore, and off-shore campuses in Dubai (UAE) and Melaka (Malaysia). The Mangalore campus offers medical, dental, and nursing programs. The Bangalore Campus offers programs in Regenerative Medicine. The Dubai campus offers programs in Engineering, Management and Architecture, and the Melaka campus offers programs in Medicine and Dentistry. Every institute has world class facilities and pedagogy, which are constantly reviewed and upgraded to reflect the latest trends and developments in higher education.

For more details visit us <https://manipal.edu/>.

## About CARAMS

CARAMS has been established in September 2018 at MAHE with the objective of fostering advanced research and training in the area of Mathematics, Statistics and their applications. It facilitates to bridge the gap between Mathematicians/Statisticians and Applied Mathematicians working in the area of Health, Technological, and Social Sciences.

Visit <http://carams.in> for more details

## How to Register?

Enroll in our portal using the link <http://carams.in/registration> and then sign in 'My Page' for further registration, guidelines for online fee payment, uploading of personal information, title and abstract of talk, and any relevant information.

## Speakers

**Rafikul Alam**, Indian Institute of Technology, Guwahati  
**R. Balaji**, Indian Institute of Technology, Madras  
**N. Balakrishnan**, McMaster University, Canada  
**Ravindra B. Bapat**, Indian Statistical Institute, Delhi  
**Adi Ben-Israel**, Rutgers Business School, USA  
**Abraham Berman**, Technion-Israel Institute, Israel  
**B. V. Rajaram Bhat**, Indian Statistical Institute, Bangalore  
**Rajendra Bhatia**, Indian Statistical Institute, Delhi  
**Arup Bose**, Indian Statistical Institute, Kolkata  
**Shaun M. Fallat**, University of Regina, Canada  
**Surender Kumar Jain**, Ohio University, USA  
**Arbind K. Lal**, Indian Institute of Technology, Kanpur  
**Augustyn Markiewicz**, Poznań Univ. of Life Sci., Poland

**K. S. Murali**, Indian Institute of Technology, Bombay  
**Samir K. Neogy**, Indian Statistical Institute, Delhi  
**K. R. Parthasarathy**, Indian Statistical Institute, Delhi  
**T. Parthasarathy**, Chennai Mathematical Inst., Chennai  
**Sukanta Pati**, Indian Institute of Technology, Guwahati  
**Simo Puntanen**, Tampere University, Finland  
**T. E. S. Raghavan**, University of Illinois at Chicago, USA  
**K. P. S. Bhaskara Rao**, Indiana University Northwest, USA  
**Dietrich von Rosen**, SLU Uppsala, Sweden  
**Bikas Kumar Sinha**, Indian Statistical Institute Kolkata  
**K. C. Sivakumar**, Indian Institute of Technology, Madras  
**S. Sivaramakrishnan**, Indian Inst. of Technology, Bombay

**Hans Schneider ILAS lecturer (2020)** : Stephen J. Kirkland, University of Manitoba, Canada

The above is the initially confirmed list of speakers and for the update refer to <http://carams.in/iclaa2020>.

## Registration Fee

Category	ICLAA 2020	ICLAA 2020 + IWMS 2020
Foreign Nationals	\$350	\$350
Indian Nationals, Research Scholars and Faculty	₹2000 + GST	₹3500 + GST
Indian Students having no funding support	₹1000 + GST	₹2000 + GST
There is no GST for the Faculty/Research Scholars/UG/PG Students of MAHE		

## Registration Fee for Accompanying Person

	ICLAA 2020	ICLAA 2020 + IWMS 2020
Foreign Nationals	\$200	\$200
Indian Nationals, Research Scholars and Faculty	₹1000 + GST	₹2000 + GST

## Accommodation

Registration fee covers registration kit, breakfast, lunch and dinner. Accommodation at a Guest House/Shared flats/Hostel/Fortune Inn Valley View will be arranged, on prior request on a payment basis. The payment towards the hostel accommodation may be partially/fully waived off/reimbursed by the organizers depending on the availability of funds.

### Preconference Workshop (Dec 10-16, 2020):

**Title: Special Matrices and Graphs**

**Resource Personnel:**

**R. B. Bapat, A. Berman, S. Kirkland**

**Registration fee: Nil, Accommodation charges as applicable. Registration open for limited number of ICLAA 2020 participants. Contact Organizing Secretary for enrolment.**

## Important Dates

Last date for registration :

**December 01, 2020**

Last date for abstract submission :

**November 20, 2020**

Notification of abstract acceptance :

**December 05, 2020**

### CRR Day - A day in honor of Professor C. R. Rao:

Professor C. R. Rao is among great Indian Statisticians, the world ever seen, and we are all proud of observing him to be on his 100 year in the year 2020. CARAMS, MAHE would be very glad to celebrate the occasion and dedicate the common day, December 17, 2020, of IWMS 2020 and ICLAA 2020.

For more details <http://carams.in/iclaa2020>