



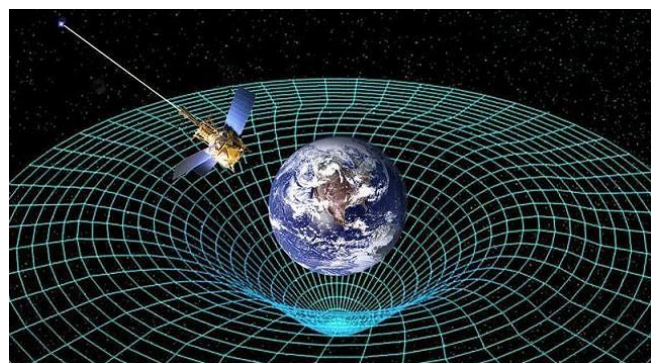
SRI SARADA COLLEGE FOR WOMEN (Autonomous)

Reaccredited with 'B++' Grade by NAAC
(Affiliated to Periyar University)
Salem - 16.

PG & Research Department of Mathematics

*Cordially invites you to the
UG Students' Seminar
on*

The Role of Mathematics in Space Science with reference to **Indian Knowledge System**



Date : 02.08.2024

Time : 10.00 a.m. to 4.00 p.m.

Venue : Sister Nivedita Auditorium

PROGRAMME **INAUGURAL SESSION** (10.00 a.m. to 11.00 a.m.)

Prayer

Welcome Address : S. Bharani
III B.Sc. Mathematics

Benediction : Yatiswari Vinayakapriya Amba
Directress,
Sri Sarada Educational Institutions,
Salem - 16.

Yatiswari Guhapriya Amba
Secretary,
Sri Sarada College for Women (Autonomous),
Salem - 16.

Releasing the Seminar Volume : Dr. R. Uma Rani, M.C.A., M.Phil., Ph.D.
Principal,
Sri Sarada College for Women (Autonomous),
Salem - 16.

Receiving the Seminar Volume : Dr. M. Sudha, M.Sc., M.Phil., Ph.D.
HoD & Associate Professor,
PG & Research Department of Mathematics,
Sri Sarada College for Women (Autonomous),
Salem - 16.

Keynote Address (Online) : Dr. S. Meenakshi, M.Sc., M.Phil., B.Ed., Ph.D.
Assistant Professor,
Department of Mathematical and Computational Sciences,
Sri Sathya Sai University for Human Excellence,
Kalaburagi, Karnataka.

Vote of Thanks : B. Kaviya
III B.Sc. Mathematics

TECHNICAL SESSION - I

(11.00 a.m. to 1.15 p.m.)

Chairperson : S.R. Nandhini, III B.Sc. Mathematics
Rapporteur : G. Dharani Priyaa, III B.Sc. Mathematics

PAPER PRESENTATION

1. History of Ancient Astronomy Through The Contributions of Greatest Astronomers : **S. Vimalarani, S. Swathi & B.J. Sakthi Priya**
III B.Sc. Mathematics
2. Aryabhatas Enduring Contribution to Astronomy in Ancient India: Unveiling the Cosmic Secrets : **M. Brindha & S. Bharani**
III B.Sc. Mathematics
3. The Equant in India: The Mathematical Basis of Ancient Indian Planetary Models : **V. Harini & R. Karteyaeni**
III B.Sc. Mathematics
4. A Mathematical Treatment of Solar Eclipse Formation : **V. Dharaneeshwari & K. Gayathri**, III B.Sc. Mathematics
5. Some Mathematical Methods in Ancient Astronomy : **P. Nikitha, S. Narmatha & A. Rohini**, III B.Sc. Mathematics
6. Mathematical Techniques for Measuring Celestial Objects : **E. Sindhu & R. Sneha**
III B.Sc. Mathematics
7. Earth Maths : Unveiling the Mathematical Harmony of our Planet : **D. Poongodi & R. Nivetha**
III B.Sc. Mathematics
8. The Role of Mathematics in Solar System and Beyond : **C. Poornima, R. Renukadevi & K. V. Revathi**
III B.Sc. Mathematics
9. Mathematical Techniques in Orbit Analysis : **K. Shanmugapriya, S. Shamyutha & K. Sandhiya**
III B.Sc. Mathematics
10. Keplerian and Newtonian Theory in Space : **S. Devipriya & S. Dhanushyasri**
III B.Sc. Mathematics
11. Operations Research Techniques in the Space Industry : **R. Akila & D. Aneesha**
III B.Sc. Mathematics
12. Mathematics of Satellite Motion : **G. Monisha & K. Nandhini**
III B.Sc. Mathematics
13. Analytical Geometry in Satellite Navigation : **S. Kovardhini, T. Kowsalya & V. Mahashree**
III B.Sc. Mathematics

Lunch Break : 1.15 p.m. - 2.00 p.m.

TECHNICAL SESSION - II

(2.00 p.m. to 3.30 p.m.)

Chairperson : S. Kovardhini, III B.Sc. Mathematics
Rapporteur : K. Shanmugapriya, III B.Sc. Mathematics

PAPER PRESENTATION

14. Mathematical Models of GPS Intersatellite Communications in the Gravitational Field of the Earth Space : **V. Pirainila, K. Nisha & G.Dharani Priyaa**
III B.Sc. Mathematics
15. Space Research in Keldysh Institute of Applied Mathematics of RAS: Past, Present & Future : **S.S.Tanushree, K.Thamaraivani & K.Vasanthi**
III B.Sc. Mathematics
16. Finding the Position of Black Holes Using MATLAB : **S.R. Nandhini, B. Nandhitha & J. Narmatha**
III B.Sc. Mathematics
17. Effects of Population II Stars and Three Dimensional Motion on Spiral Structure : **B. Kaviya, L. Keerthika & A. Kokila**
III B.Sc. Mathematics
18. Mathematics Paves the Way for Success Probing of Gliese 581D'S Atmospheric Mysteries : **G. M. Avanthika & M. Ashitha**
III B.Sc. Mathematics
19. Dynamics of a Rocket – Launching Device System : **R. Sowmiya, T. Swetha & M. Swathi**
III B.Sc. Mathematics
20. The Role of Mathematics in the Success of the Apollo 11 Mission : **M. Harini & S. Geetharani**
III B.Sc. Mathematics

NPTEL Videos on Classification of Forces and Trajectory Transfer

Outcomes :

The participants get insights into

1. Various astronomical theories and models developed by astronomers
2. The key mathematical principles underlying space science viz. orbital mechanics, trajectory calculations, and celestial navigation.

VALEDICTORY FUNCTION : 3.30 p.m.

RAPPOREURS' REPORT

VOTE OF THANKS

B. KAVIYA, III B.Sc. MATHEMATICS

COLLEGE SONG