



ST. ALOYSIUS COLLEGE, EDATHUA

PRINCIPAL'S MESSAGE



Dear Students and Faculty members ,

I am delighted to address you through the Mathematics Department Newsletter for the academic year 2022-2023. This newsletter serves as a bridge that connects our academic community, providing a platform to celebrate our achievements and share knowledge which strengthen the bonds of our vibrant and ever-growing mathematics family.

At St. Aloysius College, we have always placed great emphasis on nurturing the intellectual curiosity and talents of our students. The Mathematics Department, being an integral part of our institution, has consistently strived to achieve this goal, and I am proud to say that the year 2022-2023 was no exception.

Our students have showcased their brilliance in various fields of mathematics, participating in collegiate and intercollegiate level competitions, and

bringing home accolades. They have proven that with dedication and hard work, they can excel in any mathematical challenge that comes their way.

Our esteemed faculty members continue to inspire and guide our students with their commitment to quality education and innovative teaching methods. Their dedication to research and their unwavering support for our students have played a crucial role in our department's continued success.

As we move forward into the next academic year, I encourage all of you to keep pushing the boundaries of your knowledge, to explore new horizons, and to keep the spirit of inquiry alive. Mathematics is not just a subject; it's a way of thinking, problem-solving, and understanding the world around us. It is the key to unlocking the mysteries of the universe.

I would like to express my sincere gratitude to the entire Mathematics Department, the students and faculty for their relentless efforts and unwavering commitment to excellence. Let us continue to work together, learn together, and achieve new heights in the world of mathematics.

I wish all of you a successful and inspiring year ahead. May your journey in the world of mathematics be filled with excitement, challenges, and countless "Eureka!" moments.

With warm regards,

Prof Dr. Indulal G

Principal,

St. Aloysius College, Edathua

MESSAGE FROM HOD



We take immense delight in presenting yet another edition of MASA. The journey of Mathematics department commenced in 1980, has spanned four decades, during which it was evolved into a center of excellence in education. We take pride in nurturing our students, equipping them with the skills to explore, interpret, and understand the world around them. The collaborative efforts of our dedicated faculty play a pivotal role in shaping the inquisitive minds of upcoming generation. We express our heartfelt gratitude for the effort invested in bringing this publication to fruition and extend our best wishes for success in all future endeavors.

Dr. Mary George

FROM THE EDITOR'S DESK



In this latest volume of MASA, we rejoice in highlighting the exceptional accomplishments and advancements achieved by our dedicated faculty and enthusiastic students. The academic year 2022-2023 has been a period of innovation and excellence, and this publication aims to showcase the remarkable journey we have undertaken.

This edition of MASA also serves as a testament to the collaborative spirit that runs deep within our department, fostering an environment where the pursuit of knowledge and the spirit of exploration flourish. It is a privilege to share our achievements with you, and we extend our sincere gratitude to all who have contributed to making this academic year a resounding success.

As you delve into the following pages, we encourage you to join us in celebrating the extraordinary journey of our department and the collective pursuit of excellence. Thank you for being a part of our academic community, and we look forward to your continued support and engagement in the years to come.

Deena C Scaria

UNIVERSITY RANK



Ms. Aneesa Asharaf's achievement of securing the 7th Rank in the MG University BSc Mathematics Examination in May/June 2022 was a source of pride for the Mathematics Department. To recognize her accomplishment, she was honored during the college's merit day on 9th November, where Rev. Fr. Mathew Chooravady, the manager of the college, presented her with a commemorative memento.



Leading our academic institution with unwavering dedication, Prof. Dr. Indulal G, a senior member of the Department of Mathematics, stands at the helm as our esteemed principal.

Dr. Indulal G has been a dedicated figure in the Department of Mathematics at St. Aloysius College in Edathua for the past 27 years, where he has now assumed the prestigious role of Principal. Throughout his tenure, he has made significant contributions to the institution, having served as both the IQAC and NAAC coordinator. Dr. Indulal G is renowned for his groundbreaking research in the field of spectral graph theory, with an impressive track record of 35 published articles that have added depth and understanding to this complex discipline. His impact extends beyond academia, as he has shared his expertise through over 50 invited talks at various national and international platforms, inspiring and enlightening countless individuals. Additionally, Dr. Indulal G is a multifaceted individual, channeling his passion for literature and science into vernacular writing, effectively popularizing Malayalam literature and scientific knowledge among the masses. His illustrious career is a testament to his unwavering commitment to education, research, and the dissemination of knowledge.

MATHEMATICS ASSOCIATION

Office bearers of the Mathematics Association for the academic year 2022 - 2023 were:

Mr. Jijo Joy Association President

Ms. Tania Maria Biju, Association Secretary, 3rd BSc

Mr. Ajin V Joseph, Treasurer, 3rd BSc Mathematics



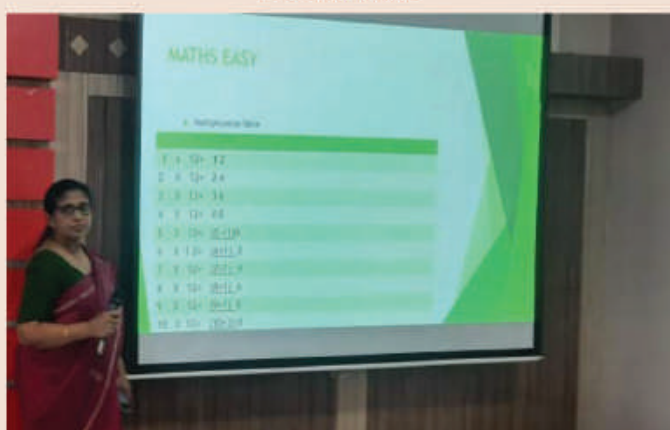
MATHEMATICS ASSOCIATION INAUGURATION



The Mathematics Association for the year 2022-23 was inaugurated on November 3, 2022. Mrs. KochuThresiamma Joseph, Former Vice - Principal and Head of the Department of Mathematics, St. Aloysius College, Edathua, served as the chief guest. Sri. Jijo Joy, the association president, chaired the meeting. The gathering also heard from Mr. Jogy Joseph, the principal in - charge, and Dr. Mary George, Head of the Department. Ms. Santra C S of third BSc Mathematics welcomed the gathering and Ms. Tania Maria Biju, the association secretary proposed the vote of thanks. Ms. Aneesa Asharaf, who secured the 7th rank in BSc Mathematics at MG University, received special recognition during the event.



SEMINAR



A seminar titled 'Ganitham Ethra Sundaram' was hosted by the Mathematics Association on November 3, 2022. Mrs. KochuThresiamma Joseph, Former Vice - Principal and Head of the Department of Mathematics, St. Aloysius College, Edathua, was the featured speaker, and it was attended by students from both the undergraduate and postgraduate programs within the department.

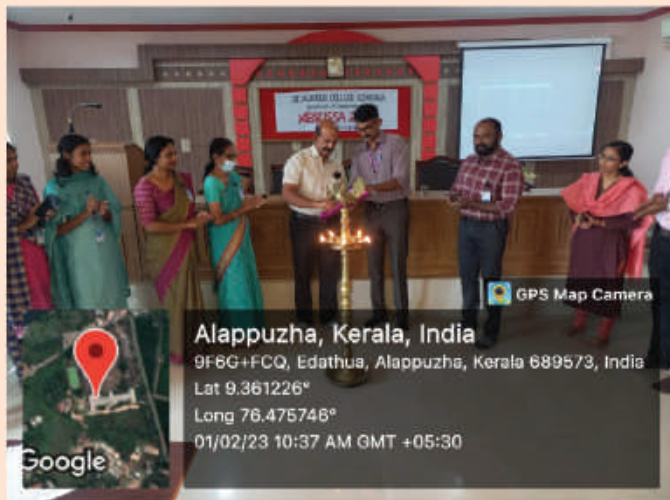
FRESHERS' DAY



On November 3, 2022, the Mathematics Association hosted an unforgettable welcome event and Freshers day, extending a warm welcome to both first-year undergraduate and postgraduate students. The seniors postulated their juniors with a mix of enjoyment and delicious food.

RELEASE OF NEWSLETTER 2022

The department's newsletter for the academic year 2021-22 was released by the Principal in - charge Mr. Jogy Joseph on February 1 2022 by handing over the first copy to Lt. Dr. Jubin Antony, who served as the editor.



DEPARTMENT MANUSCRIPT MAGAZINE

On the 21st of March 2023, the Mathematics Association launched the Manuscript Magazine 'UDVITA,' with Mr. Jogy Joseph, the Principal in - charge, presiding over the release. Ms. Fathimadul Hind took on the role of student editor, and the magazine had an editorial team composed of Mr. Ben Thomas, Ms. Devika K L, Ms. Elsa Francis, Ms. Sruthi P Chandran serving as sub editors.



IRENE MARY MATHEW MEMORIAL QUIZ COMPETITION

This year too the Mathematics Association organized Ms. Irene Mary Mathew memorial quiz competition for the students of higher secondary schools in Kuttanad taluk on 3rd February 2023. Fifteen students from 9 schools participated in the event. Dr. Mary George, Head of the department of Mathematics inaugurated the meeting. Principal in - charge Sri Jogy Joseph presented the cash award and certificates to the winners. The prizes were sponsored by Smt. Kochuthresiamma Joseph, the former HoD.



MATHEMATICS ASSOCIATION VALEDICTORY

The Mathematics Association concluded its activities for the year 2022-23 with a valedictory function held on the 21st of March 2023. Mr. Jogy Joseph, the Principal in - charge, graced the event as the chief guest, and Sri. Jijo Joy, the association president, presented the annual activity report.



FAREWELL TO THE FINAL YEAR STUDENTS

On the 21st of March 2023, a farewell ceremony was organized for the departing final year undergraduate and postgraduate students of the department. Prof Dr. Indulal G addressed the gathering. During this gathering, students from the graduating batch reminisced about their campus life. The meeting concluded with a high tea, and the faculty members extended their best wishes to the students for success in their upcoming University examinations and future endeavors.



EXTENSION PROGRAMMES

PARENTS' MEETING

The constructive and open discussions during the parents' meeting facilitated a deeper understanding of the students' academic progress and allowed for a collaborative approach to address any concerns or feedback raised by the parents.

First Year BSc
16th December 2022

Second Year BSc
1st December 2022

Third Year BSc
24th March 2023

CERTIFICATE COURSE

Two certificate courses were conducted in the academic year 2022-23. Certificate courses on "Basic Course in MATLAB" and "Typesetting using LATEX" were conducted with Dr. Mary George and Mr. Jijo Joy respectively as course coordinators.



PEER TEACHING

To promote effective teaching skills and foster a thorough grasp of subjects, the incorporation of peer instruction is actively promoted in all classes. Peer teaching is executed in two ways: one under teacher supervision and the other autonomously in the absence of teachers. Enthusiastic students seeking to engage in this method receive extra assistance to prepare for their teaching responsibilities, and the subjects taught are selected by students themselves, taking into account their peers' requests.



INDEPENDENCE DAY CELEBRATIONS

In observance of Independence Day, our department arranged competitions in Pencil Drawing and Essay Writing on August 16, 2022. The students from our department showed great enthusiasm by actively participating in these contests



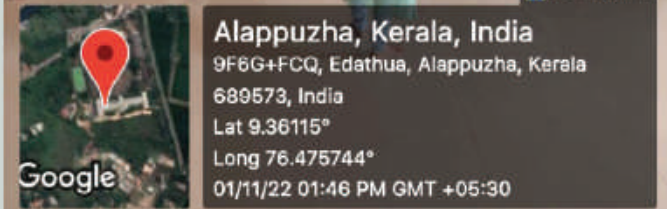
ONAM CELEBRATIONS

The department's Onam celebrations took place on 1st September 2022. Sri Jogy Joseph, the Principal in-charge, and Dr. Mary George delivered the Onam message. Prof Dr. Indulal G. greeted the audience. The event featured Onappattu, Thiruvathira and a variety of entertaining games as part of the festive activities



INTER DEPARTMENT QUIZ COMPETITIONS

To commemorate Kerala Piravi, the department held a quiz competition on November 1, 2022. Students from various departments displayed remarkable enthusiasm by actively taking part in the competition.



Alappuzha, Kerala, India
9F6G+FCQ, Edathua, Alappuzha, Kerala
689573, India
Lat 9.36115°
Long 76.475744°
01/11/22 01:46 PM GMT +05:30

STUDY TOUR

From the 12th to the 16th of February 2023, an yearly excursion was arranged for the graduating final-year students. A group of 31 students from the batch embarked on a journey to explore Waynad, Coorg, and Belur. Prof Dr. Indulal G and Ms. Deena C Scaria served as accompanying supervisors.



ABSCISSA

The Mathematics Department hosted its annual Mathematics Fest, ABSCISSA, on February 1, 2023. The program was inaugurated by Principal in - charge Sri Jogy Joseph, and the welcome address was delivered by Sri Jijo Joy, the Association President. ABSCISSA featured a wide range of competitions, including paper presentation contests in which nine department teams participated. Additionally, the event included competitions in Sudoku, Rubik's Cube, Codebreaker Word Puzzles, a Quiz competition, and a Treasure Hunt. Dr. Lakshmi Vijayan delivered a felicitation address.





PI DAY CELEBRATIONS

A Quiz competition was arranged by the department on March 14 2023 as part of the International Pi Day celebrations, and the department's students exhibited high levels of enthusiasm and active participation during the event. Additionally, Arya Sasidharan and Preethi Kumari, both I MSc students, delivered a lecture on the history of Pi.



YORUM

The Department's arts festival for the academic year 2022-2023 was celebrated on March 15, 2023. The students enthusiastically engaged in a variety of written and stage competitions. The Championship title was secured by the Third Year Degree students.



ACADEMIC COLLABORATION

On July 29, 2022, the Department of Mathematics at St. Peter's College in Kolenchery formally established an academic collaboration with the Department of Mathematics at St. Aloysius College in Edathua. This partnership signifies a significant step towards fostering cooperation and sharing academic resources between the two institutions, benefiting both students and faculty members in the field of mathematics.



Kolenchery, Kerala, India
St. Peter's College, Kolenchery, Kochi - Madurai - Dhanushkodi Rd,
Kolenchery, Kerala 682310, India
Lat 9.975897°
Long 76.459376°
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INVOLVEMENT IN COLLEGE ACTIVITIES

COLLEGE UNION ELECTION

The College Union Election was held on 29th November 2022. Second year B.Sc. student Mr. Sreejith Subash was elected College Union Chairman. The following were the class representatives.

1. Mr. Abhijith T H & Ms. Gopika P - I BSc
2. Mr. Sreejith Subash. & Ms. Soubhagya P S - II BSc
3. Mr. Ajin V Joseph B & Ms. Reena Philip - III BSc
4. Mr. Akshay Das & Ms. Sruthy S - II MSc

CHRISTMAS CELEBRATION

The staff and students came together with great enthusiasm to celebrate Christmas on December 23, 2022. Students from the department actively joined in competitions for crib and star making. Ms. Gangamol G and Ms. Megha K S represented the department in Angel and Santa Clause competitions respectively. The department won the first prize in Santa Clause and second prize in Christmas Carol Competitions. The department head, Dr. Mary George cut the Christmas cake and delivered the Christmas message on the occasion.



SPORTS COMPETITIONS

The students actively involvement in the inter-departmental competitions during College Sports Day. The team comprising of girl students for our department secured second prize in volleyball competition.



ARTS FESTIVAL

The college's arts festival for the academic year 2022-2023 took place on March 23, 2023. The students from various departments enthusiastically engaged in both written and stage competitions, as well as in captivating stage performance.



STUDENTS OF THE OUTGOING MSC BATCH



STUDENTS OF THE OUTGOING BSC BATCH



STUDENT'S ACHIEVEMENTS (2022 -2023)

PG FEST

The department's postgraduate students actively engaged in the 'Izredna', inter-departmental PG fest held on March 2, 2023. Department of Mathematics proudly achieved the third position.



The prize winners are

Pencil Drawing

First prize -Mr. Ben Rose Thomas

Pencil Drawing

Third prize- Ms. Sreelekshmi S

Malayalam Poem Writing

Second prize - Ms. Preethi Kumari P

Spot Dance

Third prize - Ms. Helana Ancy P A

Group Dance

Second prize - II M.Sc. Mathematics

Treasure Hunt

Second prize - II M.Sc. Mathematics

Power point presentation

Second prize - I M.Sc. Mathematics

ALOYSIAN EXEMPLAR

Aloysian Exemplar is the prestigious competition held every year to identify the best 5 outgoing UG and PG students. The competition is conducted in 5 stages and it identifies the best outgoing students who are extremely good in both academic and extra-curricular activities. During the year there were close to 100 contestants in the first round and of which 10 students were selected for the final stage round. Ms. Reema Paul and Ms. Aadhila M. of the department were selected to the final stage round. The final round was held on 16th March, 2023. The department is proud that Ms. Reema Paul of 2nd M.Sc. Mathematics won the 'Aloysian Exemplar' title.



WOMEN'S DAY

Women's day celebrations were conducted in the college under the leadership of KSWDC -Women's Cell on 17th March 2023. Ms. Megha Gireesh of 3rd BSc won the title of "Nasrani" and Ms. Santra C S of 3rd BSc won the first runner up position in " Miss Aloysius". Ms. Aliya M of 3rd BSc represented the department in "Monchathi" competition.



Congratulations

Congratulations to the brilliant minds from the Department of Mathematics at St. Aloysius College, Edathua, for their outstanding performance in the university examinations! Your hard work and dedication have paid off, and we're so proud of your remarkable achievements. Keep shining in the world of numbers and equations!!



B.SC. MATHEMATICS



M.SC. MATHEMATICS

NCC AWARDS

Ms. Gayathri Devi S of the 2nd BSc Mathematics selected for Pre Republic Day NCC Camp 2023. Ms. Santra C S of the 3rd year BSc Mathematics received 'Best Spirited Cadet, Ms. Parvathy M Kaimal of the 3rd year BSc Mathematics received ' Best Firer(SW) in ATC and Mr. Anand G Kumar of the 3rd year BSc Mathematics received ' Best Firer(SD) in ATC



COLLEGE DAY

College Day of the academic year 2022 - 23 was held on 27th March 2023. The following students of the department received scholarships for their academic achievements.

Ms. Parvathy M Kaimal	Highest marks in Part II Hindi (III BSc)
Ms. Fathimathul Hind M	Highest marks in Part II Malayalam(III BSc)
Ms. Azeela Abdul Rahim	Highest marks in Part II Malayalam(II BSc)
Ms. Gayathri Devi S	Highest marks in Part II Malayalam(II BSc)



PROFICIENCY PRIZE FOR STUDENTS

Sl. No.	Name of the Student	Prize
1	Krishnapriya K	Overall topper in I Semester CBCS B.Sc. Examination, June 2022
2	Krishnapriya K	For securing 100% marks in Mathematics in I Semester CBCS B.Sc. Examination, June 2022
3	Harikrishnan S	For securing 100% marks in Statistics in I Semester CBCS B.Sc. Examination, June 2022
4	Krishnapriya K	For securing 100% marks in Statistics in I Semester CBCS B.Sc. Examination, June 2022
5	Krishnapriya K	Overall topper in II Semester CBCS B.Sc. Examination, October 2022
6	Krishnapriya K	Overall topper in III Semester CBCS B.Sc. Examination January 2023
7	Aathira S	Overall topper in IV Semester CBCS B.Sc. Examination, August 2022
8	Aathira S	For securing 100% marks in Mathematics in IV Semester CBCS B.Sc. Examination, August 2022
9	Rossana James	For securing 100% marks in Mathematics in IV Semester CBCS B.Sc. Examination, August 2022
10	Aathira S	For securing 100% marks in Statistics in IV Semester CBCS B.Sc. Examination, August 2022
11	Rossana James	For securing 100% marks in Statistics in IV Semester CBCS B.Sc. Examination, August 2022
12	Parvathy M Kaimal	For securing 100% marks in Statistics in IV Semester CBCS B.Sc. Examination, August 2022
13	Parvathy M Kaimal	Overall topper in V Semester CBCS B.Sc. Examination, November 2022
14	Nighil Prakash	Overall topper in VI Semester CBCS B.Sc. Examination, March 2023
15	Anju Andrews	Overall topper in I Semester PGCSS M.Sc. Examination, November 2021
16	Archana Babu	Overall topper in II Semester PGCSS M.Sc. Examination, January 2022
17	Archana Babu	Overall topper in III Semester PGCSS M.Sc. Examination, April 2022
18	Mariya Varghese	Overall topper in IV Semester PGCSS M.Sc. Examination, August 2022



RESEARCH PAPERS

Prof Dr. Indulal G

1. Liju Alex, Indulal G, Zagreb index of a new sum of graphs, Ural Mathematics Journal
2. Liju Alex, Indulal G, On a conjecture on edge Mostar index of bicyclic graphs, Iranian Journal of Mathematical Chemistry

Jijo Joy

1. A Discrete Time Perishable Inventory System Under (s, S) Policy and Age-Dependent -Requests Communications in Computer and Information Science (Springer) May 2023 Vol. 1803, pp 189-199
2. A Discrete Time Inventory System with Perishable Items and Age-Dependent Demands. ITMM 2022, Uzbekistan, 25-20 October 2022

CONFERENCE/WORKSHOPS PRESENTATION

Prof Dr. Indulal G

1. Delivered an invited talk on 'Graph Characterisation by Spectrum' in the 18th Annual conference of Academy of Discrete Mathematics and Applications (ADMA) held at Vellalar College for Women, Erode on 10.6.2022
2. Delivered an invited talk on 'Fundamentals of Spectral Graph Theory' in the R Balakrishnan Endowment Lecture at Periyar University, Salem on 14.10.2022
3. Delivered an invited talk on 'Spectral Characterisation of Graphs' in the International Conference on Algebra and Discrete Mathematics at St Berchman's College in connection with its Centenary Celebrations on 14.12.2022
4. Delivered an invited talk on 'Graph Structure from Its Spectrum' in the National Workshop on Discrete Mathematics at Catholicate College, Pathanamthitta sponsored by Mahatma Gandhi University on 20.12.2022
5. Delivered an invited talk on 'Spectral Characterisation of Graphs' in the International Conference in Recent Advances in Graph Theory and Allied Areas ICRA GAA 2023 at St Aloysius College, Elthuruth, Thirur on 03.02.2023
6. Delivered an invited talk on 'Relevance of Mathematics in the Digital Era' in the Prof C. Kochummen Memorial Lecture Series organised by the Department of Mathematics, Mar Thoma College, Tiruvalla on 07.03.2023

Dr. Jubin Antony

1. Resource person for the one-day workshop on "Data Analysis Using SPSS Software" at Mar Gregorios College Punnappa on 14.02.2023
2. Resource person for the one-day seminar on "Documentation Pre-requisites for NAAC Accreditation" at Mar Gregorios College Punnappa on 26.05.2023