

ANNUAL REPORT

Department of Mathematics, Aryabhata College

Academic Session- 2021-22

Webinar: Convection – Diffusion Model

Date: 28th Jan 2022

About the Speaker:

Dr. Navnit Jha is an Associate Professor in the Department of Mathematics at South Asian University. He has completed his Ph.D. from University of Delhi in 2004. He has more than 10 years of teaching experience at graduate and postgraduate level. His research area includes 'Scientific Computing, Parallel Algorithms, and Differential Equations' and he published many research papers on National and International level in the same area.

About The Talk:

The Department of Mathematics of Aryabhata College organized an online talk on the topic "Convention-Diffusion Model" by Dr. Navnit Jha. The talk began with a welcome note by honorable principal, Prof. Manoj Sinha, of the college who encouraged the students to participate in the talk and thanked Dr. Jha to accept the invitation to deliver the talk. The talk was very fruitful, all the faculty members and almost 80+ students participated in the talk. First of all Dr. Jha explained basic terminology related with the topic. Then, he exhibited a number of examples and described how the Convention-Diffusion Model can be associated with real life. He also discussed various research scopes available in this topic. He motivated to those students to pursue research in this area, who are in particular interested in applied mathematics. Further, he explained different applications of parabolic partial differential equations, studied by the students at graduate level in Convection effect, Diffusion transport interaction, Option pricing, Fluid flow, Image processing and Information processing. The speaker concluded his talk by briefly explained about Divided difference formula, Higher order approximations, Quantum Derivative, and Fractal Derivative.

At the end, Dr. Naveen Kumar Jain presented the vote of thanks to the speaker, for delivering such an informative talk in such a nice manner, and to the principal for all his kind support in organizing the talk. He also paid a vote of thanks to the teacher in-charge of the department, Dr. Chandrashekhar Nishad, all the faculty members and participants to make the event successful.

Some glimpses:



DEPARTMENT OF MATHEMATICS
 ARYABHATTA COLLEGE
 University of Delhi



invites you

WEBINAR ON

CONVECTION-DIFFUSION MODEL

BY

DR. NAVNEET JHA

ASSOCIATE PROFESSOR
 DEPARTMENT OF MATHEMATICS
 SOUTH ASIAN UNIVERSITY



LIVE On Google Meet

01:30 PM
 JANUARY 28, 2022

For Any Queries, Contact
 Sudarshan : 74190 39491
 Gautam : 85278 07363

Teacher Coordinator
 Dr. Naveen Kumar Jain

Teacher Coordinator
 Dr. Rattan Lal

Teacher In-Charge
Dr. Chandrashekhhar Nishad

Principal
Prof. Manoj Sinha



13:35 | nnb-jxe-sis

Navnit Jha is presenting

Convection-Diffusion Phenomenon

Mass transfer: Transport of mass from one point to another.
Convection is mass transfer due to the bulk motion of a fluid.

Ex:

(a) The flow of water transports molecules that are dissolved in the water.
 (b) The flow of air transports molecules (e.g., oxygen and nitrogen) present in air, and dilute carbon dioxide.

Diffusion is a mass transfer phenomenon that causes the *distribution* of a chemical species to become more uniform in space as time passes.

When molecules are moving but also constantly changing direction, diffusion occurs because of the statistics of this movement.

13:39 | nnb-jxe-sis

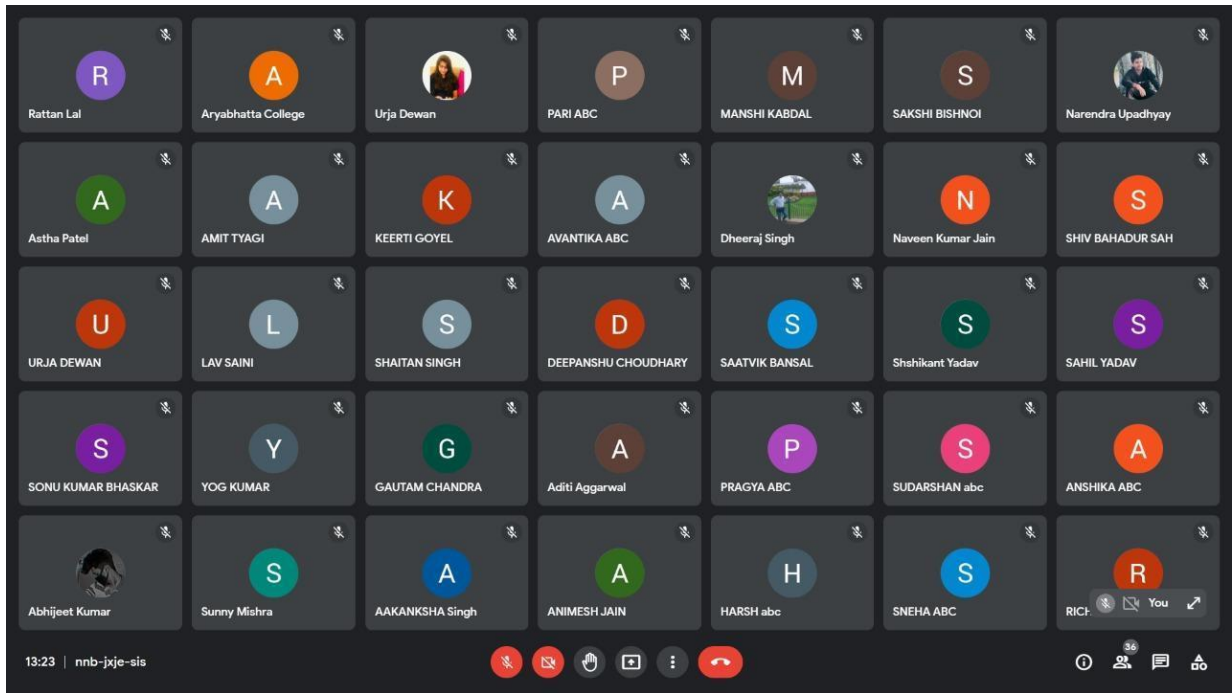
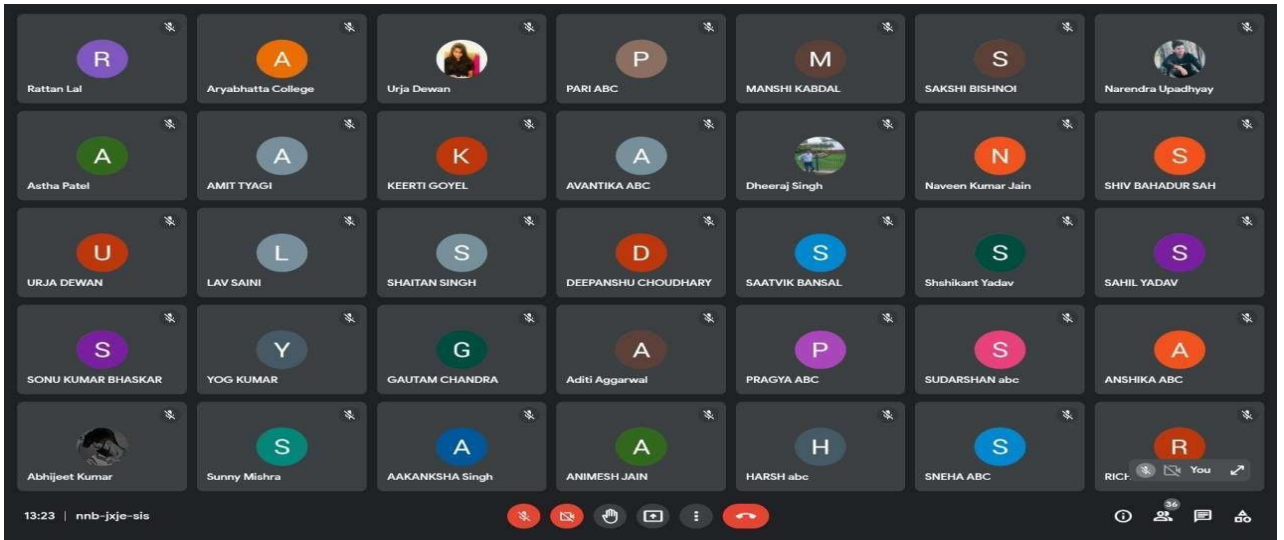
Navnit Jha

AKASH NEGI

GAUTAM CHANDRA

Aryabhata College

69 others



Alumni webinar (Volume-1)

Date: March 5, 2022 (Saturday)

Time: 11:30am onwards

Venue/Platform: Google Meet

About the Speaker:

Mr. Mayank Bamola is a Data analyst at IHS Markit. He holds a bachelor's degree in Mathematics from Aryabhata College (batch of 2016-19), University of Delhi. Currently, he is pursuing MCA from University School of information, Communication and Technology, GGSIPU.

The Event:

On March 5, 2022, the Department of Mathematics of Aryabhata College conducted a webinar with career counselling as theme and our alumni Mr. Mayank Bamola as a speaker whose topic of the talk was “**A glimpse of my journey from confusion to clarity**”. The webinar began with an introduction of the speaker by our student coordinator Ms. Avantika. The introduction to the event was given by the teacher-coordinator Ms. Aakanksha Singh who further invited our respected Principal (Prof.) Dr. Manoj Sinha to deliver the welcome address and formally open the session. Principal Sir shed light on how this topic of the webinar is imperative for the students to clear all their confusions about what to do after graduation, and thanked Mr. Bamola for agreeing to conduct this fruitful session.

Further, Mr. Bamola elucidated on the basics of how the topic is relevant and necessary for the students for clearing all their doubts. He started by talking about his journey from a student to a working professional. He said that the major problem with all students is that they don't know what to do after graduation and that confusion is the first step towards clarity.

He told us about the options that we have after doing B.Sc. (Hons) Mathematics. If we are really interested in Mathematics then we should go for M.Sc. (Maths), M.Sc.(Stats), or MSc.(Statistics/Operational Research). The other option is going for government jobs like SSC, Banks, UPSC, etc. Another line of options could be IT Sector by doing MCA, MBA, Masters in Data Science, etc.

Next in order, he briefed about the different languages we can learn like Python, R, Java, C++, etc. to have more scope for getting the jobs. Lastly, he talked about the preparation for the placement drive. After the talk, the students asked plentiful queries and the speaker gladly catered to all of them.

To sum up, the webinar was elucidative and extremely constructive for the students. In the end, Avantika presented the vote of thanks, thanking Mr. Bamola for the immensely insightful session, Principal sir (Prof.) Dr. Manoj Sinha for all his support, Dr. Chandrashekhhar Nishad (Teacher-in-Charge) and Ms. Aakanksha Singh (Teacher Coordinator) and other faculties of the Mathematics Department for making this event successful.

Faculty members who attended the event-

Dr. Manoj Sinha (Principal sir)

Prof. Narender Kumar

Dr. Naveen Kumar Jain

Ms. Aakanksha Singh

Dr. Chandrashekhhar Nishad

Shri Dheeraj Kumar

Student Organisers-

Gautam Chandra, MAT/20/40 (President)

Urja Dewan, MAT/20/42 (Vice President)

Aditi Aggarwal, MAT/20/41 (Secretary)

Ashutosh Bhatia, MAT/20/46 (Joint Secretary)

Saatvik Bansal, MAT/20/19 (Treasurer)

Sudarshan, MAT/19/3

Avantika, MAT/21/45
Keerti Goyal, MAT/21/18
Udit Kumar Roy, MAT/21/52
Astha Patel, Mat/21/25
Aaryan Nandwani, MAT/21/14
Manya Shah, MAT/21/34
Manshi Kabdal, MAT/20/59

Student Attendees-

The event was attended by 46 students from the department.

Event Poster:

The poster is for a webinar titled "A GLIMPSE OF MY JOURNEY FROM CONFUSION TO CLARITY" by Mayank Bamola, a 2019 batch graduate of the Department of Mathematics at Aryabhata College, University of Delhi. The event is scheduled for March 5, 2022, at 11:30 AM on Google Meet. The poster features the department's logo, a portrait of Mayank Bamola, and contact information for the organizing staff.

DEPARTMENT OF MATHEMATICS
ARYABHATTA COLLEGE, UNIVERSITY OF DELHI
INVITES YOU

ALUMNI WEBINAR
A GLIMPSE OF MY JOURNEY FROM CONFUSION TO CLARITY

BY
MAYANK BAMOLA
Batch of 2019
B. Sc. (Hons) Mathematics
Aryabhata College

Date:
March 5, 2022

Time:
11:30am

Platform:
Google Meet

Teacher In-charge: Dr. Chandrashekhar Nishad
Teacher Coordinator: Mrs. Aakanksha Singh
Principal: Dr. Manoj Sinha
Student Coordinators: Sudarshan (+91 7419039491)
Urja (+91 8700051255)

Event Gallery:



028_Mayank Bamola

11:27 | vri-ffao-zqe

Participants in grid:

- AAKANKSHA Singh
- Narender Kumar
- UURJA DEWAN
- SAATVIK BANSAL
- Chandrashekar Nishad
- AYUSH RAJ
- Urja Dewan
- Aryabhata College
- Sakshi Bishnoi
- Muskan Rana
- JATIN ABC
- You

028_Mayank Bamola is presenting

Confusions?

CONFUSION IS THE FIRST STEP TOWARD CLARITY.

meet.google.com is sharing your screen. Stop sharing Hide

11:43 | vri-ffao-zqe

Participants in grid:

- You
- SAATVIK BANSAL
- 028_Mayank Bamola
- AAKANKSHA Singh
- 48 others

028_Mayank Bamola is presenting

My Learning during Post Graduation cont.

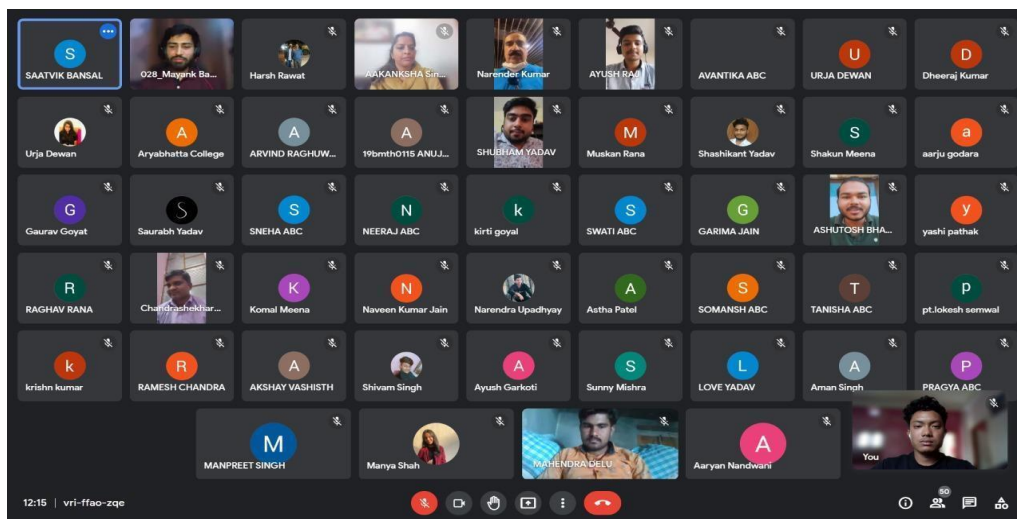
Computer Science, Machine Learning, Statistical Mathematics, Data Science, Business Analytics, Software Development, Business

meet.google.com is sharing your screen. Stop sharing Hide

11:53 | vri-ffao-zqe

Participants in grid:

- You
- 028_Mayank Bamola
- AAKANKSHA Singh
- SAATVIK BANSAL
- 54 others



Annual festival : Σ igma'22

Date: 18-19 April 2022

The department of Mathematics at Aryabhata College organized their Annual Fest- Σ igma'22 on 18-19 April 2022, 12pm-6pm. It was a two-day event filled with a lot of activities and games. The list of events is as follows:

1. Speaker Session:

Invited a renowned professor from our college, **Dr. Devender Singh** to give a lecture on the topic "Teachings of Aryabhata". This was followed by a movie screening on the life of Aryabhata. The event took place in the conference room, and all the first- and second-year students from the department of mathematics were in attendance.

2. Chess

This event consisted of multiple rounds of chess matches between participants from across Delhi University. There was a total of 47 participants, and the event took place in the sports room.

3. Table Tennis

This event consisted of multiple rounds of Table Tennis matches, and the winner of each match qualified for the next round. There were over 25 participants from across Delhi University, and the event took place in the sports room.

4. Treasure Hunt

6 teams from our college participated in this event. The teams were given color-coded tags, and one hint on the entry point, and further hints were hidden across the entire college. Each team had to solve 5 riddles to reach the final prize.

5. Open Mic

The open mic session was held in the area in front of the library, where interested students got an opportunity to showcase their talents in a non-competitive manner.

Fest Gallery:





Volunteers:

1. Gautam Chandra (President)
2. Urja Dewan (Vice President)
3. Aditi Aggarwal (Secretary)
4. Ashutosh Bhatia (Joint Secretary)

5. Saatvik Bansal (Treasurer)
6. Avantika Mishra (I)
7. Somansh (I)
8. Udit Kumar Roy (I)
9. Aaryan Nandwani (I)
10. Manya Shah (I)
11. Medha (I)
12. Astha (I)
13. Kirti (I)
14. Pragya (I)
15. Anushka (I)
16. Manshi (II)
17. Raj Singh (II)
18. Shubham (II)
19. Ayush Raj (II)
20. Manpreet (II)