

(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

### LEAD TO ILLUMINATE



MATHEMATICS 2022-23



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

### **FACULTY OF MATHEMATICS**

S.NO.	FACULTY	DESIGNATION
1	Mr. Prashanth	COORDINATOR
2	Ms. Swapna	MEMBER
3	Mr. V Naveen Kumar	MEMBER



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

### **INDEX FOR THE ACADEMIC YEAR 2022-23**

S.NO	DATE	NAME OF THE EVENT	VENUE	NO OF PARTICIPANTS
1.	04-08-2022 to 20-08-2022	Certificate Course -MATLAB	LFDC	107
2.	09-09-2022 to 11-09-2022	International Conference on Mathematical Sciences and Emerging Applications in Technology	GITAM UNIVERSITY	01
3.	26-09-2022 to 30-09-2022	A Five-Day National Level Online PDP on Writing Research Articles in Mathematics & Statistics-	Google Meet	65
4.	09-11-2022 & 10-11-2022	Two- Day FDP on Mathematical & Computational Fluid Dynamics using Mathematics	Aurora Degree College	02
5.	16-11-2022	BIRLA PLANETARIUM	BIRLA Museum	100
6.	26-11-2022 to 28-11-2022	THREE DAY FACULTY INTERNATIONAL ONLINE WORKSHOP ON MATLAB MODELLING OF PHYSICAL SYSTEMS	Google Meet	02
7.	29-03-2023	SEMINAR ON VEDIC MATHEMATICS	Seminar Hall, LFDC	50
8.	11-05-2023	ATTENDED ONE DAY NATIONAL WORKSHOP ON NUMERICAL TECHNIQUES BY USING MATLAB	SARDAR PATEL COLLEGE, SEC	02



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

#### **CERTIFICATE COURSE ON MATLAB**

Name of the Event: Certificate course

**Topic: MATLAB** 

**Date:** 4th - 20th August 2022 **Venue: Computer Lab, LFDC** 

Participants: B.Sc. final year students

**B.Sc. Participants:** 105

The Faculty of Mathematics, Department of Physical Sciences organised a certificate course on "MATLAB" from August 4th to 8th, 2022, Computer Lab, LFDC. The resource person for this certificate course was Prof. K. Srinivasa Rao, HOD, Department of Mathematics, SCSVMV University, Kanchipuram, Tamil Nadu. Sir started a session with the definition of MATLAB and basic operations in MATLAB. He also explained in detail all the windows in MATLAB and gave an assignment to solve problems to understand the basic concepts in the MATLAB course, which include concepts like Arrays, Matrices and Linear Indexing. In addition to this, sir explained about Row operations, Column operations, removing rows and Columns, Swapping Rows and Columns and sorting, solutions for System equations, then he started basic introduction on Plotting which includes 2-D and 3-D plotting, tools available for manual plotting which can plot Cycloids, Epicycloids & Hypocycloids.





Ms. P. Jayanthi, Reddy, Vice Principal, felicitating the resource person, Prof. K. Srinivasa Rao, for the certificate course on "MATLAB"



Ms. P. Jayanthi Reddy, Vice- Principal, LFDC Faculty from Dept. of Mathematics, Prof. K. Srinivasa Rao, resource person, is having a photo session with the MSCS III-year students





Prof. K. Srinivasa Rao explaining how to use commands in MATLAB



Mr. M. Prashanth, Ms. T. Swapna, Mr. V. Naveen Kumar, with the resource person Prof. K. Srinivasa Rao, Dept. of Mathematics, SCSVMV University, Kanchipuram, Tamil Nadu.



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

#### INTERNATIONAL CONFERENCE

Name of the Event: International Conference

**Topic: Mathematical Sciences and Emerging Applications in Technology** 

**Date:** 9th - 11th September 2022

Venue: Gitam Deemed to be University, Hyderabad

Participants: Mr. M. Prashanth

No. of Participants: 01

Mr. M. Prashanth, faculty of Mathematics attended the International Conference on Mathematical Sciences and Emerging Applications in Technology organised by Gitam School of Science, Hyderabad in association with the Andhra Pradesh and Telangana Society for Mathematical Sciences from September 9th to 11, 2022. The chief guest for the conference was Prof. Ch. Gopal Reddy, Vice-Chancellor, Mahatma Gandhi University, Nalgonda. He said that, in India, since ancient times zero was invented, and people used to write the Pachanga's predicting the eclipse with the exact time by using mathematical knowledge. In Astrology and Astronomy, Mathematical Applications are also involved. Prof. N. Kishan, President, APTSMS., spoke on the history of APTSMS and its activities. Prof. D. S. Rao, Pro vice-chancellor, GITAM, Hyderabad, delivered the welcome note felicitated the guests and released the conference souvenir.





Prof. Ch. Gopal Reddy, Vice-Chancellor, Prof. N. Kishan, President, APTMS lightening the lamp in the conference.



Prof. N. Kishan, President, APTMS along with the members having a photo session in the conference.



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

### Writing Research Articles in Mathematics and Statistics

Name of the Event: Five Day National Level Online PDP

**Topic: Writing Research Articles in Mathematics and Statistics** 

**Date:** 26th - 30th September 2022

Collaboration: PG and Research, Auxilium College, Gandhi Nagar, Vellore, Tamil

Nadu

**Venue/ Platform: Google Meet** 

**Participants: Faculty from the various institutions** 

No. of Participants: 65

A Five-Day National Level Online PDP on "Writing Research Articles in Mathematics & Statistics" was jointly organised by the faculty of Mathematics, Little Flower Degree College, Uppal, Hyderabad, Telangana & PG, and Research Department of Mathematics, Auxilium College (Autonomous), Gandhi Nagar, Vellore, Tamil Nadu, from 26.09.2022 to 30.09.2022. The main objective of the program was to enhance the knowledge in writing articles and publishing them in journals.

The resource person for day one was Dr. Sunder Ram, HOD, Dept. of Mathematics, Chaitanya Deemed to be a university. He gave a lecture on Fluid Dynamics for Researchers by giving the differences between pure and applied Mathematics and mainly focusing on the areas of Mathematics which have a lot of scope in the field of research.

The resource person for day two was Dr. Ajay Semalty, University Swayam, Coordinator, HNB Garhwal University mainly focused on drafting a manuscript which is an essential aspect of research, and elucidated in detail the basic traits of writing research papers. The research process involves critical thinking, first draft, multiple drafts, etc., which plays a vital role in writing a good research article for the journal.

The resource person of the day three was Dr. Indrani Pramodh Kelkar, Subject Admin, Engineering & Science, Tata Consultancy Services, TCSION, Hyderabad. She gave a lecture on the topic "Mathematical Modelling for Research". Her talk gave a deep insight into Mathematical modelling and its type with many real-world examples.



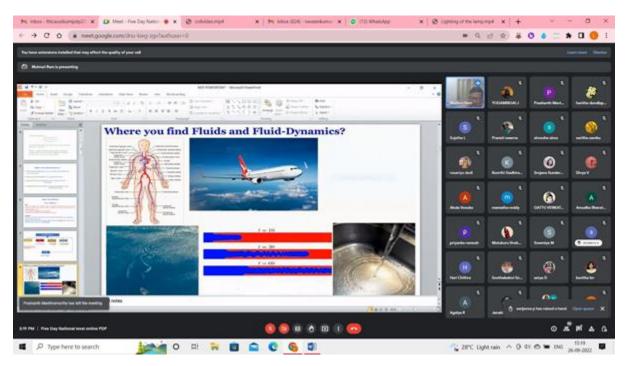
(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

The resource person of the day was V.V. Hara Gopal, Professor, Department of Statistics, Osmania University, Hyderabad, Telangana. He gave a lecture on the topic "Applications of Regression and Stochastic Modelling." His lecture focused on Simple linear regression and Multiple linear regression.

The resource person of the day was Dr. Indra Rajasingh, Adjunct Professor of Mathematics, Saveetha School of Engineering, Chennai. She gave a lecture on the topic "Research Problems in Graph Theory" Her talk focussed on different types of graphs namely chemical graphs, molecular graphs, and different kinds of networks namely interconnection networks, butterfly networks, etc.,



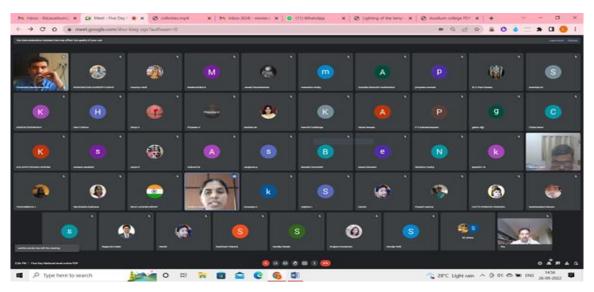
Dr. M. Sunder Ram, HOD, Dept. of Mathematics delivering a lecture on "Fluid Dynamics for Researchers "in Five Day National Online PDP.



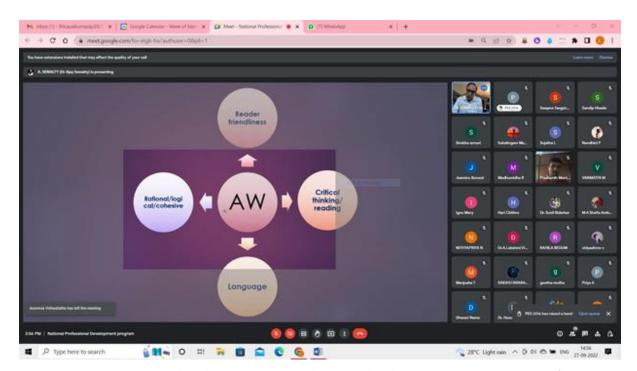
(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society



Mr. M. Prashanth, Faculty of Mathematics welcoming the participants in the session and introducing the Resource Person Dr. M. Sunder Ram, HOD, Dept. of Mathematics in A Five-Day National Level Online Professional Development Program.



Dr. AJAY SEMALTY, University Swayam coordinator delivering a lecture on "Nuances of Research
Article Writing "in Five Day National Online PDP.



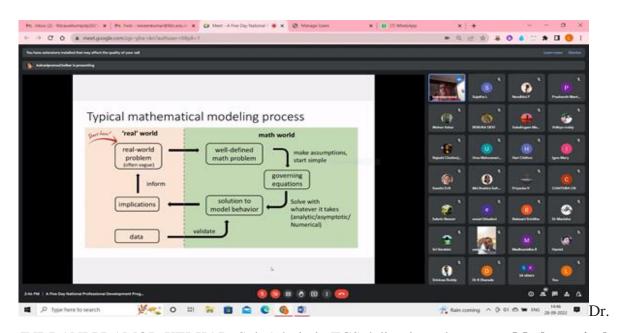
(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society



Dr. AJAY SEMALTY, University Swayam coordinator delivering a lecture on "Flow of action in AW "in Five Day National Online PDP.



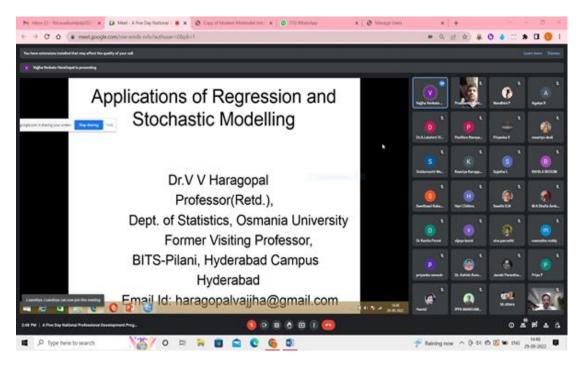
INDRANI PRAMOD KELKAR, Sub Admin in TCS delivering a lecture on **Mathematical Modelling process** in Five Day National Online PDP.



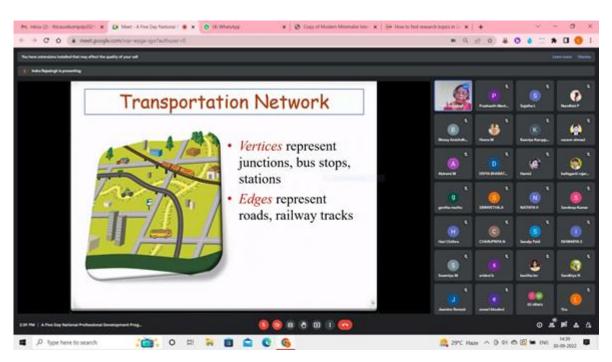
(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society



PROF. V.V HARA GOPAL, (Retired) Dept. of Statistics delivering a lecture on "Applications of Recursion and Stochastic Modelling "in Five Day National Online PDP.

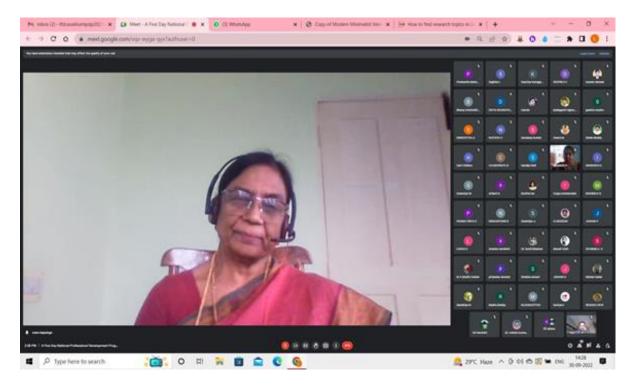


Dr. INDIRA RAJASINGH, delivering a lecture on "Research Problems in Graph Theory "in the Five Day National Online PDP.



(Affiliated to Osmania University)
Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society



Dr. INDIRA RAJASINGH, clarifying the queries in the questionnaire session **in** Five Day National Online PDP.



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

# TWO DAY FACULTY DEVELOPMENT PROGRAMME ON

# MATHEMATICAL AND COMPUTATIONAL FLUID DYNAMICS USING MATLAB

Name of the Event: Two Day Faculty Development Program

Topic: Mathematical and Computational Fluid dynamics using MATLAB

**Date:** 9th - 10th November 2022

Venue: Aurora Degree & PG college, Hyderabad. Participants: Mr. M Prashanth, Ms. T. Swapna

**No. of Participants:** 02

Mr. M. Prashanth, Mrs. T. Swapna faculty of Mathematics participated in a two-day Faculty Development Program on Mathematical & Computational Fluid Dynamics using MATLAB. The speaker for the first day was Prof. N. Kishan, Head, Department of Mathematics, Osmania University, Hyderabad. He explained the basics of Fluid Dynamics & Boundary Layer Equations and how to convert the partial differential equations to ordinary differential equations by using similarity transformations.

The speaker for the second session was Prof. K. Maruthi Prasad, Department of Mathematics, Gitam University, Hyderabad. He explained different methods of solutions of PDE in Fluid Dynamics, Like Power Series Method, Perturbation Methods, Adomian Decomposition Method, HAM (Homotopy Analysis Method) etc.

The last Session of the first-day speaker was Prof. K. Srinivasa Rao, Head Department of Mathematics, SCSVMV, Kanchipuram, Tamil Nadu. He explained the basics of MATLAB and also gave some examples. The second-day sir explained 2-D Plotting, 3-D Plotting, Arrays and MATLAB programming. Finally, Sir also explained how to solve second-order ordinary differential equations by using MATLAB code.





Prof. N. Kishan, Dept. of Mathematics, addressing the audience in Two Day Faculty Development program



Mr. M. Prashanth, Faculty of Mathematics receiving the certificate from Prof. K. Srinivas Rao, HOD Dept. of Mathematics, SCSVMV, Kanchipuram, Tamil Nadu.



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

#### FIELD TRIP TO BIRLA PLANETARIUM

Name of the Event: Educational Field Trip

**Place: BIRLA PLANETARIUM** 

**Date:** 16th November 2022

Venue: Birla Planetarium, Hyderabad.

Participants: B.Sc. Second, Final year students

No. of Participants: 100

The Faculty of Mathematics organised an Educational Field trip to Birla Planetarium for the B.Sc. Second, Final year students on 16th November 2022. It was an enlightening experience for the students. In the first session students watched the video regarding the Solar System, Galaxy of stars in space, Kalpurush of the stars which was recognized by our ancient scientists and Magenta, a group of stars dazzling and forming the shapes in the space. They also showed about the planet Mars and the chance of existing life on the planet Mars. The videos were outstanding and very informative for the students to improve their knowledge.

In the next session the students visited the museum in which they saw various experiments, machines taking the bits and bytes by applying the Logic gates giving the results in identifying the geographical areas. Also, the launching of satellites and placing them in orbit.





BSC Second and Final year students as a part of a field trip visiting the Birla Museum.



BSC second and final year students observing details of various satellites which were launched by INDIA in Birla planetarium.





Ms. T. Swapna, Faculty of Mathematics, with B. Sc second and final year students at Birla Planetarium.



BSC Second and Final year students as a part of field trip visiting the Birla Museum.





BSC Second and Final year students as a part of a field trip visiting the Birla Museum.





(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

# THREE DAY INTERNATIONAL ONLINE WORKSHOP ON

### **MATLAB Modelling of Physical Systems**

Name of the Event: Three Day International Workshop

**Topic: MATLAB Modelling of Physical Systems** 

**Date:** 26th - 28th November 2022

Resource Person: Dr.M. Balasu bramani, Subject Matter Expert Former professor,

Dila University

**Platform: Google Meet.** 

Participants: Mr. M Prashanth, Ms. T. Swapna

**No. of Participants:** 02

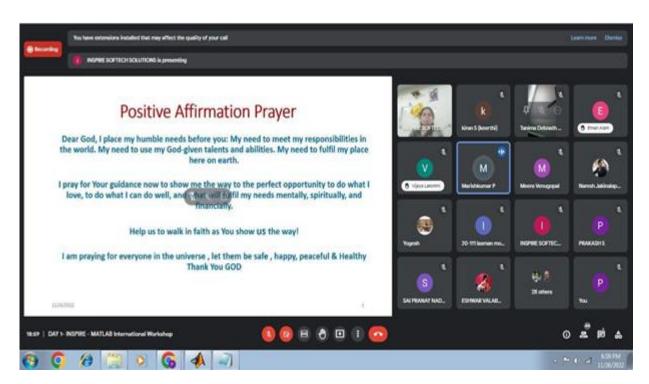
Mr. M. Prashanth, Mrs. T. Swapna faculty of Mathematics participated in three days' international workshop on MATLAB Modelling of Physical Systems. The speaker for three days was Dr. M. Balasubramani, Subject Matter Expert, Former Prof. Dila University, Ethiopia. Sir started the session with the introduction of the MATLAB and the installation process about the software and basic programming commands in MATLAB. He also included data analysis, graphics programming, and real time examples of MATLAB. The queries were answered by the resource person in the session.



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society



The Research Person Dr. M. Balasubramani, Subject Matter Expert, Former Prof. Dila University explaining about the Applications of MATLAB.





(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

#### GUEST LECTURE ON THE VEDIC MATHEMATICS

Name of the Event: Guest Lecture

**Topic: Vedic Mathematics** 

**Date:** 29th March 2023

Resource Person: Ms. Nagasri Saradamba, Vedic instructor

**Venue: Seminar Hall, LFDC** 

Participants: B.Sc. final year students

**No. of Participants: 50** 

The faculty of Mathematics organised a Guest lecture on Vedic Mathematics - Short cut techniques to calculate the problems in a short time for the B.Sc. final year students on 29th March 2022. The speaker for the session was Ms. Nagasri Saradamba, Vedic instructor. The main objective of the lecture was to do the calculation easily and obtain accurate Solutions. She also gave a brief description about the decimal number system and gave tips to do simplification very quickly. She also focused on how to calculate cubes, squares, and square roots of the numbers by using only two to three steps and also the techniques which are very useful in competitive exams as it saves time and solutions can be obtained in a short time.





Ms. Nagasri Saradambha explaining the techniques in Vedic Mathematics for the B.Sc. Final year students.







Ms. Nagasri Saradambha answering to the queries asked by the students in the seminar.



Ms. P. Jayanthi, Vice principal felicitating Ms. Nagasri Saradambha for delivering her speech in the seminar on Vedic Mathematics.



(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society

# NATIONAL WORKSHOP ON NUMERICAL COMPUTATIONS BY USING MATLAB

Name of the Event: National Workshop

**Topic: Numerical Computations by using MATLAB** 

**Date:** 11th May 2023

Resource Person: Dr. Srinivasa Rao Venue: Auditorium, Sp College, Sec

Participants: Mr. M. Prashanth, Mr. V Naveen Kumar

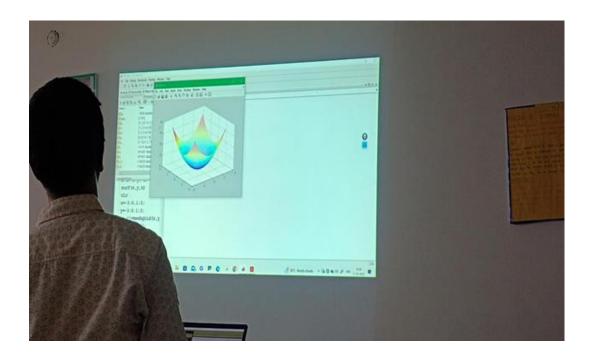
**No. of Participants:** 02

Mr. M. Prashanth, Mr. V. Naveen Kumar, faculty of Mathematics, attended the National Workshop on Numerical Computations by using MATLAB was organised by SP College on 11th May 2023. The program started with an inaugural function graced by chief guest Prof. K. Ramesh Babu & Prof. K. Srininvasa Rao, a resource person of the workshop. First session of the workshop started with the brief introduction of the MATLAB by Prof. K. Srinivasa Rao explaining about the various commands associated with the functioning of MATLAB. The speaker explained how to initiate the values to the variables and the arrays and matrices. He also discussed the addition of the Matrices and multiplication of symmetric and non-symmetric matrices. Sir also explained how to plot the values of various functions such as a sine curve, cosine curve, sinx/x, and Asteroid functions and how to view them diagrammatically. The last session of the workshop was ended by the valedictory function to the resource person and the participation certificates were distributed to the participants.





Prof. K. Srininvasa Rao explaining about mat lab commands and how to plot the values graphically





(Affiliated to Osmania University)

Uppal, Hyderabad

Managed by Brothers of St. Gabriel Educational Society



Mr. Prashanth, HOD, faculty of Mathematics receiving the participation certificate from vice principal Dr. Amarnatha Sharma and the resource person of the session Prof. K. Srininvasa Rao.



Mr. V. Naveen Kumar, Faculty of Mathematics receiving the participation certificate from vice principal Dr. Amarnatha Sharma and the resource person of the session Prof. K. Srininvasa Rao