

Pi: Department of Mathematics, Hansraj College.

About the Society

Pi: Department of Mathematics, Hansraj College, one of the most prestigious departments of the Delhi University, is a quintessence of the most amazing minds forming a family. With its foundations laid by very fine mathematicians such as Prof. Shanti Narayan, Prof. M.C. Puri, Prof. S. C. Arora, and Dr S. R. Arora, and Dr. Harbans Lal, Dr. K. L. Bhatla, Dr. N.M. Kapoor, Dr. Satpal, and Sh. J. P. Pruthi as guiding lights, the department has always strived to nurture and create global leaders and has made a name for itself for its academic excellence. The department aspires that its students get the most out of their time studying at college through classroom teaching combined with co-curricular experiences.

The department never fails to surprise everyone with the dynamism of its teachers and students. Year after year, it keeps on setting higher benchmarks for itself. Along with regular classes, a lot of emphasis is given to 'hands-on' exposure to modern software such as Mathematica, Matlab and LaTeX through practical and tutorial classes. Following the tradition of dedication and excellence in this diverse subject, the department here comprises highly qualified academicians with specializations in analysis, Algebra, mathematical Programming and cryptography.

Department offers B.Sc. (H) in Mathematics. Those pursuing the course can look forward to the development of their logical ability and analytical skills. Students graduating from the department have had a world of career options. A reasonable number go for masters in pure or applied mathematics to prepare themselves for research and teaching. Others have excelled in their chosen fields that include statistics, actuarial sciences, operation research, management, law, and the civil services.

Convener name: Dr. Preeti Dharmarha

Co-conveners and members (from the faculty), if any

1. Dr. Mukund Madhav Mishra

2. Dr. Jyoti Bhola
3. Ms. Kriti Wadhwa
4. Mr. Brij Mohan

Student members (with positions held)

President: Aman Chaudhary

Vice President: Anvesha Kushwah

General Secretary: Amjad Rehan Ibrahim

Aankalan Editor-In-Chief: Utcارش Mathur

Treasurer: Sanya Kapoor

Report of EVERY EVENT/workshop/seminar organized/participated in the Academic Year 20-21

Event 1: 12th July, 2021 – Farewell of Batch 2021

To bid goodbyes to the batch 2021, the department organized an online farewell, which consisted of poetry, music, games and whatnot. Everyone was overwhelmed, even the teachers, while addressing the outgoing batch. This is how the batch of 2021 officially graduated.

Event 2: 12th July, 2021 - Aankalan Launch

Department of Mathematics, Hansraj College released the second edition of Aankalan, the annual mathematics journal on July 12, 2021.

This edition contains articles on a plethora of topics from Pure and Applied Mathematics as well as interview with Dr. SC Arora, former HOD, Department of Mathematics, University of Delhi.

Through the Journal, we hope that students can explore lesser-known areas of study and increase their knowledge base. We hope it sparks their curiosity and enables them to develop research skill at an undergraduate level. The

current edition includes topic from varying fields, such as real analysis, Group Theory, Theory of functions, as well as interesting applications of the subject in nature. The edition concludes, with some interesting mathematical problems and acts in a way that would capture the fancy of students.

Event 3: 25 Apr, 2021 - Lakshya Ep 3 (Cracking UPSC with Maths Optional by IAS Gaurav Kaushal)

In the Episode 3, "Let's crack UPSC CSE with Maths Optional" of Lakshya: The Career Talks, we were honored to have Er. Gaurav Kaushal Sir as our guest speaker. He cracked UPSC CSE-2012 along with SSC CGL-2011 and IIT JEE 2006. His guidance and experience not only obviated the existing doubts but also broke many myths related to this prestigious exam in the minds of young students. He also motivated students to maintain a balance between physical and mental health during this long journey.

Event 4: 14th Mar, 2021 – Pi-Logue Competition

To celebrate the practical significance of Pi, the department celebrated Pi day by organizing a Pi-Logue Competition in which there were two categories, first, to recite the maximum number of digits of Pi after decimal, and, second, to recite the first 50 digits of Pi after the decimal in minimum time. Some spectacular records were set, the winner of the first category recited 400 digits after the decimal and the winner of second category recited 50 digits after decimal in 6.71 seconds.

Event 5: 7th-8th Mar, 2021 - Annual Academic Meet: Shree Shanti Narayan Mathematics Conclave (A 2-day event)

The two-day event dedicated towards the honour of Late Professor Shri Shanti Narayan Sir.

Day 1 (March-7, 2021)

5a) Speaker session: *Probability Models for Performance Prediction of Hardware and Software Systems, presented by Dr Madhu Jain.*

Probability models play an important role in quantitatively predicting various performance metrics of day-to-day as well industrial problems encountered in computers, communication, production, etc. These are straight from the files of Dr Madhu Jain's experience, who is a connoisseur practising Mathematics at IIT Roorkee. She gave a more elaborate example using Sixth Sense Technology having a plethora of gadgets clubbed into one. Deciphering of queries put on by participants by Madhu Ma'am wrapped up the speaker session of day 1.

5b) Paper Presentation Competition

Who says Paper Presentations are boring and monotonous? The event offered an insight into various topics like Encryption, Symmetry, Definitive Dissonance, Mathematics behind Deep Fakes, Dance, Quantum Calculus, Mathematics tools in Fraud Detection, and the Application of Mathematics in Digital Image Processing. The teams, as stated in the directory, were given a stipulated time to present their papers. The competition was indeed cutthroat which was followed up by some grilling by the judges. This is how day one was called in jubilation and exhilaration.

Day 2(March-8, 2021)

5c) Epilogue Round of 'The Annual Quiz Competition'

The Mathematics Department, in pursuit of finding the next maverick, conducted some mind-bending riddles. There was a stipulated time to respond to the questions asked and a penalty was awarded for every wrong response. The questions were set up from a wide array of poles i.e., geometry, real analysis, calculus etc. The participants had a very competitive rollercoaster while guessing both wrong and right attempts.

5d) Speaker Session: Random Walk in the World of Dynamics, presented by Prof. Riddhi Shah.

Dynamism is a prerequisite for evolution. Combining the importance of it with the flagship faculty of Physical Sciences at JNU, Professor Riddhi Shah took Dynamics to a completely new level. She supplemented the aura of the event with her experience in the field. The session started with some briefing on dynamic systems, the topological spaces and their nature change in discrete/continuous time. The seminar ended with Riddhi Ma'am introducing Indian Women in Mathematics to the participants and the session's motive to encourage women in coming forward and taking mathematics as a course to master and change the world and reflect dynamism.

5e) Panel Discussion on "Women in the world of Mathematics: The Road Ahead"

(Panelists: Prof. Riddhi Shah, Prof. Shobha Bagai and Prof. Geetha Venkataraman)

On the occasion of International Women's Day, the panelists shared their experiences in the world of mathematics. The event commenced with Professor Shobha Bagai from Cluster Innovation Centre, Delhi University sharing her experience in pursuing mathematics as a career. She discussed

the lack of women in this field. She emphasized the need to increase the number of women since it is the number of women that determines the field's strength. Prof. Riddhi Shah shared her experience in pursuing mathematics. She was determined to change the psyche of women's education in the social arena. Although, she was firm on her stand for women's rights in education, Prof. Geetha Venkataraman from Dr B.R. Ambedkar University Delhi did hit the nail for stereotyping women's education. She gave her experiences as a warning that no one can restrict a girl to pursue her choices, except herself.

This is how the Department of Mathematics of Hansraj College called another event at a successful play.

Event 6: 3rd Mar, 2021 - Lakshya Ep 2 (Unveiling Higher Mathematics with Arvish Dabra)

In Episode 2, "Unveiling Higher Mathematics" of Lakshya series, Master Arvish Dabra, an IIT Delhi student, NBHM Fellowship awardee, and a Hansraj College Graduate guided the students about prestigious competitive exams like IIT JAM Mathematics, CSIR NET, etc. and talked about the opportunities one can avail through JAM: IISCs, ISSERs, TIFR, etc. The session was successful in its objective to broaden students' views about their career options.

Event 7: 20th Feb, 2021 - Lakshya Ep 1 (Acing GMAT with CJ)

Episode 1, "Acing GMAT with CJ" of Lakshya series focused on the preparation strategy for GMAT with Mr. Chiranjeev Singh, an IIM Ahmedabad alumnus, who is a highly skilled GMAT coach, as the chief speaker. He enlightened the students on essential questions like 'the

parameters on which one is tested in GMAT', 'decent score', 'need for practice', 'the right approach towards problems', etc.

Event 8: 9th Feb, 2021 - Mathematical Workshop

A mathematical workshop was organized by the department on 9th February, 2021. The panel of experts consisted of Dr Jyoti Sharma, Associate Professor in Education at Cluster Innovation Center and Joint Director at ILLL, University of Delhi, and Dr Sonam Tanwar, Assistant Professor in Mathematics at Cluster Innovation Center, University of Delhi. Dr Jyoti talked about, "How to Plan Projects?: An Investigatory Approach to Learning" by discussing the Basic Number System. Dr Sonam gave us insight about various mathematical softwares like Mathematica, MATLAB, and MAPLE.

Event 9: 23rd Jan, 2021 - Meet and Greet

With the onset of the new academic session, the department organized, a 'Meet-and-Greet' session to extend a hearty welcome to the freshers. The session was conducted on an online platform, keeping in mind the restrictions and precautionary measures posed by covid-19. It was enthralling to see the cheerful faces and creative minds all geared up for the college. The event commenced with a short welcome message delivered by the department heads and a video showcasing life at Hansraj, followed by a brief introduction of teachers and department heads. Both students and teachers participated with great zest and zeal in all activities. The event wrapped up with an enjoyable interaction between the juniors and seniors to provide a taste of college life to the freshers.

Event 10: 1st Jan, 2021 – Website Launch

After months of hard work and dedication, Maths Department launched its new self-made, responsive website. Through this platform, we endeavor to provide you all with an easier way to know about our prestigious department where we will keep you updated about our events, seminar, etc. The website is not only interactive and user-friendly, but it also gives better access to our Annual Journal Aankalan, which contains astonishing things like interviews with prominent mathematicians, mind-boggling articles and fascinating mathematical puzzles. Our website also contains integrated social media links for other platforms like LinkedIn, Facebook and Instagram page

Event 11: 5th Sept, 2020 – Teacher's Day Celebration

Who says heroes are found flying against gravity towards the sky, dressed in flowing capes and mysterious masks? Heroes of this world are found in classrooms. Yes, they are none other than our teachers. This year, students of PI: The Department of Mathematics organized an online Teachers' Day program to thank some of the most important people of our lives, the ones who impart knowledge and instruct us. Teachers are the doctors without stethoscope that every child in our country must have access to, to be able to cross his/her set of crevasses and walls. Second and third-year students participated in this event very heartily to honor our hardworking and loving teachers. The program commenced by welcoming all the teachers, followed by listening to the teachers' experience of their teaching life, which was the cherry on the cake. The students planned a very amazing event, outstanding dance performances, melodious songs, musical instruments, funny and emotional poems to thank our teachers. Our teachers enjoyed this program very much and appreciated us for our efforts to make this online Teachers'

Day memorable for them. At last, we all thanked our teachers from the bottom of our hearts for their selfless passion and hard work towards educating the future of this nation.

Awards and achievements in the academic year 2020-21

IIT JAM RANKERS (3RD YEARS)		
S.no	Name	Rank
1.	Aman Chaudhary	AIR-08
2.	Ayush Tyagi	AIR-51
3.	Achhaya Pathak	AIR-110
4.	Shubhdeep Das	AIR-297
5.	Nancy Rathee	AIR-417
6.	Gaurav Kumar	AIR-572
7.	Shivam Baurai	AIR-642

S . n o	Y e a r	Name	Achievements
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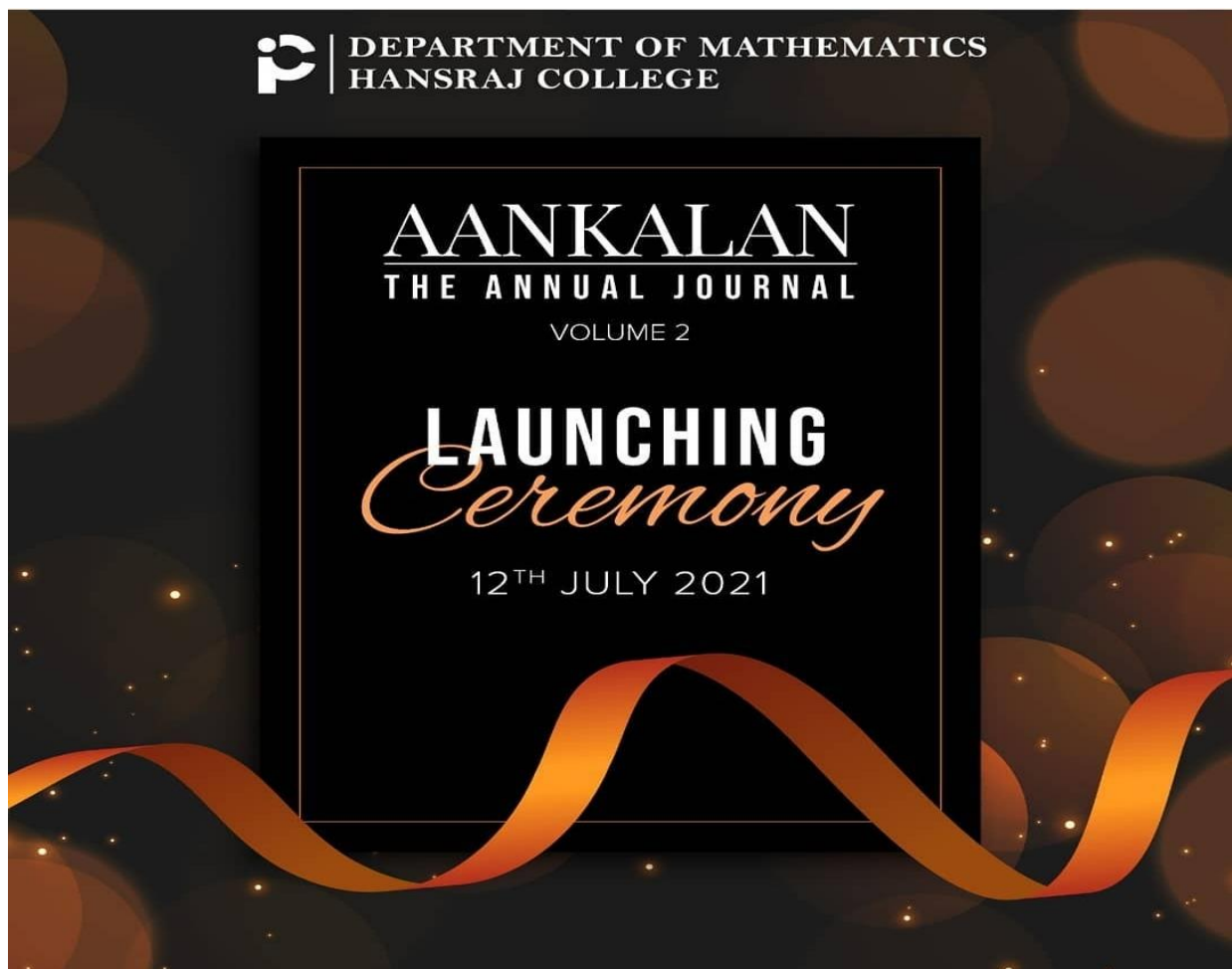
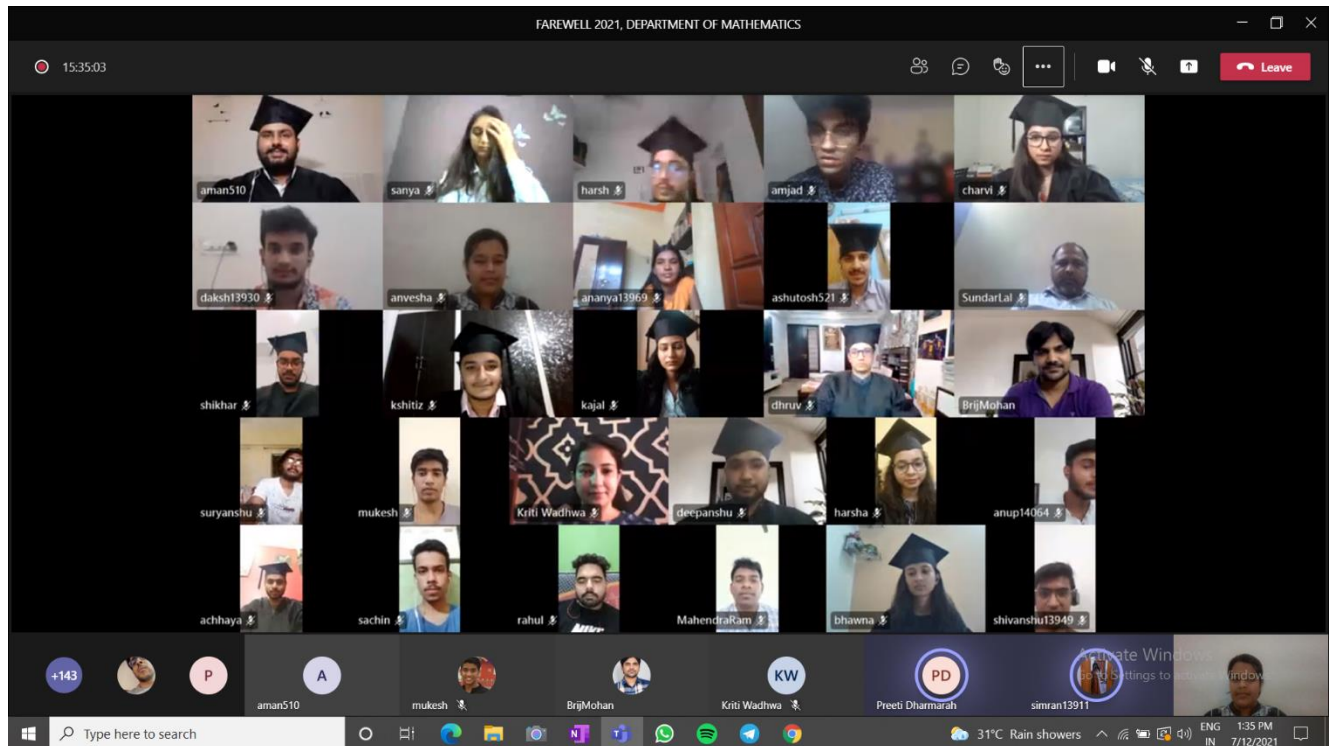
1	3 r d	Rohit Lal	Bagged placement in DE Shaw - Financial Research Associate 90th with a package of 18.75 lakhs.
2	3 r d	Aman Chaudhary	Published article "Summability Theory and the Enigma of -1/12" in the Ramanujan Mathematical Society Newsletter. https://drive.google.com/file/d/19yaDG6ngE0CQJLOxjn52UevXHQR3bv-u/preview
3	2 n d	Utarsh Mathur	Published article "Crests and Troughs: the Economics of Music" for ZHDC. https://ecozhdc.wordpress.com/2020/08/08/crests-and-troughs-the-economics-of-music/ Was invited as one of the panelists at Girl Up Ruhi (SSCBS) panel discussion on the topic "Women Empowerment: what's in it for me?" Published paper "The Distinguishably Divergent Grandi's Series" at JMC's Journal.
4	2 n d	Yash Jain	Currently working as a Data Analytics Intern at Protrainy Skilled Learning Private Limited.
5	2 n d	Sahil Singh	Awarded National Champion - Enactus India National Convention and Competition 2020. Represented India and became Global Finalists (Top 4) - Enactus World Cup 2020.
6	2 n d	Tarushi Bansal	Won silver medal at CBSE Table Tennis National. Was a semi-finalist in SGFI Table Tennis National.

7	2 n d	Anvesha Kushwa h	<p>Bagged first prize in "Nehle pe Dehla" (Debate competition) organized by SRCC.</p> <p>Received second prize in Conventional Debate organized by Hindi Debating Society, JDMC.</p> <p>Awarded third prize in open mic competition organized by Department of Mathematics, Kalindi College.</p>
8	2 n d	Pallav Chauha n	<p>Won 1st prize in shoe painting competition and "Art-e-Mix" held in DTU.</p>
9	2 n d	Utarsh Mathur, Priyanka Chopra and Mukesh Kumar	<p>Bagged 1st position at JMC's paper presentation competition.</p>
1 0	2 n d	Sanya Kapoor and Priyanka Chopra	<p>Secured 1st position at "Inquivesta 2021" organized by Society of General Awareness, Hansraj college.</p>
1 1	1 s t	Daksh Dheer	<p>Secured second rank at Miranda House paper presentation, 2021.</p> <p>Awarded best Interjection at Miranda House paper presentation, 2021.</p> <p>Secured second rank at Hindu College, Maths Competition - Matheletics 2021.</p>

1 2 .	1 s t	Simran Singh	<p>Secured first position in reciting max digits of Pi (400 digits) in “PI-LOGUE” competition held by Department of Mathematics, Hansraj college.</p> <p>Got special mention in Stellar 2021 (Slam poetry).</p> <p>1st position in Dramatics Improv competition organized by IIT Ropar</p>
1 3 .	1 s t	Pragya	<p>Won first place in “PI-LOGUE” competition held by our Department of Mathematics, Hansraj college for reciting 50 digits of pi in minimum time (6.72 sec).</p>
1 4 .	1 s t	Ishika	<p>Received 1st prize in "Solution, no pollution" competition organized by GWC held in Midori'21.</p>
1 5 .	1 s t	Sanskriti Jha and Daksh Dheer	<p>Secured 1st position as a team in Paper Presentation at Modulus'21, Department of Mathematics, Keshav Mahavidyalaya.</p>

Website: <https://mathshrc.com/>

Photographs

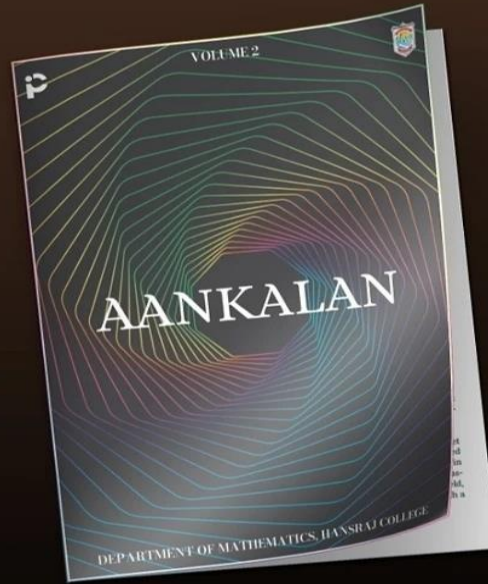


DEPARTMENT OF MATHEMATICS
HANSRAJ COLLEGE



AANKALAN

VOLUME 2



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Let's Crack UPSC with Maths Optional

15:20:04

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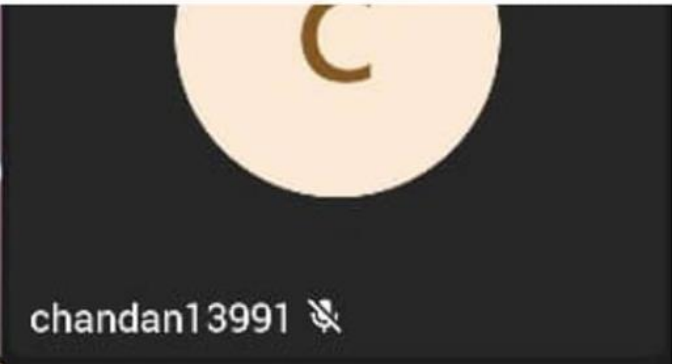
Gaurav Kaushal (Guest)

aman510

Activate Windows
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ENG 4:56 PM
IN 4/25/2021



—PI-LOGUE—

THE PI DIGITS RECITING COMPETITION
MARCH 14, 2021

RESULTS

**CONTEST 1:
RECITING FIRST 50 DIGITS
OF PI IN MINIMUM TIME.**

Winners:

*-Aman Chaudhary (6.71 sec)
-Pragya (6.72 sec)*

**CONTEST 2:
RECITING MAXIMUM DIGITS
OF PI (NO TIME BOUND)**

Winner:

-Simran Singh (400 digits)



DEPARTMENT OF MATHEMATICS
HANSRAJ COLLEGE

presents

—PI-LOGUE—

THE PI DIGITS RECITING COMPETITION

on the occasion of

INTERNATIONAL PI DAY

MARCH 14, 2021
11 AM ONWARDS



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mathshrc.com



[mathsdept_hansraj](https://www.instagram.com/mathdept_hansraj)



Zoom Webinar

Recording **LIVE** on Facebook

Total non-video participants: 1

Speaker View

Chat

From Ritik Bhagat to All panelists and attendees:
it was a very inspiring discussion ma'am

From Paramarsh Hansraj College to All panelists:
Inspiring Panel Discussion !

From Identity HRC to All panelists and attendees:
Really an eye catching and worth appreciating, panel discussion.

From Me to All panelists:
Very inspiring
Very true mam
Thankyou so much mam

From Me to All panelists and attendees:
Congratulations

From Sanya Kapoor to All panelists and attendees:
Congratulations 🎉

From Prof. Geetha ... to All panelists and attendees:
congratulations to the winners

From Mukesh Kumar to Me: (Privately)
Congratulations

From Ms. Kriti Wad... to All panelists and attendees:
congratulations to the winners

From Me to All panelists and attendees:
congratulations to all the winners

From Sakshi Rai to All panelists and attendees:
Congratulations everyone
mam im joining from mobile phone

To: All panelists and attendees

Type here to activate Windows.

Type message here...

Unmute Stop Video

Participants 42

Q&A Chat Share Screen Record

Leave

Type here to search

ENG 5:10 PM 3/8/2021

ANNUAL ACADEMIC MEET:
SHRI SHANTI NARAYAN MATHEMATICS CONCLAVE - 2021
PRESENTS



PAPER PRESENTATION

MARCH 07, 2021 11:30 AM ONWARDS



Zoom Meeting Interface showing a shared PDF slide.

Browser address bar: C:/Users/Prof%20Madhu%20Jain/Desktop/Talk_8_March%202021_Hansraj%20College_Madhu%20Jain.pdf

Slide Content:

- **Failure analysis**
- **Probability models**
- **Statistical Inference**
- **Reliability/ Availability**
- **Mean response time**
- **Quality & Maintainability**
- **Cost and optimization issues**
- **Throughput/ Utilization**
- **Optimal control parameters**
- **Goodput, carried load**
- **Optimal testing time, MTTF**

Hardware and Software System
Sixth Sense Technology: An Application

• Developed by Pranav Mistry

Zoom Meeting Controls: Unmute, Start Video, Participants (94), Q&A, Chat, Share Screen, Record, Leave

Windows Notification: Activate Windows. Go to Settings to activate Windows.

LAKSHYA Episode-2 (Unveiling Higher Mathematics with Arvish Dabra)

29:25

Arvish Dabra

aman510

Participants

Type a name

Mute all

- mukesh Organizer
- aman510
- amjad
- anup14064
- arvesha
- Arvish Dabra External
- priyanka
- ritik7465
- sanya
- shiv13913
- shivanshu13949

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17:34 03-03-2021

LAKSHYA Episode-2 (Unveiling Higher Mathematics with Arvish Dabra)

01:05:02

Arvish Dabra

+54

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18:09 03-03-2021

LAKSHYA- Episode 1 Acing GMAT with CJ

41:14

Request control

Participants

Type a name

- divya14077
- dushyant13925
- gamini14017
- Gargie (Guest)
- gaurav13955
- hemlata14022
- himani11085
- hiya13923
- indra14045
- ishita
- Ishita Rastogi-133019 External
- jaspinder13910

guestathansraj (Guest)

+93

amjad

anvesha

priyanshi garg (Guest)

guestathansraj (Guest)

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ENG IN 17:38 20-02-2021

LAKSHYA- Episode 1 Acing GMAT with CJ

43:40

Request control

Participants

Type a name

- divya14077
- dushyant13925
- gamini14017
- Gargie (Guest)
- gaurav13955
- hemlata14022
- himani11085
- hiya13923
- indra14045
- ishita
- Ishita Rastogi-133019 External
- jaspinder13910

guestathansraj (Guest)

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anvesha

simran13911

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priyanshi garg (Guest)

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guestathansraj (Guest)

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ENG IN 17:40 20-02-2021


DEPARTMENT OF MATHEMATICS
HANSRAJ COLLEGE
PRESENTS




meet & greet

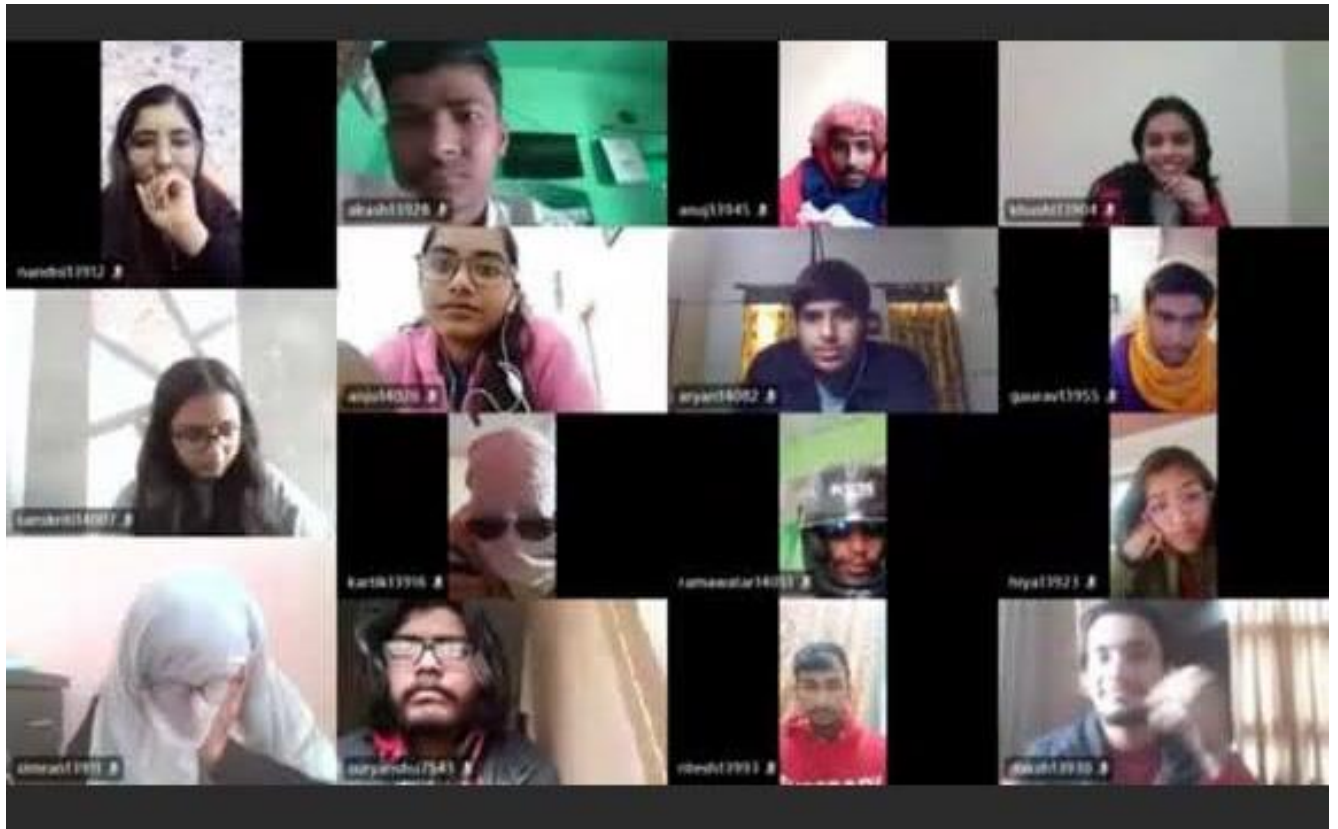
WELCOMING OUR
BATCH OF 2023

23 JANUARY | 11:40 AM ONWARDS | ON MSTEAMS

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Hansraj College

announces

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Logo of the Society

