

PROVIDENCE COLLEGE FOR WOMEN (AUTONOMOUS) - COONNOOR
PG & RESEARCH DEPARTMENT OF MATHEMATICS
MATHEMATICS CLUB ACTIVITIES - REPORT
2023-2024

The main objective of this Mathematics Club is to provide a platform for the students to enrich and discover the importance of the subject. Besides academic benefits, Mathematics club also paves a way to meet people and develop teamwork skills.

The activities of the Mathematics club began with the election of the representatives. Arya Sunil of III B.Sc., Mathematics, Afsheen E. of II M.Sc. Mathematics were elected as President of UG and PG respectively and Preethi M. of II B.Sc. Mathematics as Secretary.

The students of the department of Mathematics have taken an oath on 7th July to communicate only in English inside the campus.

On 14th July 2023 the department organized a talk on Career Guidance & Skill development, Dr. Balamurugan N., Soft Skill Trainer, Melur Village, The Nilgiris was the resource person. The programme created awareness on various opportunities in the field of Mathematics, to understand the global scenarios and to expertise the skills that would help them in future. It was organized by Mrs. N. Gayathri, Assistant Professor Department of Mathematics.

A "Motivational Speech" was organized by Dr. B. Ganga, Associate Professor & Head Department of Mathematics on 14th August 2023. The resource person for the session was Ms. Reethu Bheeman Content Writer, Fireball Technologies, Coimbatore. The session aimed at enhancing capabilities and talents of the students.

As a part of Extension activity the students of III B.Sc Mathematics were taken to the Government Higher Secondary School, Yedappalli from 11th of July 2023 to 14th August 2023 under the guidance of Mrs. N. Gayathri, Mrs. R. Saranya Assistant Professors Department of Mathematics. Apart from studies the student got a chance to extend themselves and to expose to the real time teaching experiences in schools. Students taught mathematics for 8th, 9th & 10th standard students.

As a part of UBA, Dr. B. Ganga, Dr. K. Karuppayi and Mrs. N. Gayathri of Department of Mathematics and B.Sc. final year students attended Grama Sabha meeting held on 15th August 2023, in Indira Nagar, Baratty Panchayat. From the survey taken from the Shanmuga Nagar, we consolidated the grievances and that was represented in the Grama Sabha meeting.

Department of Mathematics organized "Math Riddle Queen" competition from the month of August to January 2024. Students from various departments participated and won the "Riddle Queen" title. Swathi.S from III B.Com. was the "Riddle Queen" for the month of August and Manisha from I BCA The "Riddle Queen" for the Month of September.

On 24th August 2023 I.B.Sc. and II B.Sc. Mathematics, 11 students accompanied by Dr. Mahalakshmi K, Department of Physics and Dr. Buvaneswari M, Department of Chemistry visited the Radio Astronomical Centre, Ooty as a field trip. Explanations were given to the students

on Radio telescope's construction, functions and the detection of Radio waves from celestial objects. The Institutional visit was useful to enhance their understanding of the Universe.

As a part of MOU activity, our department along with Department of Mathematics, Providence Women's College, Calicut conducted an International Webinar on 'Role of Mathematics in Science, Engineering and Technology' on **14th September 2023** at 4.30 pm. **Dr. M. Shankar**, Faculty of Mathematics, University of Technology and Applied Sciences - Ibri, Department of General Requirements, Sultanate of Oman, was the resource person. Mrs. Shalini R. Assistant Professor in Mathematics was the organizer. The resource person spoke on Differential equations and its application to solve difficult real life problems. More than 74 participants attended the webinar through G-Meet and got knowledge on mathematical experimental learning, application of various fields of Mathematics (Graph Theory, ODE, Fluid Dynamics, Probability etc.) in various Disciplines and were motivated towards research in Mathematics.

In commemoration of **Teachers Day Celebrations**, PG & Research Department of Mathematics visited "Rotary ASHIA Home" – Ooty, on **19th September, 2023**. 8 Staff and 17 Students visited the home. Our students conducted a Programme for the differently able inmates of the home. The students of the home enjoyed the programme and actively participated. As a token of love an amount of Rs.4000 was given as a contribution towards a meal and gifts for the children of the home. It was an opportunity for our students to realize their social responsibilities.

To bring out the talents of our department students, **September Fantasy-23** was organized from **20.9.23 to 26.9.23**. Various competitions like Pencil Sketching, Wealth out of Waste, Flameless Cooking, Hair Dressing, and Poster making were conducted.

Atmanirbhar Bharath – Self Reliant India campaign is the vision of new India envisaged by the Honorable Prime Minister Shri Narendra Modi. In commemoration with this, from PG & Research Department of Mathematics, Dr. Buvanewari M, Assistant Professor in Chemistry and Ms. Raashmi R, Assistant Professor in Mathematics visited Mountain Home School and Junior College & Arignar Anna Govt. Hr. Sec. School, Coonoor on **27.09.2023** to join us in this endeavor **CAB DRIVE – “Coonoor Atmanirbhar Bharat”**.

On **4th October 2023** II B.Sc. and III B.Sc. Mathematics, 9 students accompanied by **Dr. Buvanewari M**, Department of Chemistry and **Dr. Mahalakshmi K**, Department of Physics, visited Pasteur Institute of India, Coonoor as a field trip. Explanation was given to the students on beacon of scientific excellence, dedication to public health and Effluent Treatment Plants (ETP) / Sewage Treatment Plants (STP) with its rich history, cutting edge research and contribution to vaccine development. Our students gained the knowledge about ETP & STP.

A **National Workshop** on Finite Element Method and its Implementation was organized by **Dr. B. Ganga**, Associate Professor & Head on **17th October 2023**. The resource person for the session was **Dr. E. Natarajan**, Associate Professor in Mathematics, Indian Institute of Space Science and Technology, Thiruvananthapuram, Kerala. He highlighted the importance of Finite Element Method (FEM) in solving complex engineering and scientific problems involving partial differential equations. He also highlighted the importance of computation tools (MATLAB) for solving Poisson equations using FEM. 20 of our students were benefited from this session.

Under the guidance of **Dr. B. Ganga**, Associate Professor & Head, Ph.D. public viva-voce examination of **Mr. S. Charles** was conducted on **17th October 2023**.

PG & Research Department of Mathematics conducted online Alumni meet on 15th December 2023 from 6.30 pm to 8 pm to strengthen the bonding of the alumni members with the department and the alumni members were asked for their suggestions regarding admission, placement and the development of the department.

PG &,Research Department of Mathematics Organized **Olympiad** in commemoration of **Ramanujan Day** to enhance the skills of the students. As a part of it **Paper Presentation** competition was conducted on 19th January 2024 on the topic: "Application and Tools of Industry 4.0". Nine students participated in the competition. The Judges for Paper presentation were Dr. K. Karuppayi and Mrs.R.Shalini, Assistant Professor, Department of Mathematics.

An Inter year **Mime** competition was conducted on 20th January 2024 on the topic: "Mental Health Awareness". There were 4 teams. Participants depicted the theme with their wonderful ideas and creative performance. The competition was judged by Dr. C.Hemalatha, Associate Professor and Head, Department of Economics.

A **Quiz** competition was conducted on 20th January 2024 to develop the interest of the students on the curricular and extra-curricular activities. The organizers are **Mrs.R.Saranya & Ms. R.Raashmi**, Assistant Professors Department of Mathematics. The Principal & Secretary presided over the function, the prizes for the winners of Olympiad and September Fantasy was distributed by the Principal. Creative Excellence Award also given to **Afshen.E** of II M.Sc Mathematics on the same day.

The students of Department of Mathematics attended One Day Intercollegiate meet "INFINNOVATION - 2K24" organized by Sri Krishna Arts and Science College, Coimbatore on 3rd February 2024 under the guidance of **Ms. Raashmi R**, Assistant Professor in Mathematics.

MANTHANEIN 2024 – A National Level Inter Collegiate Fest was conducted in Collaboration with Jyothi Nivas College, Bengaluru on 16th February, 2024. Our students participated in Artistic Geometer, Pep Talk Contest and Colourful Stillness. 7 of our students participated online **Mode** and **Afshen E** of II M.Sc. Mathematics won the II prize in Artistic Geometer and **Gunjan Dugar** of I B.Sc. Mathematics won the II prize in Pep Talk Contest.

In collaboration with Bannari Amman Institute of Technology, Sathyamangalam and Dr. SNS College of Arts and Science, Coimbatore - organised a webinar on " Genetic Code Boolean Algebra" on 19th February 2024. The Resource person was **Dr. M. Yamuna**, Professor Grade I, Department of Mathematics, School of Advanced Sciences, VIT University, Vellore. She explained the connection between genetic coding and Boolean Algebra and its application in biological processing, computational methods, analyzing the development of genetic engineering personalized medicine etc., It was organized by **Dr.K.Karuppayi**, Assistant Professor, Department of Mathematics.

Skill development programme named "Mathmagicians" is conducted by the students every week on Wednesday from 1 p.m. to 1.30 p.m. Our students had various sessions on the **Importance of vedic Mathematics, Digital Literacy, Playing with AI** etc., The **Mathmagician** skill was a platform for the students to showcase their unique talents and foster a supportive learning environment within the mathematics community. It helped the students to enhance their potential and creative skills.

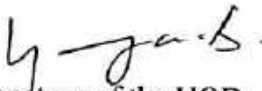
On 28th February in commemoration of National Science Day, Department of Mathematics along with Department of Botany and Department of Computer Science organized a talk on the topic "Science and the Society". Mr K.J Raju, State Resource Faculty, Tamil Nadu Science Forum and Mr. Belli were the resource person. He spoke about the importance of nature and how to sustain our environment.

On 29th February 2024, as a part of Athmanirbhar Bharath, our staff visited Arignar Anna Govt. Hr. Sec. School, Coonoor and delivered a talk on "Unity in Diversity".

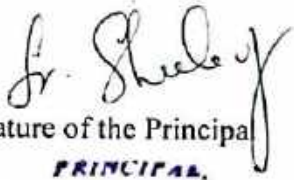
As a part of UBA our III B.Sc. Mathematics students along with 2 staff **Dr.Buvaneswari M**, Assistant Professor in Chemistry and **Dr.Mahalakshmi**, Assistant Professor in Physics conducted a Digital Awareness Programme on 2nd March 2024.

It was a year filled with activities to enhance skills and talent of the students. We thank the Management, Rev.Sr.Secretary and Rev.Sr.Principal, for their constant support and motivation in all our endeavours.

Above all we thank the Almighty for His Blessings, showered on us throughout the year.


Signature of the HOD
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Signature of the Principal
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Signature of the Chief Guest