W M O Arts and Science College, Muttil Department of Mathematics Annual Report 2022-23

I. Students' Strength

Sl No	Class	No of Boys	No of Girls	Total
1	I BSc Mathematics	14	22	36
2	II BSc Mathematics	14	33	47
3	III BSc Mathematics	5	29	34
4	I MSc Mathematics	4	11	15
5	II MSc Mathematics	2	21	23
Total		39	116	155

II. Faculty

- 1. Dr Viji Paul
- 2. Lt. Santhosh Kumar C.G
- 3. Ms Mini C
- 4. Ms Aswathi K
- 5. Ms Fathima Sithara
- 6. Ms Afeera M
- 7. Mr Saneeshbabu
- 8. Ms Anu Jose

III. Invited talks/Seminars/Workshops

- 1. A workshop on Technical writing with LateX was conducted on 24-3 2023. Ms Drisya T Das Served as the resource person. Thirty postgraduate students and faculty attended the workshop.
- 2. Dr Beena Koshy, Assistant Professor, Catholicate College, Pathanamthitta delivered a talk on 'Strategies for learning Mathematics' on 27-4-2023 for undergraduate students of Mathematics



IV. Skill Development Workshop

In collaboration with Cochin University of Science and Technology(CUSAT), and Mary Matha Arts & Science College, Mananthavady, a Skill Development Workshop was organized during January 6-7, 2023. Dr. Sasi Gopalan, Prof and Head, Department of Mathematics, Coordinator EOC & SOCE, CUSAT, Dr Viji Paul, Associate Professor and Head, W M O Arts & Science College, and Dr Thomas Monoth, Associate Professor and Head, Mary Matha College, were the Co-ordinators. Sixteen resource persons from CUSAT including Faculty and Research Scholars lead the sessions. Four parallel sessions were arranged on diverse fields. More than 400 students made use of the program. Six talks on various topics of Mathematics were delivered.







V. AZADI KA AMRUTH MAHOTSAV

1. Meraki: A get-together of all staff and students in the Department of Mathematics was conducted on August 15, 2022, at 12.30 pm under the title "Meraki". Students performed cultural programmes and celebrated 76th Independence Day. Sarang .M. J of 2nd year MSc Mathematics delivered an Independence day message. Some games related to Indian history and geography were conducted. Distributed prizes to the winners of Mathematics Problems Contest no. 108 and the achievers of Essay writing competitions conducted by Dept. of Economics and Statistics, Govt. of Kerala.



2. Inauguration of Ideatory Clan

The Ideatory Clan is an initiative proposed by 2nd year MSc Mathematics with the motto "Be the change that you want to see in the world". Ms Midhula Manoj welcomed the gathering. Principal Dr. T . P . Muhammed Fareed inaugurated the Ideatory Clan on 16-09-2022 and delivered the inaugural address. Ms. Khairunnisa, 2nd year MSc Mathematics introduced the Ideatory Clan to the audience and spoke on its prospects and possibilities. Dr. Viji Paul delivered presidential address. Mr. Saneesh Babu and Ms. Anu Jose offered felicitations. Mr. Sebin Mathew proposed the vote of thanks.



3. Special Mathematics Circle:

A special Mathematics circle entitled "India, Independence and Mathematics" was conducted on 19-08-2022. Mr Sebin Mathew of D2 Mathematics welcomed the gathering. Ms Fathima Sithara offered felicitations. A talk on Indian Constitution was given by Saradha S of D2 Mathematics. An Indian mathematician named 'Narendra Karmarkar' was introduced by 'Bhagyalakshmi'. Karmarkar algorithm was one of his notable contributions to the field of mathematics. Bhagyasree introduced a non-famous female freedom fighter 'Rani Velu Nachiyar' who led the first riot against the British. A Mathematics quiz was conducted by Naseeha & Ashina. Two games were conducted under the guidance of Aleena and Sebin. Afrin, Shahana and Fidha of D2 Mathematics made the occasion more enjoyable with a patriotic song. Mr Sebin Mathew proposed a vote of thanks.



- **4. Online Quiz**: An online quiz was conducted on the topic "India and Independence" on 18-08-2022 co-ordinated by Sebin Mathew. The winners of the programme are Fathima Naseeha (D2 Mathematics), Vivek M(D3 Mathematics) and Shameer (M Com).
- **5. Students' Presentations**: As part of celebrating 75 years of Independence, students were given an opportunity to present topics related to development in India in various aspects . Ms. Mishba of II MSc Mathematics delivered the welcome speech. Ms. Rishana hosted the programme. Ms Saradha S of II BSc Mathematics presented on the topic "Indian politics: Now and Then" and Ms. Soumya of III BSc Mathematics presented on the topic "India, before and after Independence". A discussion on the content of the presentations was held afterwards.



VI. Institutional Visit from Providence College

As part of collaborative activities between WMO College and Providence Women's College, Kozhikode, a group of Mathematics students and faculty from Providence College visited W M O college on 3-12-2022. Dr Viji Paul delivered a talk on the 'Art of Problem-solving'. Ms Saradha S, II BSc Mathematics presented on 'Introduction to Fractals'. A session 'Think with Games' was arranged by students of W M O College for the guests. The students were given a demonstration on various mathematical games, which helped them to understand the practical applications of mathematical concepts. PWC students conducted an interactive Logo Quiz.





VII. National Mathematics Day Celebrations (MAGMA – 2022) (1) Mathematics Exhibition

On 22-12-2022, commemorating National Mathematics Day and paying tribute to the legend Srinivasa Ramanujan, a Mathematics Exhibition was conducted for students and the public. It showcased various aspects and applications of Mathematics in everyday life and it created interest and curiosity in the subject. Several games and puzzles were exhibited which fascinated the visitors and got appreciation from the participants. A pavilion for the Ideatory clan was arranged to exhibit the items prepared by its members using waste materials and used pens. An awareness campaign to educate the students and public about the importance of environmental conservation and the need for socially responsible actions was conducted. The model of the college gate, made of used pens and a boat made of wrapping materials and cardboard were exhibited. The hyperbolic clock made of wood was an attraction to many.

(2) Treasure Hunt

A treasure hunt was conducted by postgraduate students of Mathematics which included various puzzles and tasks. It combined math skills with outdoor adventure, promoting teamwork and critical thinking. About 40 students participated in the event, forming teams of four to five individuals. All teams showed enthusiasm and excitement throughout the event. The event was enjoyed by all participants and proved to be an excellent way to engage students and promote learning in a fun and engaging way.





VIII. Workshop on Technical Writing with Latex

As part of the curriculum delivery of the certificate course on Technical Writing with LateX, a workshop was conducted on 24-3-2023 for postgraduate students of Mathematics. Ms Drisya T Das served as the Resource Person for the programme. It helped the students to improve their writing skills and enhance their academic or professional prospects.



IX. Association activities

- (1) A get-together of staff and students of the department and a Circle meet for freshers (**ESPERANZA-2022**) was conducted on 28-9-2022 to congratulate achievers of the department and welcome the freshers.
- (2) A farewell meet (CHEERIO) was coordinated to bid farewell to the outgoing undergraduate students and commemorate and honour their achievements and contributions. A video presentation that highlighted some of the key moments from the student's life and an open mic session where students can share their thoughts and memories about their time at the college and various cultural programs were arranged.
- (3) Celebrated Onam 2022 with various programs and cultural events. Onasadhya was shared together.













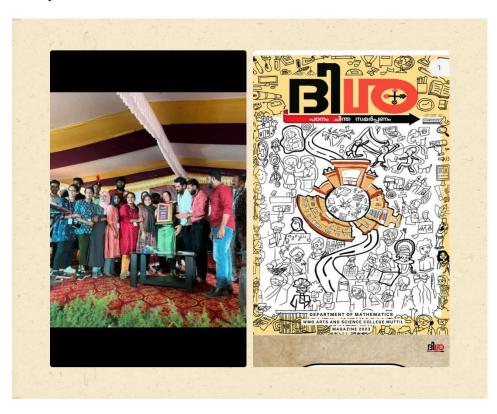






X. Manuscript Magazine

The manuscript magazine 'A' (6') (6') prepared by the students of Dept. of Mathematics won the 1st Prize for the Best Magazine in the inter-department Magazine competition 2022-23. The Editorial Board, constituted by II BSc Mathematics students led the venture.



XI The Mathematical Circle

Students of Dept. of Mathematics were divided into groups, and they lead meetings of the Mathematical Circle performing various events like Exploring new mathematical ideas, Mathematical games and puzzles, short math quizzes, Math magics, problem contests, etc. A total of 10 meetings of the Circle were conducted during the year 2022-23.











XII Audit Courses and Students Presentations

To enable curriculum delivery of audit courses, students' presentations were conducted on various topics including Environmental issues, Disaster management, Intellectual property rights, and Gender equality.



XIII Ideatory Clan

The Ideatory Clan is an initiative of the students of the department with the motto 'Be the change that you want to see in this world'. It aims to make positive changes in society through socially committed, environmentally friendly activities. One of the primary activities undertaken by the club is collecting used pens and making useful materials out of them. The members of the Ideatory Clan conducted an awareness campaign during the exhibition (MAGMA -2022), to educate the students and the public about the importance of environmental conservation and the need for socially responsible actions. The efforts could be an inspiration to others and highlight the importance of taking responsibility for our actions and making a positive difference in the world.



XIV CUSSP

As part of CUSSP (Calicut University Social Service Programme) the students of the BSc Mathematics (2020- 2023 batch) had a mandatory social service activity. The III year BSc Mathematics students visited Kozhikode Beach on December 12, 2022, and cleaned the premises of the beach. The students were divided into five groups, each led by a designated leader. Every team member was provided with gloves and waste covers to handle the collected debris. They commenced the cleaning process, with each group responsibly collecting the waste in their assigned areas. As per the instructions from the officers, they stored the collected waste in a specified location for the Kozhikode corporation members to collect. During our time at the beach, they had the opportunity to meet representatives from a charitable organization called TMK. They were seeking assistance from beach visitors to support their cause of providing food to the underprivileged, particularly orphans. The students collected a sum of money to contribute to their noble efforts.



XV Academic visits and field trips

Students and faculty members of W M O Arts and science college, Muttil, embarked on the journey to the Indian Institute of Science (IISc) located near Yeshwanthpur, Bangalore on the open day held on 4th March 2023 between 9 am to 5 pm. It provided a unique opportunity for the students to explore the world of research and innovation in the field of science and technology. It aimed at enhancing the knowledge and practical skills of the students and motivating them to pursue research as a career option. The visit was also intended to create an interest in the students towards academic excellence and to encourage them to explore the opportunities available in the scientific research field.



XVI Blended Learning

- 1. Rahila K K, III BSc Mathematics NPTEL Online Certification for Calculus of One Real Variable with 96%
- 2. Saradha S, II BSc Mathematics -- NPTEL Online Certification for Calculus of One Real Variable with 87%
- 3. Arathi Anil, III BSc Mathematics NPTEL Online Certification for Calculus of One Real Variable with 54%
- 4. Saneesh Babu, Dept. of Mathematics NPTEL Online Certification for Introduction to Abstract Group Theory with 95 %
- 5. Saradha S, II BSc Mathematics -- NPTEL Online Certification for Linear Algebra with 76%
- 6. Rizwa Fathima V N , II BSc Mathematics -- NPTEL Online Certification for Linear Algebra with 53%
- 7. Bhagyalakshmi V , II BSc Mathematics -- NPTEL Online Certification for Basic Calculus with 46%
- 8. Arathi Anil, III BSc Mathematics NPTEL Online Certification for Data Analytics with Python with 63%
- 9. Soumya S, III BSc Mathematics NPTEL Online Certification on Basic Real Analysis with 54%

XVII Achievements of Faculty

Lt. Santhosh Kumar C G, Assistant Professor of Mathematics completed the PRCN course of NCC with A grade and 5th position out of 480 cadet trainee officers from various states of India. The staff and students of the department organized a special gathering and felicitation event to commemorate his outstanding accomplishments.



XVIII Contributions of Alumni

1. Ms Meera Mohan T M, Statistical Investigator, Directorate of Census Operations delivered a talk on Career prospects of Mathematics on 14-3-2023



2. Students of the 2000-2003 BSc Mathematics batch held a reunion on 13-5-2023 and presented a set of Mathematics books to the department library.





3. Students of the 2008-2011 batch held a reunion on 20-5-2023, organized a gathering with faculty members, and cherished old memories.





XIX. Achievements of Students

1. Bhagyasree V and Sebin Mathew, I BSc Mathematics won First Prize in the Intercollegiate Quiz competition conducted by the Department of Economics and Statistics (Govt. of Kerala) on 29th June 2022, observing National Statistics Day at Civil Station, Kalpetta.

- 2. Shadi Nilofer and Basil Eldho, ll MSc Mathematics won Second Prize in the Intercollegiate Quiz competition conducted by the Department of Economics and Statistics (Govt. of Kerala) on 29th June 2022, observing National Statistics Day at Civil Station, Kalpetta.
- 3. Rahila K K and Vivek M, Ill BSc Mathematics won Third prize in the Intercollegiate Quiz competition conducted by the Department of Economics and Statistics (Govt. of Kerala) on 29th June 2022, observing National Statistics Day at Civil Station, Kalpetta.
- 4. Fathima Naseeha of II BSc Mathematics won First place of the Reading Competition Conducted by Readers Forum and Dept. of Mathematics on 19-6-2022
- 5. Afrin Hanan of II BSc Mathematics won II place in the Reading Competition Conducted by Readers Forum and Dept. of Mathematics on 19-6-2022
- 6. Arathi Anil of III BSc Mathematics won III place (shared with Anshida E A of II BSc Physics) place of the Reading Competition Conducted by Readers Forum and Dept. of Malayalam on 19-6-2022
- 7. Saradha S of II B Sc Mathematics secured I place for the Intercollegiate Essay writing competition on 'Data for Sustainable Development' conducted by the Department of Economics and Statistics (Govt. of Kerala) observing National Statistics Day on 29-6-2022.
- 8. Nandana V M, II BSc Mathematics, secured II place for the Intercollegiate Essay writing competition on 'Data for Sustainable Development' conducted by Department of Economics and Statistics (Govt. of Kerala) observing National Statistics Day on 29-6-2022.
- 9. Hridya N of II BSc Mathematics won I place of the Online Quiz competition conducted by Dept. of Hindi, W M O College on 31-7-2022
- 10. Sebin Mathew of II BSc Mathematics and Vivek M of Ill BSc Mathematics secured First position in the Quiz competition conducted by St Mary's College, Sulthan Bathery in connection with Science Fest, held today (30-9-2022).
- 11. Rahila K K and Vivek M of Ill BSc Mathematics secured second place in the District level Quiz competition conducted by Kerala Forest Department in connection with Wildlife week celebrations- 2022 on 3.10.2022
- 12. Sebin Mathew of II BSc Mathematics and Muhammad Basil of I BSc Mathematics secured First position and cash award in the Intercollegiate Mathematics Quiz conducted by PTM Govt. College, Perinthalmanna 28-10-2022.

- 13. Vivek M and Rahila K K of lll BSc Mathematics won the second prize in the Intercollegiate Mathematics Quiz conducted by Mary Matha Arts and Science College, Mananthavady on 4-11-2022.
- 14. Roshni K J of II BSc Mathematics won first place in the Shooting in standing position (Inter Battalion Sports Shooting Competition) conducted by NCC on 7-12-2022.
- 15. Roshni K J of II BSc Mathematics won II place in the Shooting in prone position (Inter Battalion Sports Shooting Competition conducted by NCC on 7-12-2023.
- 16. Saradha S of ll BSc Mathematics won third position for the paper entitled 'Fractal geometry ' under the student's category during the International Online Conference conducted by St Stephen's College, Uzhavoor in association with M G University, Kottayam.
- 17. Vishakh T R of MSc Mathematics received the Baroda Achievers award for Best in Academics on 18-1-2023
- 18. Rahila K K of III BSc Mathematics received the Baroda Achievers Award for Best All rounder on 18-1-2023.
- 19. Saradha S of II BSc Mathematics won III prize in the Intercollegiate Project Presentation competition conducted by Baselius College, Kottayam held on 10-3-2023.
- 20. Sebin Mathew of II BSc Mathematics and Muhammad Basil of I BSc Mathematics secured second position and cash award in the Intercollegiate Mathematics Quiz conducted by St. Joseph's College, Devagiri on 1-2-2023.
- 21. Arathi Anil of III BSc Mathematics got selected to WIPRO's Work Integrated Learning Program (WILP) as scholar trainee. It includes placement at WIPRO together with option to study M.Tech at BITS, Pilani.
- 22. Rahila K K of III BSc Mathematics qualified JAM 2023 with rank 904
- 23. Rahila K K of III BSc Mathematics was selected for Integrated Ph D at IISER, Thiruvananthapuram
- 24. Rahila K K of III BSc Mathematics secured 4th rank of the BSc Mathematics Programme at University of Calicut in 2023.
- 25. Rahila K K of III BSc Mathematics secured First rank in the CUCAT conducted by University of Calicut
- 26. Rahila K K of III BSc Mathematics secured 9th rank in the CUSAT CAT conducted by Cochin University of Science and Technology. Six students got ranks less than 100.

Photos of achievements by students























18 January **2023**

BARODA ACHIEVERS AWARD

As a part of social service activities Bank of Baroda has implemented "Baroda Achievers award" for the top performers in selected categories from identified institutions.

..... Awardees



VISHAKH T R
ACADEMICS

MSC MATHEMATICS



HANISH P M
SPORTS

B. COM CO-OPERATION



RAHILA KK ALL ROUNDER

BSC MATHEMATICS

WMO ARTS & SCIENCE COLLEGE, MUTTIL

