SHRI SHANKARLAL SUNDARBAI
SHASUN
JAIN COLLEGE FOR WOMEN
A Unit of Sri S. S. Jain Educational Society | Reaccredited with A++ by NAAC
Affiliated to University of Madras | An ISO 9001:2015 Certified Institution

A Bi– Annual Publication 2023 - 2024

The Summit - Department of Mathematics

OBJECTIVES FOR THE SEMESTER:

- Achieving 100% results in the semester exams
- Ensuring 0% drop outs
- Bringing more university ranks

INSIDE THIS ISSUE:

ABOUT THE DEPARTMENT

VISION :

- To instill problem solving ability
- To develop the analytical and logical skills of the students.

MISSION :

- To connect the Mathematics they are currently learning to applications within and outside the discipline.

The Department of Mathematics is one among the departments that were formed during the inception of the College. The department is deeply gratified to have high quality and dedicated faculty members who judicially devote their professional effort to both teaching and research. The objective of the department is to help the students to learn even the complex concepts with ease and clarity and train them to develop analytical and logical skills thereby enhancing problem solving skills. The department periodically organizes Seminars, Guest Lectures, Workshops and FDP's by inviting experts from various domains. We also expose the students to the lighter side of Mathematics by conducting intra departmental competitions in recreational mathematics.

INTERCOLLEGIATE COMPETITION

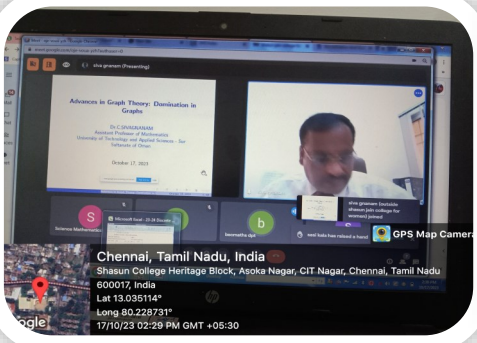
An intercollegiate competition Math Fest 2023 was conducted on 22.07.2023. Ms J.Ooviya and Ms.J.Meenakumari were the chief guests for the events. More than 50 participants from various colleges participated in the events. The overall championship was bagged by A.M. Jain College, Chennai.

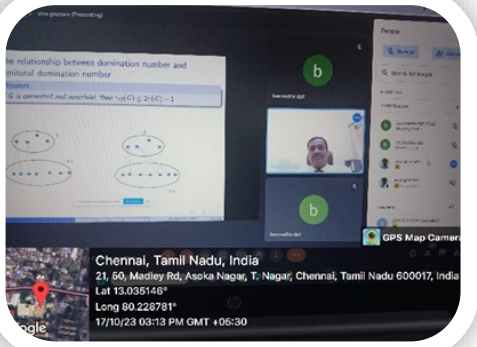
SEMINAR

A seminar on "Real Life Mathematical Application with Practical Demonstration" was conducted on 4.9.23. The Resource Person Dr.R.Sivaraman, Associate Professor, Department of Mathematics, D. G Vaishnav College, Chennai, addressed the students in the seminar on " Real Life Mathematical Application with Practical Demonstration. 80 students from various colleges participated enthusiastically.

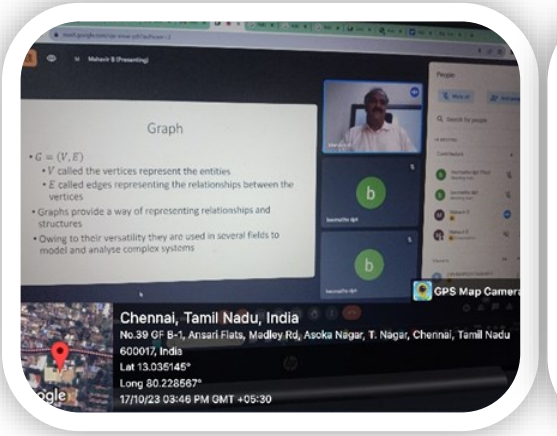
INTERNATIONAL SEMINAR

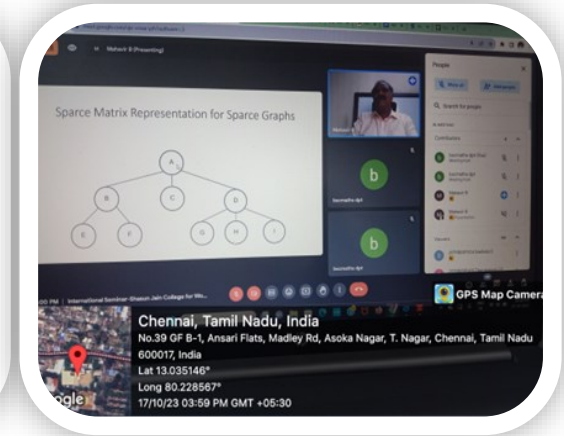
A two-day virtual International Seminar was conducted on 17.10.23 and 18.10.23 on the topic "Global Research in Graph and Fuzzy Theory". The purpose of this seminar was to motivate the research scholars and aspiring researchers to explore several interesting topics in the field of Graph theory and Fuzzy theory. Dr. C. Sivagnanam, M.Sc., M.Phil., Ph.D., Assistant Professor in Mathematics, University of Technology and Applied Sciences – sur, Sultanate of Oman was the resource person for the first session on 17.10.2023. Dr. B. Mahavir, M.Sc., M.Tech., Ph.D., Vice-Principal, Associate Professor and Head, Department of Mathematics, Agurchand Manmull Jain College, Chennai, Tamil Nadu was the resource person for the second session. His focus was on Graph Compression. On 18.10.2023 Dr. Sanjay Kumar Tyagi, Assistant Professor in Mathematics, Department of General Studies, Higher College of Technology, Fujairah, United Arab Emirates gave a talk on Fuzzy Theory.



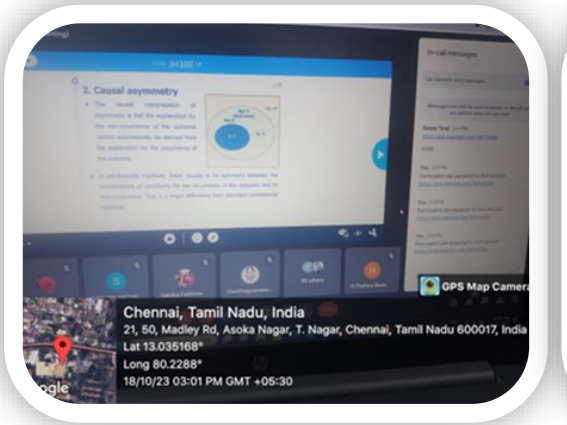


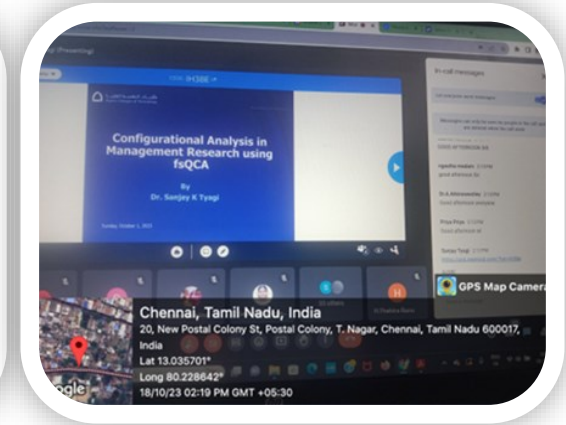
Dr C. Sivagnanam delivering the session on Advances in Graph Theory





Dr. Mahavir B explaining about Graph Compression





Dr. Sanjay Kumar Tyagi Delivering Lecture on Fuzzy Theory

STAFF PARTICIPATION & MOU DETAILS

S.No	Name of the Staff	Details of the Event	Organized by	Dates
1	Dr. M. Kamalam	Two Week National FDP	Sandip University	1.9.23 —15.9.23
2	Ms. N. Geetha	Two Week National FDP	Sandip University	1.9.23 —15.9.23
3	Ms. M. Akila	Two Week National FDP	Sandip University	1.9.23 —15.9.23
4	Ms. A. Sabika Fathima	Two Week National FDP	Sandip University	1.9.23 —15.9.23
5	Ms. H. Thahira Banu	Two Week National FDP	Sandip University	1.9.23 —15.9.23

The staff members of the department registered for the NPTEL course “Accreditation and Outcome Based Learning” and completed the same successfully.

The Department of Mathematics has signed an MoU with the Department of Mathematics of Shri Krishnaswamy College for Women, Chennai on 27.11.2023 to share the expertise available at both the ends for mutual benefits in the field of Education and Training.

READER'S CORNER

History of Mathematics & Astrology in Ancient India

Science and Mathematics were highly developed during the ancient period in India. Ancient Indians contributed immensely to the knowledge in Mathematics as well as various branches of Science. You will be surprised to know that many theories of modern day mathematics were actually known to ancient Indians. However, since ancient Indian mathematicians were not as good in documentation and dissemination as their counterparts in the modern western world, their contributions did not find the place they deserved. Moreover, the western world ruled over most of the world for a long time, which empowered them to claim superiority in every way, including in the field of knowledge. Let us now take a look at some of these contributions of ancient Indian mathematicians.

Baudhayan

Baudhayan was the first one ever to arrive at several concepts in Mathematics, which were later rediscovered by the western world. The value of pi was first calculated by him. As you know, pi is useful in calculating the area and circumference of a circle. What is known as Pythagoras theorem today is already found in Baudhayan‟s Sulva Sutra, which was written several years before the age of Pythagoras.

Aryabhatta

Aryabhatta was a fifth century mathematician, astronomer, astrologer and physicist. He was a pioneer in the field of mathematics. At the age of 23, he wrote Aryabhattiya, which is a summary of mathematics of his time. There are four sections in this scholarly work. In the first section he describes the method of denoting big decimal numbers by alphabets. In the second section, we find difficult questions from topics of modern day Mathematics such as number theory, geometry, trigonometry and Beejganita (algebra). The remaining two sections are on astronomy. Aryabhatta showed that zero was not a numeral only but also a symbol and a concept. Discovery of zero enabled Aryabhatta to find out the exact distance between the earth and the moon. The discovery of zero also opened up a new dimension of negative numerals. As we have seen, the last two sections of Aryabhattiya were on Astronomy. Evidently, Aryabhatta contributed greatly to the field of science, too, particularly Astronomy.

Brahmgupta

In 7th century, Brahmgupta took mathematics to heights far beyond others. In his methods of multiplication, he used place value in almost the same way as it is used today. He introduced negative numbers and operations on zero into mathematics. He wrote Brahm Sputa Siddantika through which the Arabs came to know our mathematical system.

Bhaskaracharya

Bhaskaracharya was the leading light of 12th Century. He was born at Bijapur, Karnataka. He is famous for his book Siddanta Shiromani. It is divided into four sections: Lilavati (Arithmetic), Beejaganit (Algebra), Goladhyaya (Sphere) and Grahaganit (mathematics of planets). Bhaskara introduced Chakrawat Method or the Cyclic Method to solve algebraic equations. This method was rediscovered six centuries later by European mathematicians, who called it inverse cycle. In the nineteenth century, an English man, James Taylor, translated Lilavati and made this great work known to the world.

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