LOYOLA COLLEGE, CHENNAI-600034 DEPARTMENT OF MATHEMATICS (SHIFT-II) LOYOLA MATHEMATICS ASSOCIATION SHIFT 2 (LMA S2 2022-2023)

| Name of the event | $:$ | Factoria-2023 (Intercollegiate Mathematics Festival) |
| :--- | :--- | :--- |
| Date | $:$ | $27-01-2023$ |
| Time | $:$ | $09.30 \mathrm{am}-04.00 \mathrm{pm}$ |
| Venue | $:$ | CET-12 (Commerce \& Economics Block) |

## REPORT

## Objective

To give the exposure in mathematics to the students of the neighboring colleges and make them competitive.

## Summary

* The registration began at 8.30 am .
* The inaugural function was held between 09.30 am and 10.15 am .
* Dr. Y. Sarada, Professor, Department of Mathematics, CEG campus, Anna University, Chennai was the chief guest of the inaugural function.
* A total number of 221 UG and PG students from 10 neighboring colleges participated in the festival.
* A total number of 9 competitions were organized among which 2 were on stage events, 6 were off stage events and one online event.
* The participants actively participated in all the events and showcased their skills and talents.
* The valedictory function was held at 3.00 pm .
* Dr. M. Parthiban, Librarian, Loyola College, Chennai was the chief guest of the valedictory function.
* The prize winners of all the events were given certificates and shields.
* The overall championship was won by the department of mathematics (Shift-I) of the Madras Christian College, Chennai.


## Inaugural Function

[Venue: CET-12, Time: 09.30 am - 10.15 am]

- The inaugural function began at 9 am in the venue.
- The chief guest of the function was Dr. Y. Sarada, Professor, Department of Mathematics, CEG Campus, Anna University, Chennai.
- Dr. J. Janet Sheeba, the coordinator of the department welcomed the chief guest and the students participated from various colleges.
- As a sign of igniting the knowledge, a lamp was lit by Dr. Y. Sarada, the chief guest, Dr. J. Janet Sheeba, Coordinator of the department, Dr. S. Iruthaya Raj, the President, Prof. A. Christopher, the Vice President, Mr. Sahaya Jeon Ronaldo,
the Secretary, Mr. Barath, the Cultural Secretary and Mr. Dhanush, the Sports Secretary.
- Dr. S. Iruthaya Raj, the President of the association explained the theme of Factoria-2023 to the audience.
- Prof. D. Kumanan introduced the chief guest to the audience.
- The chief guest in her inaugural address encouraged and motivated the students to learn mathematics from her life history. She also gave some applications of stochastic models being used in day-to-day life.
- Finally, the vote of thanks was delivered by Mr. Sahaya Jeon Ronaldo, the secretary of the Loyola Mathematics Association LMA S2.
- After the inaugural function the participants were instructed about the venues of various events to be conducted.



## Math Exposia (Paper Presentation)

[Venue: CET-12, Time: 10.30 am - 11.30 am ]

Event type : On stage<br>Title of the presentation : Applications of Mathematics in AI<br>Faculty in-charge and Chair-persons: Dr. T. Bharathi<br>Dr. S. Ruth Julie Kavitha<br>Event coordinator : Mr. Chandrashekar Iyer S (20-UMT-320)

- Papers were received from the participants through Google forms.
- 4 teams were shortlisted and were invited through email to present their papers on the day of the function.
- Each team was given 6 minutes for presentation and 2 minutes for Questions and Answers session.
- The participants presented topics well with applications in trends.


## Math Master (Quiz)

[Venue: CET-12, Time: $11.45 \mathrm{am}-01.00 \mathrm{pm}$ ]

| Event type | $:$ | On stage |
| :--- | :--- | :--- |
| Faculty in-charge and Quiz Master | $:$ | Dr. S. Iruthaya Raj |
| Event coordinator | $:$ | Mr. Vivilia Vasan V (20-UMT-227) |

- 12 teams with 3 members each in a team participated in the event.
- 36 students from 8 different colleges participated in total.
- A preliminary round was conducted and 5 teams were qualified to the main rounds.
- The main rounds included: Finding the odd one out, Saying true or false, Identifying correct answers, Identification of graphs, Simple calculations, Finding logial errors and etc.
- Questions were asked from simple arithmetic, calculus, real analysis, complex analysis, classical algebra, abstract algebra, linear algebra, analytical geometry, differential equations and related subjects.
- Participants actively participated in all the rounds.


## Mathletics (Olympiad)

[Venue: JF-16, Time: $10.30 \mathrm{am}-12.00 \mathrm{pm}$ ]

Event type : Off stage
Faculty in-charge : Dr. J. Janet Sheeba
Event coordinator : Mr. Harish J (20-UMT-225)

- A total number of 25 teams with 1 participant per team participated. As per the rules, a maximum of 3 members participated per shift per college individually.
- 10 different colleges parcipated in the event.
- This event was to test the analytical and problem solving skills of an individual.
- 50 number of questions were asked.
- The duration of the test was 60 minutes.
- The questions were asked from number theory, calculus, analysis, classical algebra, abstract algebra, linear algebra, analytical geometry, differential equations and other relevant subjects.


## Mystery Quest (Treasure Hunt)

[Venue: JF-22, Time: $10.30 \mathrm{am}-12.00 \mathrm{pm}$ ]
Event type : Off stage
Faculty in-charge: Dr. J. Geno Kadwin
Student in-charge: Mr. Issac Surya G (20-UMT-323)

- A total number of 12 teams with a maximum of 4 students per team participated in the event.
- 50 students from 8 different colleges participated.
- Three different levels of rounds were conducted to find the mystery.
- The event was planned in such a way that hints in various levels were to be found by mathematical calculations, analytical and logical skills.


## Sequentia (Math Relay)

[Venue: JF-20, Time: $10.30 \mathrm{am}-12.00 \mathrm{pm}$ ]

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Event type : Off stage
Faculty in-charge : Prof. D. Kumanan
Event coordinator : Mr. Boga Nanda Kishore (20-UMT-218)
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- A total number of 10 teams consisting of 3 students per team participated.
- 30 students from 7 different colleges participated.
- Three different levels of rounds were conducted.
- Each round of the event was conducted in the following way: The three members of each team were seated in three successive rows. The first set of questions was given to the person-1 of each team. He was supposed to solve and give the final answer to person-2 of his team and at the same time the second set of common questions would be given to person-2. These questions were framed to use the final answer received from the person-1. Similarly, after solving the questions, the person-2 had to give the final answer to the person-3, and simultaneously, the person-3 was given the third set of questions. He had to find the final answer. The team which got the final answer first with minimum duration won the event.


## Math Enact (Dumb Charades)

[Venue: JF-18, Time: $10.30 \mathrm{am}-12.00 \mathrm{pm}$ ]
Event type : Off stage

Faculty in-charge : Dr. S. Ruth Julie Kavitha
Student in-charge : Mr. Archisman Panda (20-UMT-330)

- A total number of 12 teams consisting of 2 students per team participated.
- 24 students from 8 different colleges participated.
- One participant will give the clue of the word to be found by action and not by words, and the other person has to find and say the correct word.
- Both the participants must know the mathematical concepts and linking skills to find out the word hidden.
- The participants participated actively.


## Artgebra (T-shirt painting)

[Venue: JF-21, Time: $10.30 \mathrm{am}-12.00 \mathrm{pm}$ ]

Event type : Off stage
Theme of painting : Equation
Faculty in-charge : Dr. S. Maria Jesu Raja
Student in-charge : Mr. Piravin B (21-UMT-224)

- A total number of 9 teams with 2 students per team participated in the event.
- 18 students from 7 different colleges participated.
- The participants brought T-shirts, and painting materials as per the rules.
- They were instructed to paint for the theme "Equation".
- They beautifully and mathematically painted with creativity.


## Math Injection (Word Master)

[Venue: CET-12, Time: $02.00 \mathrm{pm}-3.00 \mathrm{pm}$ ]
Event type : Off stage
Faculty in-charge : Prof. A. Christopher
Student in-charge: Mr. Krishnakanth S (21-UMT-309)

- A total number of 11 teams consisting of 2 students per team participated.
- 22 students from 7 different colleges participated.
- One participant will be given a word by the organizers and he/she has to give hint to receive the same word from the other participant with a one-to-one conversation and with a limited number of attempts.
- Both the participants must know the mathematical concepts and linking skills to find out the word.


## Math Click (Photography)

## Event type

Theme of photography
Faculty in-charge
Student in-charge
: Online
: Sequences and series
: Dr. S. Iruthaya Raj
: Mr. Ronaldin Aravind J (20-UMT-201)

- A total number of 9 teams with 1 student per team participated in the event from 8 different colleges.
- This was an online event.
- The photographs were received from the participants through Google form.
- Participants by using mathematical skills and technical skills took photo for the theme with creativity.
- The winners of the event were invited through email to receive prizes and certificates on the day of the function.

Number of Participants

| Name of the College |  |  |  | Mystery Quest |  |  |  |  |  | $\begin{gathered} \text { ت̃ } \\ \stackrel{\text { n }}{ } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MOP Vaishnav College (Shift-1), Chennai | 3 | 2 | 3 | 4 | 3 | 2 | 2 | 2 | 1 | 22 |
| DG Vaishnav College (Shift-1), Chennai | 3 | - | 3 | 4 | 3 | 2 | 2 | 2 | 1 | 20 |
| DG Vaishnav College (Shift-2), Chennai | 3 | 1 | - | 4 | - | - | - | - | - | 8 |
| Madras Christian College (Shift-1), Chennai | 3 | 2 | 2 | 4 | 3 | 2 | 2 | 2 |  | 20 |
| Madras Christian College (Shift-2), Chennai | 3 | - | 3 | 4 | - | 2 | 2 | 2 | 2 | 18 |
| Ethiraj College for Women (Shift-1), Chennai | 3 | - | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 19 |
| Ethiraj College for Women (Shift-2), Chennai | 3 | - | 3 | 7 | 6 | 4 | 4 | - | - | 27 |
| SDNB College for Women (Shift-1), Chennai | - | - | 1 | 4 | - | - | 2 | - | 1 | 8 |
| SDNB College for Women (Shift-2), Chennai | 3 | - | 1 | 4 | 3 | 2 | 2 | 2 | - | 17 |
| Quaid-E-Millath Government College for Women (Shift-1), Chennai | 3 | - | 3 | 4 | 3 | 2 | 2 | 2 | - | 19 |
| Quaid-E-Millath Government College for Women (Shift-2), Chennai | 3 | - | - | - | 3 | 2 |  | 2 | - | 10 |
| Women's Christian College (Shift-1), Chennai | 3 | 2 | 3 | 4 | 3 | 2 | 2 | 2 | 1 | 22 |
| Sriram College of Arts and Science (Shift-1), Thiruvallur | 3 | - | - | 4 | - | 2 | - | - | - | 9 |
| Theivanai Ammal College for Women (Shift-1), Viluppuram | - | - | - | - | - | - | - | - | 1 | 1 |
| St. Thomas College of Arts and Science (Shift-1), Chennai | - | - | - | - | - | - | - | - | 1 | 1 |
| Total | 36 | 7 | 25 | 50 | 30 | 24 | 22 | 18 | 9 | 221 |

## Valedictory Function

[Venue: CET-12, Time: $03.00 \mathrm{pm}-04.00 \mathrm{pm}$ ]

- The participants of various events from neighbouring colleges participated in the valedictory function.
- The chief guest of the function was Dr. M. Parthiban, Librarian, Loyola College, Chennai.
- Welcome address was delivered by Dr. T. Bharathi.
- The chief guest was introduced by Dr. S. Ruth Julie Kavitha.
- The chief guest Dr. Parthiban delivered the valedictory address in which he appreciated the participants and prize winners of all the events.
- He also insisted the importance of learning mathematics and using various resources for reading books.
- Feedback session was held during the valedictory function.
- The chief guest along with the respective faculty in-charge honoured the prize winners of all the events by giving them shields and certificates.
- The Rolling Trophy for the overall championship of Factoia-2023 was won by the Department of Mathematics (Shift-I) of Madras Christian College, Chennai.
- Vote of thanks was proposed by Dr. S. Iruthaya Raj, the President of the Loyola Mathematics Association Shift 2.



## Programme Outcome

The participants of various colleges were given some mathematical inputs through their participation; and they shared their knowledge and skills directly and indirectly with others through these events. The focus on learning mathematical subjects in depth was motivated out of this intercollegiate mathematics festival.

Office bearers

1. Mr. S. Sahaya Jeon Ronaldo (20-UMT-207)
2. Mr. V. Magesshwaran (21-UMT-326)
3. Mr. R. Barath
4. Mr. D. Dhanush
(20-UMT-335)
(20-UMT-226)

Secretary
Joint Secretary
Cultural Secretary
Sports Secretary

## Faculty members

1. Dr. J. Janet Sheeba (Coordinator of the Department)
2. Dr. T. Bharathi
3. Dr. S. Iruthaya Raj (President of LMA S2 2022-2023)
4. Mr. F. R. Emmanuel
5. Mr. A. Christopher
(Vice President of LMA S2 2022-2023)
6. Mr. D. Kumanan
7. Dr. J. Geno Kadwin
8. Dr. S. Ruth Julie Kavitha
9. Dr. S. Maria Jesu Raja

Photo Gallery

2.3. Lighting the Lamp by the President Dr. S. Iruthaya Raj and the Vice President Prof. A. Christopher

2.4. Lighting the Lamp by the Secretary Mr. S. Sahaya Jeon Ronaldo and the Cultural Secretary Mr. R. Barath

2.5. Lighting the Lamp by the Sports Secretary Mr. D. Dhanush

3. Introduction of the Chief Guest of Inaugural function

Dr. Y. Sarada by Prof. D. Kumanan

4.1. Honouring Chief Guest by the Coordinator Dr. J. Janet Sheeba

4.2. Presentation of a Memento to the Chief Guest by the Association Secretary Mr. S. Sahaya Jeon Ronaldo

5. Inaugural Address by the Chief Guest Dr. Y. Sarada

6. Vote of Thanks in the Inaugural function by the Association Secretary Mr. S. Sahaya Jeon Ronaldo

7. Participants in the Inaugural Function

8.1. Quiz Competition (Math Master) Prelims

8.2. Quiz Competition (Math Master) Main Rounds

9.1. Paper presentation (Math Exposia)

9.2. Paper presentation (Math Exposia)

10.1. Math Olympiad (Mathletics)

10.2. Math Olympiad (Mathletics)

11.1. Treasure Hunt (Mystery Quest)

11.2. Treasure Hunt (Mystery Quest)

12.1. Math Relay (Sequentia)

12.2. Math Relay (Sequentia)

13.1. Dumb Charades (Math Enact)

13.2. Dumb Charades (Math Enact)

13.3. Dumb Charades (Math Enact)



15.1. T-Shirt painting (Artgebra)

15.2. T-Shirt painting (Artgebra)

15.3. T-Shirt painting (Artgebra)

16.1. Photography (Math Click) Online (Title-Sequences and Series)

16.2. Photography (Math Click) Online (Title-Sequences and Series)

17. Dignitaries in the Valedictory Function

18. Welcome Address in the Valedictory Function by Dr. T. Bharathi

19. Introduction of the Chief Guest of the Valedictory Function Dr. M. Parthiban by Dr. S. Ruth Julie Kavitha

20.1. Honouring the Chief guest of the Valedictory function

Dr. M. Parthiban by Dr. J. Geno Kadwin

20.2. Presentation of a Memento to the Chief Guest of the Valedictory Function Dr. M. Parthiban by the Cultural Secretary Mr. R. Barath

21. Valedictory Address by the Chief Guest Dr. M. Parthiban

22. Feedback by the Participants

23. Participants in the Valedictory Function

24.1. Prize Distribution (Quiz) First Prize (Madras Christian College, Shift-1)

24.2. Prize Distribution (Quiz) Second Prize (DG Vaishnav College, Shift-1)

24.3. Prize Distribution (Quiz) Third Prize (Madras Christian College, Shift-2)

25.1. Prize Distribution (Paper presentation) First Prize (MOP Vaishnav College, Shift-1)

25.2. Prize Distribution (Paper presentation) Second Prize (Madras Christian College, Shift-1)

25.3. Prize Distribution (Paper presentation) Third Prize (DG Vaishnav College, Shift-2)

26.1. Prize Distribution (Olympiad) First Prize (DG Vaishnav College, Shift-1)

26.2. Prize Distribution (Olympiad) Second Prize (SDNB College, Shift-1)

26.3. Prize Distribution (Olympiad) Third Prize (Quaid-E Millath College for Women, Shift-1)

27.1. Prize Distribution (Treasure Hunt) First Prize (Ethiraj College for Women, Shift-2)

27.2. Prize Distribution (Treasure Hunt) Second Prize (Ethiraj College for Women, Shift-1)

27.3. Prize Distribution (Treasure Hunt) Third Prize (Quaid-E Millath College for Women, Shift-1)

28.1. Prize Distribution (Math Relay) First Prize (Ethiraj College for Women, Shift-2)

28.2. Prize Distribution (Math Relay) Second Prize (Madras Christian College, Shift-1)

28.3. Prize Distribution (Math Relay) Third Prize (Ethiraj College for Women, Shift-1)

29.1. Prize Distribution (Dum Charades) First Prize
(Madras Christian College, Shift-1)

29.2. Prize Distribution (Dum Charades) Second Prize (Ethiraj College for Women, Shift-1)

29.3. Prize Distribution (Dum Charades) Third Prize (Madras Christian College, Shift-2)

30.1. Prize Distribution (Math Injection) First Prize
(Madras Christian College, Shift-1)

30.2. Prize Distribution (Math Injection) Second Prize (Women's Christian College, Shift-1)

30.3. Prize Distribution (Math Injection) Third Prize (Ethiraj College for Women, Shift-2)

31.1. Prize Distribution (Painting) First Prize (SDNB College, Shift-2)

31.2. Prize Distribution (Painting) Second Prize (MOP Vaishnav College, Shift-1)

31.3. Prize Distribution (Painting) Third Prize (Ethiraj College for Women, Shift-1)

32. Prize Distribution (Photography) Second Prize (Ethiraj College for Women, Shift-1)

33. Announcement of the Overall Championship by the Coordinator Dr. J. Janet Sheeba

34. Trolling Trophy of LMA S2

35. Overall Championship

Madras Christian College (Shift-1)


## Loyola College (Autonomous), Chennai-34 Department of Mathematics (Shift-II)

Layola Mathematics Asseciation Shiff 2 (2022-2023)

presents

(an intercollegiate Department Festival)


Mr. S. Sahaya Jeon Ronaldo (Secretary)

Dr. S. Iruthaya Raj (President)

Prof. A. Christopher (Vice President)

Dr. J. Janet Sheeba (Coordinator)
］Registration is to be done online only．Spot registration is not entertained．
I Separate registration must be done through the specific registration link for each event．
$\int$ One registration is to be done by one college for an event．If the college runs two shifts，Shift－I and Shift－II students can register separately．
］On the day of the programme，participants are asked to bring their identity cards and bonafide certificates for attending the department festival from the Principal of the College or the Head of the department without fail to enter into the campus of Loyola College．
［ Inauguration will begin at 9.00 am ．Participants are asked to report to the Registration desk between 8.30 am and 9.00 am ．Also they are asked to be in the allotted venue only．
［ Since events will be held parallelly，participants are advised to refrain from registering for multiple events．
［ Vulgarity in any form will lead to disqualification of the team．
［ The decision of the judges will be the final in each event．
［ There will be two on stage events and seven off stage events．A team scoring high marks and having participation in at least one on stage event and at least three off stage events，and winning in at least one event is eligible to win the Trophy．
］Certificates and prizes will be given to all the prize winners．
$!$
The deadline to register for all the events is $\jmath$ pm on 25 January 2023.
！For further details you can feel free to contact us．
Contact numbers： 9952229890 （Dr．S．Iruthaya Raj，President）
9884869302 （Prof．A．Christopher，Vice President）
9025243108 （Mr．S．Sahaya Jeon Ronaldo，Secretary）
Email address：factoria2023＠loyolacollege．edu

## On stage events

I Math Master
！Math Exposia

## Off stage events

／Mathletics
！Mystery Quest
！Sequentia
！Math Enact
！Math Injection
！Artgebra
！Math Click

] One team per shift can participate.
I Three members will be in a team.
Preliminary rounds will be conducted if required.
〕 Rules for various rounds will be given during the event.

[ Registration link: https://forms.gle/em8ZDUfAKuzGhu6K8

## Math Exposia (Paper presentation)

] One team per shift can participate.
Maximum of Two members can participate in a team.
I The title of the presentation is
"Applications of Mathematics in Artificial Intelligence"

[ Participants are asked to prepare the full paper with Title, Authors, Abstract, Introduction, Findings and References in word or pdf and submit the file.
[ Link to submit the full paper is https://forms.gle/VVBF6CxXM9ha6A1V9
] The deadline to submit the full paper is 5 pm on 25 January 2023.
Authors of the selected papers will be intimated through email before 12 pm on 26 January 2023.
[ Selected papers will be presented by the participants during the event.
! Time limit is 8 minutes (Presentation -6 minutes, Q \& A - 2 minutes).

## Mathletics (Olympiad)

Participants will take part in this event individually.
Maximum of Three members can simultaneously participate from one shift.
Rules will be given on the spot.
Registration link: https://forms.gle/hJt2BquSSJ6MD9sE8


## Mystery Quest (Treasure Hunt)

! One team per shift can participate.
] Maximum of Four members can participate in a team.
! Rules will be given on the spot.

[ Registration link: https://forms.gle/nUTbSyfZukgdxNNh7

## Sequentia (Math Relay)

! One team per shift can participate.
! Three members will be in a team.
! Rules will be given on the spot.
! Registration link: https://forms.gle/Pb1cF7p7TP8weewY8


## Math Enact (Dumb Charades)

! One team per shift can participate.
! Two members will be in a team.
] Rules will be given on the spot.

] Registration link: https://forms.gle/2uqrZF1gJTfhs9Bu5

## Math Injection (Word Master)

! One team per shift can participate.
! Two members will be in a team.
! One player will give the clue and the coplayer will guess the word.
! Further rules will be given on the spot.


Registration link: https://forms.gle/ARLnr3RfMixEfPSp8

## Antgebra (T-Shint painting)

One team per shift can participate.
! Two members will be in a team.
Participants have to bring T -shirts and materials for painting.
! Theme of the event will be given on the spot.

! Prizes will be given based on the creativity and the originality.
【 Registration link: https://forms.gle/3qa6d9SraBwkCosE7

## Math Click (Photography)

This is an online event.
Only one participant per shift can participate.
Theme of the event is "Sequences and series"
Mobile phones or DSLR cameras can be used to capture photos.


Only one photo should be submitted without editing.
Link to submit the photo is https://forms.gle/jTJKahb2BtPVVkVW8
Prizes will be given based on the creativity and the originality.
Winners will be intimated through email before 12 pm on 26th January 2023.

## Office Bearers

- Dr. J. Janet Sheeba (Coordinator of the Department)
- Dr. S. Iruthaya Raj (President)
- Prof. A. Christopher (Vice President)
- Mr. S. Sahaya Jeon Ronaldo (Secretary)
- Mr. V. Mageshwaran (Joint Secretary)
- Mr. R. Barath (Cultural Secretary)
- Mr. D. Dhanush (Sports Secretary)

