

REPORT

ON

NATIONAL-Level Webinar Code the Cosmos – Your First Step into Computational Methods & Cosmic Science

Date: 6th April 2026

Time: 6:30 PM – 8:00 PM (IST)

Mode: Online (Zoom)

Organized by:

Association of All Computer Science Teachers (AACST)

PATRON & MENTOR / CONVENER

Dr. Abha Khandelwal
Founder, AACST
Retired Head, Department of Computer Science
Hislop College, Nagpur

PRESIDENT

Dr. S. B. Kishor

SPEAKERS

- Dr. Sathyanarayanan K
Assistant Professor, Department of Physics
The Cochin College, Kerala
 - Dr. Ojas Garg
Research Associate, PURSE Project
Maharshi Dayanand University, Rohtak, Haryana
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PARTICIPANTS- 197

The webinar witnessed pan-India participation, with attendees representing nearly all states and a broad spectrum of academic disciplines. It served as a dynamic confluence of students, academicians, and professionals who came together on a common platform to engage with emerging interdisciplinary paradigms. The diverse participation not only underscored the national outreach of the initiative but also reflected a growing academic inclination toward integrating computational methodologies with space science and related domains.

EVENT OVERVIEW

AACST successfully organized the National-Level Webinar titled **“Code the Cosmos: Your First Step into Computational Methods & Cosmic Science.”**

The webinar aimed to introduce participants to the fascinating intersection of **programming, mathematics, and astrophysics**, demonstrating how computational techniques can be used to simulate and understand cosmic phenomena.

The session focused on building foundational understanding for beginners and highlighted how data-driven approaches are transforming modern space science.

WEBINAR SESSION

Session Theme: Computational Methods in Astrophysics

Topics Covered:

- Introduction to Scientific Computing
 - Basics of programming for scientific applications
 - Modeling celestial systems such as planetary orbits and star systems
 - Simulation techniques in astrophysics
 - Data analysis in astronomy
 - Handling and visualization of cosmic datasets
 - Emerging trends in computational astrophysics
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KEY HIGHLIGHTS

- Insightful introduction to computational approaches in space science
 - Demonstration of how simulations help understand celestial phenomena
 - Integration of programming with real-world astrophysical problems
 - Exposure to data-driven astronomy and visualization techniques
 - Interactive and beginner-friendly explanations by expert speakers
 - Encouragement for interdisciplinary learning and exploration
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LEARNING OUTCOMES

By the end of the webinar, participants were able to:

- Understand the role of computational methods in astrophysics
 - Gain basic knowledge of scientific programming concepts
 - Learn how simulations model real-world cosmic systems
 - Analyze and interpret astronomical data
 - Appreciate the interdisciplinary nature of computational science
 - Explore future opportunities in computational astrophysics
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REGISTRATION BENEFITS

- Free participation
- E-certificates for attendees
- Access to learning resources and expert insights
- Opportunity to engage in interdisciplinary academic discussions

REMARKS

The speakers emphasized the importance of computational thinking in modern scientific exploration and highlighted how simulations and data analysis are essential tools in understanding the universe.

They encouraged participants to develop programming skills and explore emerging domains such as **computational astrophysics, space data science, and AI-driven astronomy**.

VOTE OF THANKS

The organizing team expressed sincere gratitude to:

- The Patron & Convener, **Dr. Abha Khandelwal**, for visionary leadership and initiative
 - The President, **Dr. S. B. Kishor**, for moral support.
 - The distinguished speakers **Dr. Sathyanarayanan K and Dr. Ojas Garg** for their insightful and engaging sessions
 - All participants for their active enthusiastic involvement.
 - The technical and organizing teams for ensuring the smooth conduct of the webinar
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CONCLUSION

The webinar “*Code the Cosmos*” proved to be a highly informative and intellectually stimulating academic initiative. It effectively introduced participants to the emerging field of computational astrophysics and demonstrated the transformative role of computational techniques in advancing our understanding of the universe.

The participants engaged actively throughout the session, leaving no stone unturned in seeking clarifications and deepening their conceptual understanding.

The event achieved its objective of promoting **interdisciplinary learning, scientific curiosity, and computational thinking**, and received positive feedback from participants.

REPORT PREPARED BY

AACST Editorial Team