



# Miranda House

## UNIVERSITY OF DELHI

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### Departmental Annual Report - 3

#### Departmental Activities: Curriculum and Beyond

**Department: Mathematics**

**Year: 2023-24**

**Department Society and its Office Bearers:**

<b>Sankhya, Society of Department of Mathematics</b>			
<b>President</b>	<b>Vice President</b>	<b>General Secretary</b>	<b>Treasurer</b>
<b>Simran Samant</b>	<b>Ishika</b>	<b>Jasbina Quadri</b>	<b>Kusum</b>

**Staff Advisors: Dr. Bhawna Bansal Gupta, Ms Apeksha, Mr. Manoj Rawal, Mr. Mohit Kumar Macchal**

#### Part B.1

##### **Seminars/conferences/workshops conducted by the Department**

1. Department of Mathematics at Miranda House, in collaboration with IQAC, Miranda House conducted a **week-long capacity building workshop/ training program** on Mathematical Data Science & Applications with Dr. Niteesh Sahni, Associate Professor at the Department of Mathematics, Shiv Nadar University, first from June 15, 2023 to June 21, 2023.



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The poster features logos for Miranda House University of Delhi, IQAC, G20 India 2023, Azadi Ka Amrit Mahotsav, and IQAC. The text reads: 'SANKHYA - DEPARTMENT OF MATHEMATICS In collaboration with IQAC - MIRANDA HOUSE presents A WEEK LONG CAPACITY BUILDING WORKSHOP/TRAINING PROGRAM ON MATHEMATICAL DATA SCIENCE & APPLICATIONS'. It includes a photo of Dr. Niteesh Sahni, dates '15 - 21 JUNE 2023', time '9:00 AM ONWARDS', and location 'MATHEMATICS LAB 318'. The fee is 'PAID WORKSHOP AMOUNT TO BE PAID - ₹1000'. Contact information for Dr. Monika Arora, Mr. Mohit Maschal, Mr. Mohd. Sarik Jaisi, and Simran Samant is provided at the bottom.

2. Department of Mathematics, Miranda House, in collaboration with IQAC, Miranda House, conducted a **capacity building training programme on Mathematical Computing in Python** with Dr. Niteesh Sahni, Associate Professor at Department of Mathematics, Shiv Nadar University, and Ms. Priti Rai Jain, Assistant Professor, Department of Computer Science, Miranda House, as speakers. The programme was conducted online from July 20, 2023 to July 24, 2023.

The poster features logos for Miranda House University of Delhi, IQAC, G20 India 2023, Azadi Ka Amrit Mahotsav, and IQAC. The text reads: 'DEPARTMENT OF MATHEMATICS In collaboration with IQAC - MIRANDA HOUSE presents CAPACITY BUILDING TRAINING PROGRAMME (ONLINE MODE) MATHEMATICAL COMPUTING IN PYTHON'. It includes photos of Ms. Priti Rai Jain and Dr. Niteesh Sahni, dates '20 JULY 2023 - 24 JULY 2023', and time '9 AM ONWARDS'. The fee is 'Programme Fee: Rs. 500'. Contact information for Dr. Monika Arora, Mr. Mohit Maschal, Mr. Mohd. Sarik Jaisi, and Simran Samant is provided at the bottom.



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3. Department of Mathematics, Miranda House, organized an **8 hours lecture series on "Mathematical Foundation for Data Analytics"** on Oct. 11, 13, 18 and 20, 2023, with Dr. Gajendra Pratap Singh from JNU.

The poster is for a lecture series organized by the Department of Mathematics at Miranda House, in collaboration with IQAC. It features a photo of Dr. Gajendra Pratap Singh, an Assistant Professor at JNU. The dates and times for the four sessions are listed, along with the venue, Mini Auditorium. Contact information for queries is also provided.

DEPARTMENT OF MATHEMATICS  
In collaboration with  
IQAC - MIRANDA HOUSE  
presents

LECTURE SERIES ON  
**MATHEMATICAL  
FOUNDATION FOR  
DATA ANALYTICS**

**DR. GAJENDRA PRATAP SINGH**  
ASSISTANT PROFESSOR  
SCHOOL OF COMPUTATIONAL AND  
INTEGRATIVE SCIENCES  
JAWAHARLAL NEHRU UNIVERSITY

**DATES & TIME**

Oct 11, 2023	02:00 pm-04:00 pm
Oct 13, 2023	01:00 pm-03:00 pm
Oct 18, 2023	02:00 pm-04:00 pm
Oct 20, 2023	02:00 pm-04:00 pm

**VENUE : MINI AUDITORIUM**

For more queries, contact:

Satish Samant (President)	Dr. Monika Arora (Teacher In-Charge)	Mr. Mohit Macchal (Co-ordinator)
Ishika (Vice President)	Ms. Bhawna Bansal Gupta (Convener)	Mr. Manoj Rawal (Co-ordinator)
	Mr. Apurkha (Convener)	

4. Department of Mathematics, Miranda House, in collaboration with IQAC, organized a **Bridge Course on Mathematica** on **February 3, 2024**, led by Dr. Harsha Kharbanda. Targeted at first-year students (Batch of 2023), the session covered the fundamental rules of Mathematica and included a hands-on component, allowing participants to practice and clarify their doubts. The interactive format enabled students to apply their knowledge in real-time, enhancing their understanding of the software. The workshop concluded successfully, with participants actively engaging in a collaborative learning experience.



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DEPARTMENT OF MATHEMATICS  
In collaboration with  
IQAC - MIRANDA HOUSE  
presents

## BRIDGE COURSE ON MATHEMATICA

**SATURDAY  
3<sup>rd</sup> FEBRUARY  
8:30 am - 12:45 pm**

*Exclusively for first  
year students*

**Dr. Harsha Kharbanda**  
Ph. D. (Mathematics)  
University of Delhi, India  
+91 9810895541  
ssdn0112@gmail.com,  
harsha.kharbanda@gmail.com

Simran Samant (President)  
Ishika (Vice President)  
Ms. Apeksha (Coordinator)  
Dr. Monika Arora (Convener)  
Prof. (Dr.) Bijayalaxmi Nanda (Principal, Miranda House)

5. Department of Mathematics at Miranda House, in collaboration with IQAC, Miranda House, conducted a **hands-on capacity building training workshop** on Mathematical Data Science & Applications with Dr. Niteesh Sahni, Associate Professor at Department of Mathematics, Shiv Nadar University, from January 27, 2024 to February 11, 2024. The Workshop was conducted online on weekends.

DEPARTMENT OF MATHEMATICS  
In collaboration with  
IQAC - MIRANDA HOUSE  
presents

## HANDS-ON CAPACITY BUILDING TRAINING WORKSHOP ON MATHEMATICAL DATA SCIENCE & APPLICATIONS

**Dr. Niteesh Sahni**  
Associate Professor  
Department of Mathematics  
Shiv Nadar University

27 JAN 2024 (SAT), 28 JAN 2024 (SUN),  
3 FEB 2024 (SAT), 4 FEB 2024 (SUN),  
10 FEB 2024 (SAT), 11 FEB 2024 (SUN)

11:00 AM - 3:00 PM  
ONLINE

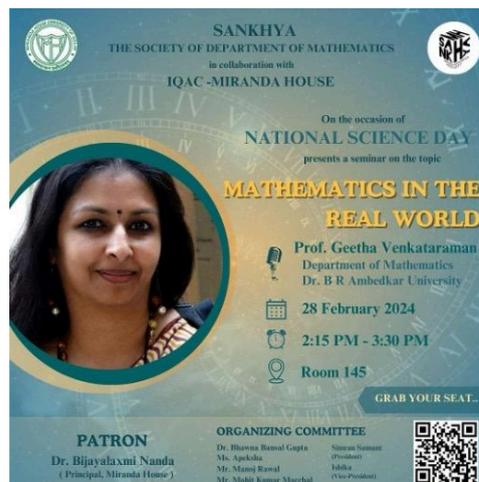
**PAID WORKSHOP  
AMOUNT TO BE PAID: ₹ 2000**

Dr. Bijayalaxmi Nanda (Principal, Miranda House)  
Dr. Monika Arora (Convener)  
Ms. Apeksha (Coordinator)  
Mohd. Sarik Idrisi (Coordinator)  
Simran Samant (President)  
Ishika (Vice President)



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6. **On February 28, 2024**, Department of Mathematics, in collaboration with IQAC, organized a seminar titled **"Mathematics in the Real World" to mark National Science Day**, featuring Professor Geetha Venkataraman from Dr. B. R. Ambedkar University. Prof. Geetha shared her journey from St. Stephen's to Oxford, highlighting the importance of interdisciplinary approaches and her advocacy for women in mathematics. She discussed the contributions of Emmy Noether in Abstract Algebra and Maryam Mirzakhani, the first female Fields Medalist. Addressing students' interests, she covered data analytics, cryptography, and encryption, while emphasizing the need for broader research funding in India. The session concluded with a focus on developing mathematical and verbal communication skills, making it an inspiring and intellectually engaging experience for all attendees.



7. **On April 30, 2024**, the Department of Mathematics, in collaboration with IQAC-Miranda House, hosted an **interactive session titled "Mathematics: A Pathway to Civil Services" with alumna Ms. Ritika Verma, UPSC CSE AIR 25**. Ms. Verma shared her inspiring journey, highlighting how Mathematics helped her succeed in the UPSC exam. She emphasized the importance of college classes and advised students to dedicate time for rigorous practice with a focused notebook. The session also provided valuable insights into the UPSC exam pattern, preparation strategies, and time management. It concluded with a Q&A session, offering personalized guidance to aspiring civil servants.



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**SANKHYA**  
THE SOCIETY OF DEPARTMENT OF  
MATHEMATICS  
in collaboration with  
**IQAC- MIRANDA HOUSE**  
presents  
AN INTERACTIVE SESSION ON THE TOPIC  
**MATHEMATICS:  
A PATHWAY TO  
CIVIL SERVICES**

**Ms. Ritika Verma**  
AIR-25 in UPSC CSE'23  
Alumna, Department of  
Mathematics, Miranda House  
Batch : 2017-20

**30 APRIL, 2024**  
1:00-3:00 PM

**Auditorium**

Open to all Mirandians  
Register here:

For more queries, contact:

Prof. (Dr.) Bijayalaxmi Nanda Principal, Miranda House (Patron)	Dr. Manika Arora (Teacher-in-Charge) Dr. Bhawna Bansal Gupta (Convener) Ms. Apeksha (Convener)	Mr. Manoj Rawal (Coordinator) Mr. Mohit Maachha (Coordinator) Simran Samant (President) Ishika (Vice-President)
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## Part B.2

### Extension Activities organized

## Part B.3

### Any other event organized as part of students' activities (not listed above)

1. Department of Mathematics, Miranda House hosted the **fourth episode of "Careerscape" on September 9, 2023**, featuring alumni Sangeeta Thakur (MH '04, IIT B' 06) and Prashasti Dwivedi (MH '19, IIM K' 21). The session aimed to guide Mathematics Honors students on career prospects, practical applications of mathematics, and the importance of soft skills. Sangeeta Thakur shared insights from her 17 years in Model Risk Management across global banks, highlighting opportunities in operations research. Prashasti Dwivedi discussed



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her experience in strategy roles and the MBA pathway. The event provided valuable advice on transitioning from college to the corporate world, offering attendees insights into diverse career paths in mathematics.



2. The **5th episode of Careerscape**, hosted by the Department of Mathematics on **February 10, 2024**, explored diverse career paths for mathematics graduates. The session featured Arushi Sachdeva, a Strategy Analyst at Accenture, and Akanksha Yadav, a Senior Associate at State Street Global Advisors. Arushi shared insights on her journey from Miranda House to consulting, emphasizing extracurriculars and the application of mathematical concepts. Akanksha highlighted her path in risk analytics, the importance of early CAT preparation, and resilience. The interactive Q&A session covered MBA strategies, interview tips, work-life balance, and adapting to remote work. Both speakers emphasized the significance of holistic development and continuous learning for career success, making the episode a valuable and motivational experience for attendees.



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**SANKHYA**  
THE SOCIETY OF DEPARTMENT OF MATHEMATICS  
MIRANDA HOUSE

PRESENTS

**CAREERSCAPE EP 5 :  
NAVIGATING OPTIONS AFTER GRADUATION  
IN MATHEMATICS**

10<sup>th</sup> FEBRUARY, 2024  
4:50 pm - 6:00 pm  
[Google Meet Link](#)

**ARUSHI SACHDEVA**  
STRATEGY ANALYST AT ACCENTURE STRATEGY  
AND CONSULTING,  
CO-FOUNDER AMOH TRUST  
IIM INDORE (2022),  
B.Sc. H. Math (2019)

**AKANKSHA YADAV**  
SENIOR ASSOCIATE, STATE STREET GLOBAL ADVISORS  
EXEMPI NON OFFICER, CREDIT SUISSE  
IIM LUCKNOW (2015),  
B.Sc. H. Math (2013)

**COORDINATORS:**  
Simran Samant (President)  
820806469  
Ishika (Vice President)  
7027375070

Dr. Manki Arora (Teacher-in-Charge)  
Dr. Bhavina Bansal Gupta (Staff Advisor)

Ms. Apalesha (Staff Advisor)  
Mr. Mohit Maccruff (Staff Advisor)  
Mr. Manoj Rawat (Staff Advisor)

3. **Origin 2024, the annual fest** of the Department of Mathematics was held on **February 29, 2024**, marking a leap day dedicated to innovation and celebrating Srinivasa Ramanujan. The fest featured diverse events, starting with Innovex, a business and investment simulation in three rounds: a mathematical quiz, stock investment analysis, and a product marketing pitch. The debating event, Debatrix, tackled whether traditional "Chalk and Talk" methods are obsolete in the digital age. The Mathiest treasure hunt drew enthusiastic participation, with eight top teams solving campus-wide challenges. In Mathemagica, a workshop on Mathematica software, participants competed in a series of rounds. Color Coded Clues tested extempore and puzzle-solving skills. A screening of "Ramanujan: The Man Who Knew Infinity" celebrated his legacy, sparking discussions on his contributions to modern mathematics, including applications in black hole theory. The fest concluded with stalls, quizzes, and engaging activities, making Origin 2024 a successful celebration of mathematics, fostering creativity, and honoring the spirit of mathematical innovation.



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