

# National Workshop on Computational Linear Algebra and Graph Theory Using SageMath

(SAGEMATH 2024)

December 18–20, 2024

Hybrid  
Mode

CARAMS, MAHE (Matrix Analysis and Its Applications Chapter) will be organising a three-day national workshop on **Computational Linear Algebra and Graph Theory Using SageMath (SageMath2024)**, from December 18 to 20, 2024. This hands-on workshop explores the computational tools of SageMath useful in matrix decompositions, graph construction, and spectral analysis for students and professionals in Mathematics, Computer Science, Statistics, and Engineering.

## Resource Persons



**Dr. David Raj M**

Vellore Institute of Technology, Chennai



**Dr. Vinay Madhusudan**

Manipal Institute of Technology, Manipal

**Objective of the Workshop:** The workshop will introduce the participants to the versatile computational capabilities of SageMath, focusing on foundational topics in Computational Linear Algebra and Graph Theory. It will cover essential skills such as setting up and navigating SageMath, integrating Python, and understanding its syntax. Participants will delve into key concepts, including eigenvalues, matrix decompositions, solving linear systems, and constructing graphs, and explore advanced applications like spectral analysis and algebraic graph theory. The programme combines theoretical insights with practical demonstrations and culminates in hands-on projects, empowering the attendees to tackle real-world problems effectively using SageMath's computational tools. For more details, visit: <https://carams.in/events/sagemath2024>

**Registration:** Enrol in our portal using the link <http://carams.in/registration> and then go to *My Page* → *Event registered* → *Select the event* → *Payment* for the payment.

**Accommodation:** Accommodation will be provided on the basis of payment, subject to availability. Visit the website for more details.

Registration Fee (Offline) : ₹ 500 + 18% GST  
Registration Fee (Online) : ₹ 500 + 18% GST  
Registration Deadline : December 15, 2024

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