



Tirumala Tirupati Devasthanams

శ్రీ వేంకటేశ్వర కళాశాల

Sri Venkateswara College

(University of Delhi)

NAAC Grade A+

EVENT REPORT

NAME OF THE EVENT: Compact Course titled “Differential Equation Models in Ecology”			
DATE	DEPARTMENT	COMMITTEE/SOCIETY	COORDINATORS' NAME
19.09.2024 to 21.09.2024	Mathematics	The Department of Mathematics, Sri Venkateswara College	Dr. Sudhakar Yadav, Assistant Professor, Department of Mathematics, Sri Venkateswara College, University of Delhi
TIME:	VENUE:	NUMBER OF PARTICIPANTS:	NATURE:
1:00 PM to 5:00 PM (19/09/2024) 1:00 PM to 5:00 PM (20/09/2024) 10:00 AM to 2:00 PM (21/09/2024)	ICT Lab 3	59	Outdoor/Indoor; online/offline/hybrid
FINANCIAL SUPPORT/ ASSISTANCE (if any):	Yes 1. IQAC, Sri Venkateswara College – Rs. 10,000 2. Prof. R. Balakrishnan Endowment Trust, Tiruchirappalli, Tamil Nadu, and The Mathematics Consortium, Pune– Rs. 25,000		

Overview:

A 3-day workshop titled “Differential Equation Models in Ecology” was organised by the Department of Mathematics of the college from September 19th to 21st, 2024, at ICT Lab 3 for all undergraduate students at the college. The workshop aimed to provide participants with comprehensive knowledge and hands-on experience in both the theoretical foundations and practical applications of differential equation models in ecology, including relevant programming techniques. The event was attended by 59 undergraduate participants and several faculty members. **Resource Person:** Dr. Bapan Ghosh, Associate Professor, Department of Mathematics, IIT Indore.

Day 1: 19th September 2024

Inauguration (12:00 pm – 1:00pm): The workshop commenced with an inaugural ceremony in the presence of the Chief Guest: Dr. Bapan Ghosh from IIT Indore, Guest of Honor: Dr Purnima Gupta, Dr Krishna Kumar (Bursar), Ms. Pratibha Gaur (Teacher-in-Charge), and other faculty of the Department of Mathematics of the college.

The session set a warm and inspiring tone, featuring the following highlights:

1. **Lamp Lighting**

The inaugural ceremony began with the traditional lamp lighting, symbolizing the dispelling of ignorance and the illumination of knowledge. The chief guest, Dr. Bapan Ghosh, along with senior faculty members, took part in the ritual, marking the auspicious start of the workshop.

2. **Welcome Address**

Following the lamp lighting, Ms. Pratibha Gaur, Teacher-in-Charge of the Department of Mathematics, delivered the welcome speech. She warmly greeted all participants, esteemed guests, and faculty members, expressing enthusiasm for the workshop's objectives and anticipated outcomes.

3. **Resource Speaker Introduction**

Ms. Pratibha Gaur introduced Dr. Bapan Ghosh, Associate Professor from the Department of Mathematics, IIT Indore, as the distinguished resource speaker. Dr. Ghosh's extensive experience in mathematical modeling and ecology was highlighted, underscoring the relevance of his expertise for the workshop.

4. **Memento and Sapling Presentations**

Dr. Bapan Ghosh was honored with a memento by the Convenor, Dr. Sudhakar Yadav, as a token of appreciation for his participation and contribution to the workshop. Dr. Purnima Gupta was presented with a sapling by Ms. Pratibha Gaur and Dr. Deepti Jain, while Dr. Deepti Jain was honored with a sapling by Ms. Shakuntla Wadhwa and Dr. Sudhakar Yadav. Prof. S. Krishna Kumar was also honored with a sapling.

5. **Address by the Chief Guest**

Dr. Bapan Ghosh addressed the gathering, emphasizing the importance of mathematical models in ecological research and the significance of hands-on workshops for the academic growth of students and faculty alike.

6. **Address by the Guest of Honor**

Dr. Purnima Gupta, Guest of honor and a former faculty of the Department of Mathematics at Sri Venkateswara College, shared her experiences in the field of mathematics and offered motivational insights.

7. **Address by the Bursar**

Prof. S. Krishnakumar, Bursar of Sri Venkateswara College, addressed the gathering, highlighting the significance of the workshop and sharing inspiring words.

8. **Address by Dr. Deepti Jain**

Dr. Deepti Jain, Associate Professor, Department of Mathematics, Sri Venkateswara College, addressed the gathering, discussing the contributions of the Prof. R. Balakrishnan Endowment Trust, Tiruchirappalli, Tamil Nadu, and The Mathematics Consortium, Pune, along with sharing motivational remarks.



Lamp Lighting Ceremony



Felicitation of the Chief Guest



Felicitation of Dr Deepti



Welcome address by Ms Pratibha



Address by Dr Purnima Gupta



Address by Dr Deepti Jain

Group Photo at Inauguration





Sri Venkateswara College
(Accredited with grade A+ by NAAC)
University of Delhi
Department of Mathematics

Cordially invites you to
the Inaugural Ceremony of the
3-day Workshop on
“Differential Equation Models In Ecology”
(An IQAC Initiative)

In collaboration with:
Prof. R. Balakrishnan Endowment Trust and
The Mathematics Consortium

Resource Person:
DR. BAPAN GHOSH
DEPARTMENT OF MATHEMATICS
IIT INDORE



Date: 19th September 2024
Time: 12 p.m. onwards
Venue: Seminar Hall



Prof. Vajala Ravi
(Principal)

Ms. Pratibha Gaur
(Teacher-in-Charge)

Dr. Sudhakar Yadav
(Convener)

Ananya Minocha
(Student Coordinator)

Inauguration Poster

Day-1 (19/09/2024)

Session 1 (1:00 pm -3:00pm): Resource Person: Dr. Bapan Ghosh, Associate Professor, Department of Mathematics, IIT Indore. The first day of the workshop focused on foundational concepts in differential equations and their applications. Key topics covered included:

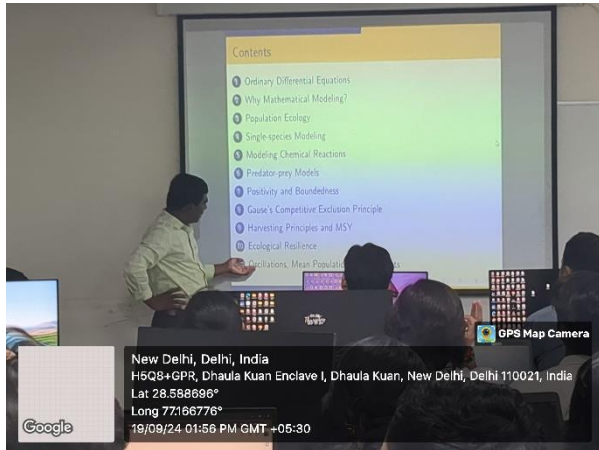
- 1. Basic Concepts of Differential Equations**
An overview of fundamental differential equation concepts, including classification and solution techniques, set the groundwork for more advanced applications.
- 2. Autonomous and Non-autonomous Systems**
Participants explored the differences between autonomous and non-autonomous systems, with examples to illustrate how each type models various dynamic systems in nature.
- 3. Fixed Points and Lyapunov Stability**
The session introduced fixed points and their stability, with a focus on Lyapunov's method for determining system stability, which is essential for ecological and chemical models.
- 4. Linearization**
Techniques for linearizing complex systems around fixed points were discussed, enabling simplified analysis of system behaviors near equilibrium points.
- 5. Historical Population Models**
A historical perspective on population models was provided, including discussions on Malthusian and logistic growth models.
- 6. Chemical Reactions and Modeling**
Participants were introduced to differential equation models of chemical reactions, laying the groundwork for understanding reactions in ecosystems.
- 7. From Chemical Reactions to Predator-Prey Models**
The day concluded with a transition from chemical reaction modeling to predator-prey models, demonstrating how these mathematical tools can simulate ecological interactions.

Tutorial Session-1 (3:20PM to 4:20 PM) by Dr. Sudhakar Yadav

The afternoon session focused on a Q&A segment to address participants' queries from the previous session. Dr. Sudhakar Yadav, Assistant Professor in the Department of Mathematics at Sri Venkateswara College, University of Delhi, led the session. Participants were actively engaged through hands-on activities and case studies. The tutorial sessions provided hands-on experience with the concepts covered in the lectures, allowing participants to deepen their understanding of differential equation models, their applications, and the problems discussed during the lectures.

Key Takeaways:

On the first day, participants gained knowledge of the basic concepts of differential equations, including autonomous and non-autonomous systems, fixed points, Lyapunov stability, linearization, historical population models, chemical reactions and modeling, and the transition from chemical reactions to predator-prey models.



Day 1: Technical Session



Day 1: Tutorial Session

Day-2 (20/09/2024)

Session 2 (1:00 pm - 3:00pm)

The second day began with an insightful session on “Population Oscillations and Average Biomass,” led by Dr. Bapan Ghosh, Associate Professor in the Department of Mathematics at IIT Indore. The session covered a range of essential topics in ecological modeling:

1. **Population Oscillations and Average Biomass**
Dr. Ghosh introduced the concept of population oscillations and discussed methods for calculating average biomass in ecological systems.
2. **Population Harvesting Strategies**
Various strategies for sustainable population harvesting were explored, including considerations for maintaining ecological balance.
3. **Catastrophic Collapse**
The session addressed factors leading to catastrophic collapse in populations, highlighting risks and prevention methods.
4. **Maximum Sustainable Yield**
Participants learned about the concept of maximum sustainable yield and its applications in managing renewable resources.
5. **The Volterra Principle**
Dr. Ghosh introduced the Volterra principle, which examines the dynamics of prey-predator interactions in ecological models.
6. **Lotka-Volterra Model**
The foundational Lotka-Volterra model was covered, demonstrating its application in understanding predator-prey relationships.

Tutorial Session-2 (3:20PM to 4:20 PM) by Dr. Sudhakar Yadav

The tutorial session on Day 2 began with a Q&A segment led by Dr. Sudhakar Yadav, Assistant Professor in the Department of Mathematics at Sri Venkateswara College, University of Delhi, addressing participants' questions from the previous lecture. This interactive session clarified key concepts and resolved queries, ensuring a solid understanding before moving forward. The tutorial then transitioned into hands-on activities that allowed participants to practically apply concepts covered in the lecture. Through guided exercises and simulations, participants gained deeper insights into population dynamics, population harvesting strategies, and the Lotka-Volterra model, further solidifying their grasp of the material.

Key Takeaways:

On the second day, participants gained knowledge on the topic “Population Oscillations and Average Biomass,” which included concepts such as population harvesting strategies, catastrophic collapse, maximum sustainable yield, the Volterra principle, and the Lotka-Volterra model.



Day 2: Technical Session



Day 2: Tutorial Session

Day-3 (21/09/2024)

Session 3 (10:00 AM - 12:00 PM)

On the final day of the workshop, Dr. Bapan Ghosh, Associate Professor in the Department of Mathematics at IIT Indore, introduced advanced topics on stability in mathematical models. He integrated real-life examples and emerging trends, covering the following key areas:

- **Top-down and Bottom-up Controls**
Dr. Ghosh explained the concepts of top-down and bottom-up controls in ecological systems, illustrating how these factors influence population dynamics and community structure.
- **Species Enrichment Phenomenon**
Participants learned about the species enrichment phenomenon, discussing its implications for biodiversity and ecosystem stability.
- **Hydra Effects**
The concept of Hydra effects was introduced, highlighting their role in ecological modeling and population interactions.
- **Discussion on Advanced Ecological Models and Principles**
The session concluded with a brief discussion on advanced ecological models and principles, encouraging participants to think critically about their applications in real-world scenarios.

Tutorial Session-2 (12:30 PM to 1:30 PM) by Dr. Sudhakar Yadav

The closing session of Day 3 featured a questions and answers from the covered lecture on day-3 in Mathematical Models, with contributions from Dr. Bapan Ghosh, Associate Professor in the Department of Mathematics at IIT Indore, and Dr. Sudhakar Yadav, Assistant Professor in the Department of Mathematics at Sri Venkateswara College, University of Delhi.

During the session, participants actively raised questions regarding the advanced topics discussed earlier in the workshop. Both professors shared their insights, experiences, and best practices, fostering an engaging dialogue that enhanced participants' understanding of stability in mathematical models.

This interactive exchange not only clarified doubts but also encouraged participants to think critically about the applications of these concepts in real-world scenarios.

Key Takeaways:

On the third day, participants deepened their understanding of **Stability in Mathematical Models** through advanced topics and interactive discussions.



Day 3: Technical Session



Day 3: Tutorial Session

Closing Ceremony (1:30 pm onwards)

The workshop concluded with a closing ceremony, where certificates were distributed to all participants. Dr. Sudhakar Yadav, the workshop convener, extended heartfelt gratitude on behalf of the organizing committee, expressing appreciation for the speakers, participants, and sponsors who contributed to the success of the event.

Following the certificate distribution, some students were invited to share their feedback, reflecting on their learning experiences and expressing their feedback for the knowledge and skills gained during the workshop. The ceremony concluded with group photos to commemorate the memorable occasion.



Feedback Session



Certificate Distribution



Vote of Thanks by Dr Sudhakar Yadav (Teacher Coordinator) & Ms Ananya (Student Coordinator)

Feedback on the Three-Day Workshop:

Participants expressed high satisfaction with the workshop’s content, delivery, and organization. Many attendees highlighted the practical approach and real-world applications of the topics covered, which enhanced their learning experience.

Suggestions for future workshops included:

- **Deeper Exploration:** Participants requested more in-depth sessions focusing on Differential Equation Models in Ecology to deepen their understanding.
- **Extended Hands-on Sessions:** Attendees expressed interest in longer hands-on sessions to further practice and apply the concepts learned.

Overall, the feedback indicates a strong appreciation for the workshop while also providing valuable insights for future improvements.

Conclusion:

The three-day workshop on “Differential Equation Models in Ecology” was a resounding success, offering valuable insights and equipping participants with essential skills in differential equations and ecology. The organizers look forward to hosting similar events in the future to further foster learning and collaboration within the academic community.



Organising Team



Group Photo (All Participants)

PROOFS & DOCUMENTS ATTACHED:



IQAC
V.A. 18/9/24

Request for partial financial support from IQAC for a workshop on "Differential Equation Models in Ecology"

1 message

Deepti Jain <djain@svc.ac.in>

Tue, 17 Sept, 2024 at 8:12 pm

To: Principal Sri Venkateswara College <principal@svc.ac.in>, Bursar Sri Venkateswara College <bursar@svc.ac.in>, IQAC Sri Venkateswara College <iqac@svc.ac.in>, Criterion 3 IQAC SVC <criterion3@svc.ac.in>

Cc: Sudhakar Yadav <sudhakarbh10@svc.ac.in>

Respected Principal/Bursar/IQAC Coordinator/ IQAC Criterion 3 Coordinator,

I am writing on behalf of the Department of Mathematics to request partial financial support for the upcoming 3-day workshop titled "Differential Equation Models in Ecology," scheduled to take place on September 19 to September 21, 2024 organized by the Department of Mathematics at SVC. The workshop is interdisciplinary and is of great benefit not only for students but the faculty as well. We have received many registrations both from students as well as faculty of other departments.

The expenses in the form of honorarium and the travel expenses of the resource person of Rs.25000/- in total to Dr. Bapan Ghosh, Dept of Mathematics, IIT Indore shall be met by the sponsoring agency, i.e., Prof R Balakrishnan Endowment Trust (RBET) and The Mathematics Consortium (TMC).

As part of our commitment to providing a conducive learning environment and ensuring the smooth execution of the event, we seek financial assistance to cover the costs of Accommodation and DA of the resource person, and some stationery (memento, poster etc.), and certificates for the participants from the IQAC Criterion 3.

Details of the Request:

- Workshop Title: Differential Equation Models in Ecology
- Date: September 19 to September 21, 2024
- Estimated Number of Participants: 50 to 60
- Required Budget for Accommodation (arranged at NCERT Guest House): 3000 Rs for 3 days
- Required budget for TA/ DA (3 days): 3000 Rs
- Required Budget for Stationery: 1500 Rs (Memento) + 500 Rs (posters and other stationary)
- Required Budget for Certificates: 2000 Rs

The total amount required from IQAC is 10000 Rs. We believe that this support will significantly contribute to the overall success of the workshop and enhance the experience for all participants. We kindly request your assistance in processing this financial support at your earliest convenience.

Thank you for considering our application. We appreciate your support and look forward to your positive response.

Thanks and regards

Dr Deepti Jain

Associate Professor,
Department of Mathematics,
Sri Venkateswara College,
University of Delhi,
Delhi, India.

Dear Sir
Kindly permit me to sanction Rs 10,000/-
from IQAC funds as this is an important
interdisciplinary event pertaining to
Criteria 3 and will be an IQAC and Dept of
Mathematics initiative.
V.A. 18/9/24

Permitted
V.A. 18/9/24

Permitted
Sudhakar

Brochure:



Sri Venkateswara College
University of Delhi

Workshop
On
"Differential Equation Models in Ecology"
organised by
Department of Mathematics
Sri Venkateswara College,
University Of Delhi
in collaboration with
Professor R. Balakrishnan Endowment
Trust, Tiruchirappalli and
The Mathematics Consortium, Pune
September 19-21, 2024

Register here:
Click: <https://forms.gle/XaiznY1pvsu5SrlX6>



Department of Mathematics

The Department of Mathematics, Sri Venkateswara College was established in 1961 with the inception of the college and introduced B.Sc. (Hons)/ B.A. (Hons) Mathematics in 1977. At present the department comprises of 17 dedicated, hardworking and passionate faculty members with specialisation in diverse fields of Pure and Applied Mathematics including Analysis, Algebra, Discrete Mathematics, Numerical Analysis, Differential Equations, Optimization, and beyond. The Department keeps organizing various seminars, workshops and research-oriented programs in the interest of the students. The department is also equipped with its academic association 'Trisectrix' which organizes various academic events throughout the year. The Magazine committee of the department releases the annual magazine called 'Math Life' and this year it released its 10th Issue.

Department of Mathematics, Sri Venkateswara College, in collaboration with Professor R. Balakrishnan Endowment Trust and The Mathematics Consortium, Pune, is pleased to announce a workshop on Differential Equation Models in Ecology. This event will take place from 19th to 21st September 2024, featuring expert lectures by Dr. Bapan Ghosh (IIT Indore).

About the Workshop

The integration of differential equation models with programming tools has become essential for solving complex problems in science, engineering, ecology, biomathematics, and other domains. This three-day compact course workshop aims to provide participants with foundational knowledge in mathematical modelling and hands-on experience with various software tools such as MATLAB, Mathematica, and others. The workshop will cover both theoretical aspects and practical applications of differential equation models in ecology and programming.

Certificates:

Certificate will be awarded to all participants who attend all sessions.

Resource Person:



Dr. Bapan Ghosh,
Associate Professor
Department of Mathematics
IIT Indore

Objectives:

1. To introduce participants to the fundamentals of mathematical modelling.
2. To provide training on various software tools used in developing mathematical models.
3. To enhance participant's problem-solving skills through hands-on programming exercises.
4. To foster collaboration and sharing of knowledge among students, researchers, and academicians.

Registration details:

Participants Eligibility:

UG students and Faculty Members from Sri Venkateswara College

Last date of Registration:

18th September, 2024

Registration Fees:

Rs. 100/-

Organizing Committee

Workshop Chair

Prof. Vajala Ravi,
Principal,
Sri Venkateswara College,
University of Delhi

Teacher-in-Charge

Ms. Pratibha Gaur

Advisory Committee

Ms. Shakuntla Wadhwa
Prof. R. K. Budhraj
Dr. Mainak Mukherjee
Prof. Swarn Singh
Dr. Deepti Jain
Mr. Ninian N Kujur

Members

Dr Amit Kumar
Dr Nisha Bohra
Dr Rahul Thakur
Ms Monika Meena
Dr P. Devki
Mr Vikas Jorwal
Mr Anuj Kumar
Ms Arushi
Mr Mahendra Pal

Convener

Dr. Sudhakar Yadav

Student Coordinator

Ananya Minocha

Supporting Students

Aman Bhatnagar
Lakshita Bharti
Devansh Bhateja
Rohan Das
Danish

Contact Persons



Dr. Sudhakar Yadav
sudhakarbh10@gmail.com
9250060844

Ananya Minocha
ananyaminocha0@gmail.com
9821136727

College Address:

Sri Venkateswara College,
University of Delhi,
Benito Juarez Road,
Dhaura Kuan, New Delhi, 110021

Participant's Certificate Sample:

	<p style="text-align: center;">SRI VENKATESWARA COLLEGE, UNIVERSITY OF DELHI THE DEPARTMENT OF MATHEMATICS</p>	
<p style="text-align: center;"><i>This is to certify that Mr/Ms _____ of course _____ participated in 3-days workshop on topic “Differential Equation Models in Ecology” organized in collaboration with IQAC & Professor. R. Balakrishnan Endowment Trust and The Mathematics Consortium held during, 19th to 21st September, 2024.</i></p>		
<p>_____ Dr Sudhakar Yadav Convenor</p>	<p>_____ Ms. Pratibha Gaur Teacher-in-charge</p>	<p>_____ Prof. V. Ravi Principal</p>

List of Participants:

Workshop on “Differential Equation Models in Ecology”

List of Attendees

S.No	Name of Students	Roll No.	Course Name
1.	Garima Joshi	1722123	B.Sc. (H) Mathematics
2.	Kumod	1722112	B.Sc. (H) Mathematics
3.	Aditya Rajpat	1722039	B.Sc. (H) Mathematics
4.	Narender Kumar	T3405NK	B.Sc (H) Physics
5.	Amaan saifi	1723048	B.Sc. (H) Mathematics
6.	Shivnath Yadav	1722087	B.Sc. (H) Mathematics
7.	Arun yadav	1724016	B.Sc. (H) Mathematics
8.	Anjali Singh	1722107	B.Sc. (H) Mathematics
9.	Arpit Singh	1724047	B.Sc. (H) Mathematics
10.	Arindum Goel	1724066	B.Sc. (H) Mathematics
11.	Gauri Arya	1724095	B.Sc. (H) Mathematics
12.	Prateek	1722006	B.Sc. (H) Mathematics
13.	Ayush Jakhmola	1722019	B.Sc. (H) Mathematics
14.	Manya Banga	1724003	B.Sc. (H) Mathematics
15.	Tushar Dhama	1723038	B.Sc. (H) Mathematics
16.	Vansh	1724063	B.Sc. (H) Mathematics
17.	Devanshi Tandon	1724020	B.Sc. (H) Mathematics
18.	Anurag Singh Meena	1722103	B.Sc. (H) Mathematics
19.	Yuganshi Bisen	1724032	B.Sc. (H) Mathematics
20.	Sameer kaswan	1723019	B.Sc. (H) Mathematics
21.	Dhruv	1724100	B.Sc. (H) Mathematics
22.	Narendra Anchara	1724069	B.Sc. (H) Mathematics
23.	Manish Anand	1722082	B.Sc. (H) Mathematics
24.	Neha	1722093	B.Sc. (H) Mathematics
25.	Iksha	1723072	B.Sc. (H) Mathematics
26.	Shashank Verma	1722075	B.Sc. (H) Mathematics
27.	Vaishali Saini	1722108	B.Sc. (H) Mathematics
28.	Apurva Singh	1722045	B.Sc. (H) Mathematics
29.	Harsh	1723052	B.Sc. (H) Mathematics
30.	Onkar Sharma	1722120	B.Sc. (H) Mathematics

S.No	Name of Students	Roll No.	Course Name
31.	Yatin Sood	1723067	B.Sc. (H) Mathematics
32.	Sachin chhokra	1724025	B.Sc. (H) Mathematics
33.	Anurag Seth	1722074	B.Sc. (H) Mathematics
34.	Arpit	1722078	B.Sc. (H) Mathematics
35.	Mukul Gupta	1722063	B.Sc. (H) Mathematics
36.	Divya Yadav	1723054	B.Sc. (H) Mathematics
37.	Ishita Shukla	1722123	B.Sc. (H) Mathematics
38.	Dhruv Agarwal	1724041	B.Sc. (H) Mathematics
39.	Sushant kumar	1722076	B.Sc. (H) Mathematics
40.	Dhruv Pandey	1724096	B.Sc. (H) Mathematics
41.	Vansh sharma	1724085	B.Sc. (H) Mathematics
42.	Samarth Dhingra	1722009	B.Sc. (H) Mathematics
43.	Guriya	1723068	B.Sc. (H) Mathematics
44.	Uday Jadoun	1723014	B.Sc. (H) Mathematics
45.	Dr. P. Devaki	Na	B.Sc. (H) Mathematics
46.	Rajneesh Kumar	1724031	B.Sc. (H) Mathematics
47.	AKSHANSH GANGWAR	1722094	B.Sc. (H) Mathematics
48.	Yashika chaudhary	1724132	B.Sc. (H) Mathematics
49.	Akshali	1722902	B.Sc. (H) Mathematics
50.	Anshika	1724017	B.Sc. (H) Mathematics
51.	Manjeet	1722109	B.Sc. (H) Mathematics
52.	Saksham Kumar	1724055	B.Sc. (H) Mathematics
53.	Anjishat Gandhi	1724030	B.Sc. (H) Mathematics
54.	Shubham Kumar	1724077	B.Sc. (H) Mathematics
55.	Mohit Sharma	1724098	B.Sc. (H) Mathematics
56.	Vibhor Jha	1724072	B.Sc. (H) Mathematics
57.	Himanshu Deshwal	1723018	B.Sc. (H) Mathematics
58.	Mohit	1723056	B.Sc. (H) Mathematics
59.	Tejveer Yadav	1722071	B.Sc. (H) Mathematics
60.	Dakshita Pandey	1724127	B.Sc. (H) Mathematics

Attendance:

Sri Venkateswara College (University of Delhi)
Department of Mathematics
Workshop Title: Differential Equation Models in Ecology
Attendance Sheet

S.N.	Roll No.	Student Name	Name of Course	Signature Day-1 19-09-2024	Signature Day-2 20-09-2024	Signature Day-3 21-09-2024
1	1722077	Darshita Joshi	B.Sc (H) Mathematics	✓	✓	✓
2	1723067	Yash Sood	B.Sc (H) Mathematics	✓	✓	✓
3	1722112	Kunal	B.Sc (H) Mathematics	✓	✓	✓
4	1724025	Sachin Chhokri	B.Sc (H) Mathematics	✓	✓	✓
5	1722028	Aditya Ruppel	B.Sc (H) Mathematics	✓	✓	✓
6	1722074	Anurag Bhat	B.Sc (H) Mathematics	✓	✓	✓
7	1740546	Narinder Kumar	B.Sc (H) Physics	✓	✓	✓
8	1722078	Arpit	B.Sc (H) Mathematics	✓	✓	✓
9	1723048	Anjali saifi	B.Sc (H) Mathematics	✓	✓	✓
10	1722063	Mukul Gupta	B.Sc (H) Mathematics	✓	✓	✓
11	1722067	Shivam Yadav	B.Sc (H) Mathematics	✓	✓	✓
12	1723094	Dhruv Yadav	B.Sc (H) Mathematics	✓	✓	✓
13	1724016	Arun Yadav	B.Sc (H) Mathematics	✓	✓	✓
14	1722123	Janita Shukla	B.Sc (H) Mathematics	✓	✓	✓
15	1722107	Anjali Singh	B.Sc (H) Mathematics	✓	✓	✓
16	1724041	Dhruv Agarwal	B.Sc (H) Mathematics	✓	✓	✓
17	1724047	Arpit Singh	B.Sc (H) Mathematics	✓	✓	✓
18	1722076	Suhani Kumar	B.Sc (H) Mathematics	✓	✓	✓
19	1724098	Aneesh Goyal	B.Sc (H) Mathematics	✓	✓	✓
20	1724096	Dhruv Pandey	B.Sc (H) Mathematics	✓	✓	✓

S.N.	Roll No.	Student Name	Name of Course	Signature Day-1 19-09-2024	Signature Day-2 20-09-2024	Signature Day-3 21-09-2024
21	1724095	Sauri Arya	B.Sc (H) Mathematics	✓	✓	✓
22	1724042	Vanshi Sharma	B.Sc (H) Mathematics	✓	✓	✓
23	1722008	Pooja	B.Sc (H) Mathematics	✓	✓	✓
24	1722006	Sarvitha Chandra	B.Sc (H) Mathematics	✓	✓	✓
25	1722019	Ayush Jadhav	B.Sc (H) Mathematics	✓	✓	✓
26	1723089	Gurav	B.Sc (H) Mathematics	✓	✓	✓
27	1724007	Manya Bangla	B.Sc (H) Mathematics	✓	✓	✓
28	1723014	Uday Jaiswal	B.Sc (H) Mathematics	✓	✓	✓
29	1723036	Tushar Sharma	B.Sc (H) Mathematics	✓	✓	✓
30	1724063	Vanshi	B.Sc (H) Mathematics	✓	✓	✓
31	1724024	Rajneesh Kumar	B.Sc (H) Mathematics	✓	✓	✓
32	1724020	Devanshi Tandon	B.Sc (H) Mathematics	✓	✓	✓
33	1722084	Abhinav	B.Sc (H) Mathematics	✓	✓	✓
34	1722102	Anurag Singh Meena	B.Sc (H) Mathematics	✓	✓	✓
35	1724132	Yashika Chaudhary	B.Sc (H) Mathematics	✓	✓	✓
36	1724032	Yuganshi Bisen	B.Sc (H) Mathematics	✓	✓	✓
37	1722902	Akshat	B.Sc (H) Mathematics	✓	✓	✓
38	1723019	Sameer Kashyap	B.Sc (H) Mathematics	✓	✓	✓
39	1724217	Ananika	B.Sc (H) Mathematics	✓	✓	✓
40	1724100	Dhruv	B.Sc (H) Mathematics	✓	✓	✓
41	1722105	Manish	B.Sc (H) Mathematics	✓	✓	✓
42	1724009	Narendra Anchara	B.Sc (H) Mathematics	✓	✓	✓
43	1724055	Baksham Kumar	B.Sc (H) Mathematics	✓	✓	✓
44	1722082	Manan Anand	B.Sc (H) Mathematics	✓	✓	✓
45	1724030	Anjishit Ganithi	B.Sc (H) Mathematics	✓	✓	✓
46	1722093	Neha	B.Sc (H) Mathematics	✓	✓	✓
47	1724077	Shubham Kumar	B.Sc (H) Mathematics	✓	✓	✓

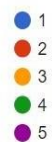
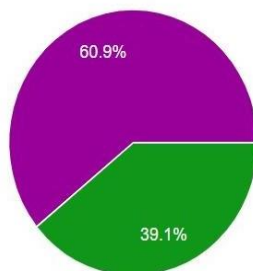
S.N.	Roll No.	Student Name	Name of Course	Signature Day-1 19-09-2024	Signature Day-2 20-09-2024	Signature Day-3 21-09-2024
48	1723072	Rishi	B.Sc (H) Mathematics	✓	✓	✓
49	1724088	Mehak Sharma	B.Sc (H) Mathematics	✓	✓	✓
50	1722075	Shreyansh Verma	B.Sc (H) Mathematics	✓	✓	✓
51	1724072	Yash Jha	B.Sc (H) Mathematics	✓	✓	✓
52	1722108	Yashika Garg	B.Sc (H) Mathematics	✓	✓	✓
53	1723078	Himanshu Deyvedi	B.Sc (H) Mathematics	✓	✓	✓
54	1722043	Aarav Singh	B.Sc (H) Mathematics	✓	✓	✓
55	1722080	Arvi	B.Sc (H) Mathematics	✓	✓	✓
56	1722057	Harsh	B.Sc (H) Mathematics	✓	✓	✓
57	1722071	Tarun Yadav	B.Sc (H) Mathematics	✓	✓	✓
58	1722126	Omair Shamsi	B.Sc (H) Mathematics	✓	✓	✓
59	1724127	Divyanshu Pandey	B.Sc (H) Mathematics	✓	✓	✓

Feedback Form Analysis:

1.

Content Quality:

23 responses

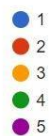
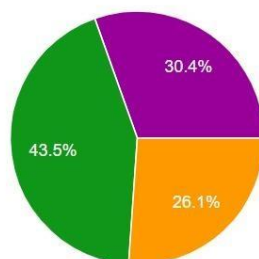


5- Excellent
4- Very Good
3- Good
2- Average
1-Poor

2.

Interactivity and Engagement:

23 responses

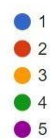
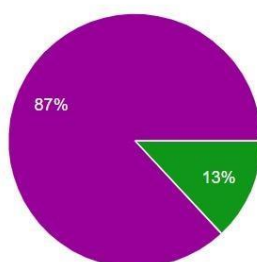


3.

4.

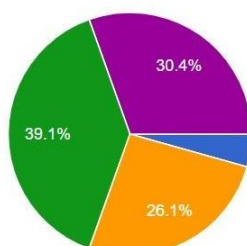
Facilitator's Knowledge:

23 responses



Relevance to your needs:

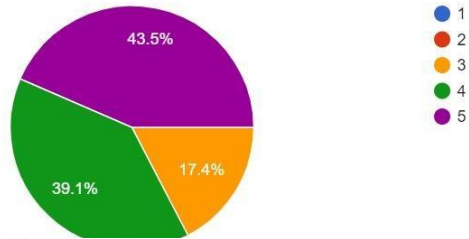
23 responses



5.

Overall Experience:

23 responses



6.

What was the most valuable takeaway from this workshop?

23 responses

- The learnings I got from this workshop will eventually provides me extra knowledge of the differential equations in our ecology
- Knowledge
- Knowledge
- Applications of differential equations
- The knowledge I got from this workshop is to use the differential equation in various field
- Sharing class with seniors
- Ecological Resilience and Hydra effect

What was the most valuable takeaway from this workshop?

23 responses

- Got a very basic and in some sense advance knowledge of differential equation modeling and found it to be very insterting
- The most important I have learnt about that are models that help me a lot to understand the problem and tells the use of mathematics in further career options
- The workshop really helped me in knowing more about mathematical modelling and application of mathematical models in real life scenerios.
- I have get an option for carrier
- The workshop help me in knowing more about mathematical modelling and application of mathematical model in real life scenerios
- Knowledge about Differential equation and mathematical modelling
- That differential equation in models of ecology does include bio and chemistry

What was the most valuable takeaway from this workshop?

23 responses

- Knowing about the various types of modelling and based them real life problems like disease ,etc
- Knowledge about Mathematical modelling
- I got to know about mathematical modelling and how fascinating can its impact be if studied wisely !
- Hydra Effect
- Personally I have learnt a lot of things from this workshop. It helped me to get to know about application of modelling and differential equation in real life scenerios. I have studied it earlier also but got real feel this time. Also I got an opportunity to have talk with others. No doubt it is too engaging and useful workshop for us.
- I learned many things that i didn't studied yet...
- The insightful knowledge about the population dynamics.

Itinerary:



Sri Venkateswara College

Department of Mathematics



**A Workshop on
"Differential Equation Models in
Ecology"**

(An IQAC Initiative)

In collaboration with:

Prof. R. Balakrishnan Endowment Trust and The Mathematics Consortium

Registration Deadline: 18th September 2024

Programme Date: 19th-21st September 2024

Venue: ICT Lab 3, Department of Mathematics,
Sri Venkateswara College, University of Delhi-
110021

For Registrations: Scan the QR code for Google
Form

Coordinated by: Dr. Sudhakar
Yadav sudhakarbhul0@svc.ac.in,
9250088844



Workshop Program and Schedule

**Workshop
Day-1**

Thursday, 19th September 2024

12:00 PM – 1:00 PM

Inaugural Session

Inaugural Session Agenda

- Lighting of the Lamp**
 - A traditional ceremony to mark the beginning of the session
- Welcome Address**
 - Dr. Pratibha Gaur**
Teacher-in-Charge, Department of Mathematics, Sri Venkateswara College, Delhi
University

3. **Inaugural Remarks**
 - **Prof. Vajala Ravi**
Principal, Sri Venkateswara College, Delhi University
4. **Keynote Address**
 - **Dr. Bapan Ghosh**
Associate Professor, Department of Mathematics, IIT Indore
5. **Memento Presentation**
 - Presentation of mementos to distinguished guests
6. **Sapling Presentation**
 - Presentation of saplings to distinguished faculties
7. **Special Address**
 - **Dr. Purnima Gupta**
Member, Prof. R. Balakrishnan Endowment Trust, Tiruchirappalli
Former Faculty, Department of Mathematics, Sri Venkateswara College, Delhi University
8. **Recognition of sponsors and their contributions**
 - **Dr. Deepti Jain**
Trustee Coordinator, Department of Mathematics, Sri Venkateswara College, Delhi University

1:00 PM - 3:00 PM	Lecture
3:00 PM	Tea Break and Refreshments
3:30 PM- 4:30 PM	Tutorial

Workshop Day- 2

Friday, 20th September 2024

1:00 PM - 3:00 PM	Lecture
3:00 PM	Tea Break and Refreshments
3:10 PM- 4:00 PM	Tutorial

Workshop Day- 3

Saturday, 21st September 2024

10:00 AM - 12:00 PM	Lecture
12:00 PM	Tea Break and Refreshments
12:30 PM - 1:30 PM	Tutorial
1:30 PM onwards	Closing Ceremony