

Intra-department Power Point Presentation Competition (Feb 28, 2017)



Intra-Department PowerPoint Presentation Competition

On February 28, 2017, the Department of Mathematics hosted the Intra-Department PowerPoint Presentation Competition in Room AC-402. This event provided an excellent platform for students from different classes to

collaborate, showcasing their teamwork and intellectual prowess. The competition highlighted a fascinating blend of topics, celebrating the contributions of great mathematicians and demonstrating the diverse applications of mathematics in everyday life.

Participants were not only tasked with gathering in-depth information on their chosen topics but also challenged to present their findings in innovative and engaging ways. They delved deeply into their subjects to confidently handle the interactive Question-and-Answer round.

The presentations covered a wide array of topics, including:

- **Applications of Probability**
- **Fibonacci Sequence and Golden Ratio**
- **Vedic Mathematics**
- **Riemann Hypothesis and Riemann Surfaces**
- **Cryptography and its Applications**
- **Lake Pollution Model**
- **Riemann Integration**

Every participant delivered a commendable presentation and handled questions with poise. The competition concluded with the following winners:

- 🏆 **First Prize:** Rajat Taneja and Nikita Saini (B.Sc. (Hons.) Mathematics, 4th semester) for their presentation on **Cryptography**.
- 🏆 **Second Prize:** Lokesh Kohli (M.Sc. (Hons.) Mathematics, 2nd semester).
- 🏆 **Third Prize (Tie):** Himanshu Garg and Sangeeta Sharma (M.Sc. (Hons.) Mathematics, 2nd semester).

The event was vibrant and smoothly executed, attracting a large audience of enthusiastic students. The competition was judged by Er. Inderjeet Singh (Assistant Professor, Electronics Engineering), Dr. Sarika Verma, and Mr. Avtar Chand from the Department of Mathematics.

Overall, the competition was a resounding success, providing both learning and inspiration to all who attended.

Science Academies Lecture Workshop-2017



DAV UNIVERSITY

JALANDHAR

DEPARTMENT OF MATHEMATICS

SCIENCE ACADEMIES' LECTURE WORKSHOP ON ALGEBRA AND NUMBER THEORY

September 8-9, 2017

FUNDED BY



INDIAN ACADEMY OF SCIENCES



INDIAN NATIONAL SCIENCE ACADEMY



THE NATIONAL ACADEMY OF SCIENCES

ABOUT THE ACADEMIES



INDIAN ACADEMY OF SCIENCES

The Indian Academy of Sciences (IASc), Bangalore was founded in 1934 by C. V. Raman. Its objectives include promoting the progress of science in pure and applied branches. Major activities include organizing meetings for discussions on important topics, publication of scientific journals, recognizing scientific talent, improvement of science education and taking up other issues of concern to the scientific community.



INDIAN NATIONAL SCIENCE ACADEMY

The Indian National Science Academy (INSA), New Delhi founded in 1935 is a premier science academy in the country, INSA plays crucial role in promoting, recognizing and rewarding excellence.



THE NATIONAL ACADEMY OF SCIENCES

The National Academy of Sciences (NASI), Allahabad was founded in 1930. The main objective of the academy is to provide a national forum for the publication of research work carried out by Indian scientists.

CONVENER

PROF. KAPIL HARI PARANJPE
IISER, MOHALI

CO-ORDINATOR

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ABOUT THE UNIVERSITY



DAV University, Jalandhar is promoted by DAV College Managing Committee which is India's largest non-government educational organization managing more than 800 institutions in the country.

It has been providing students with an excellent education in modern academic environment. The University traces its roots to the legacy that has been reforming and redefining India's educational scenario for 130 years. The University has been established by a Legislative Act of the Punjab Government and empowered to confer degrees under Section 22 of the UGC Act 1956.

It is a multi-disciplinary institution, home to faculties of teaching excellence in subjects from engineering to languages to natural sciences including physical and life sciences. DAV University is spread across an area of about 72 acres and it provides an ideal ambience for pursuing professional courses and ensuring all-round development of students. The campus is well equipped with modern infrastructure, round-the-clock power backup, canteens and huge parking area.

ABOUT THE DEPARTMENT

In keeping up with the heritage of imparting quality education, teaching and research are the prime areas of concern for the Department of Mathematics. The Department focuses on research and development; science and technology; and meritorious careers in academics and proficient industries. The Department has highly qualified, young and dynamic faculty members. Students gain deep insight into various new areas of research. They get the opportunities to attend seminars and invited/guest lectures delivered by eminent mathematicians.

To meet the latest demands of the industry, the Department keeps on periodically updating and revising its teaching pedagogies, research schemes and introduces new courses. The syllabi of both the undergraduate and postgraduate courses are designed to equip students to qualify exams such as GATE, UGC NET etc. The Department has a well-equipped computer Lab with latest softwares like MATLAB, MATHEMATICA etc.



Srinivasa Ramanujan

ABOUT THE WORKSHOP

The objective of the workshop is to introduce some of the basic facts of algebra and number theory that UG and PG Mathematics students should know. Algebra and number theory are two main branches of modern mathematics which are playing a significant role in the other areas of mathematics. The interaction between algebra and number theory is found to be beneficial in computing and communications as evident from the applications of these subjects in cryptography and coding theory. The main topics to be covered in this workshop are as follows:

- Group Actions and their Applications
- Matrices and Quadratic Forms
- Prime Numbers, Congruences, Reciprocity
- Diophantine Equation and Elliptic Curves

TERMS OF PARTICIPATION

- There is **NO registration fee** for attending the workshop.
- Limited number of participants will be entertained.
- Tea and lunch will be served to the participants.
- No accommodation will be provided.
- Participation restricted to UG/PG students, research scholars and faculty members.

Please visit www.davuniversity.org for application form and details.



The workshop, organized by DAV University in collaboration with the **Indian Academy of Sciences, the Indian National Science Academy, and the National Academy of Sciences**, brought together leading scholars. The event was inaugurated by **Dr. A.K. Paul**, Vice-Chancellor of DAV University, alongside **Dr. Dalasbir Riar (Dean, Academics)**, **Dr. Raka Ralhan (Head, Department of Mathematics)**, and **Dr. Raj Kumar (Organizing Secretary of the Workshop)**.

The workshop featured **advanced academic discussions and interactive sessions** on both **mathematical research and its applications**. Professor Paranjape shed light on the **interdisciplinary nature of Mathematics**, illustrating its profound influence on diverse fields of study.

The event proved to be an enriching experience for students and faculty alike, reinforcing the importance of mathematical research and inspiring young minds to explore the subject with greater enthusiasm.

National Mathematics Day-2018



Report on National Mathematics Day 2018
DAV University, Jalandhar

<p>Important Guidelines:</p> <ul style="list-style-type: none"> ❖ More than one team is allowed in any event. ❖ Judges opinion shall be honored & accepted. ❖ Tea and lunch shall be served to the participants. ❖ Team must reach by 9 a.m and should bring their authority letter and ID cards with them. ❖ Three Distinct Categories of awards for each Event. ❖ No Registration fee. <p>Deadlines for entries:</p> <p>Last Date for registration of Event is 7th Aug. 18'.</p> <p>Kindly ensure timely registration to help us serve in a better way.</p> <p style="text-align: center;">Link for Registration:</p> <p>Contact Details:</p> <table border="0"> <tr> <td>Rajat Taneja</td> <td>Abhay Sankhyan</td> </tr> <tr> <td>7986653336</td> <td>9418776389</td> </tr> <tr> <td>tanejarajat2@gmail.com</td> <td>abhay3938@gmail.com</td> </tr> </table>	Rajat Taneja	Abhay Sankhyan	7986653336	9418776389	tanejarajat2@gmail.com	abhay3938@gmail.com	 <p style="text-align: center;">ORGANIZING COMMITTEE</p> <p style="text-align: center;">Chief Patron Prof (Dr.) Rakesh Kumar Mahajan Vice-Chancellor, DAV University</p> <p style="text-align: center;">Patron Prof (Dr.) Desh Bandhu Dean (Academics)</p> <p style="text-align: center;">Convener Dr. Sarika Verma Head, Department of Mathematics</p> <p style="text-align: center;">Dr. Raj Kumar Assistant Professor, Department of Mathematics</p> <p>Organizing Committee: Dr. Shelly Garg, Assistant Professor Dr. Ajay Kumar, Assistant Professor Dr. Suraj Goyal, Assistant Professor Dr. Himani Arora, Assistant Professor</p>	 <p style="text-align: center;">DAV UNIVERSITY JALANDHAR Department Of Mathematics <i>Organizes</i> National Mathematics Day (2018) On 10th Aug, 18'</p> <p style="text-align: center;">In The Memory of</p>  <p style="text-align: center;">Srinivasa Ramanujan</p> <p style="text-align: center;">Catalyzed and Supported by: NCSTC, DST, GOI & Punjab State Council for Science & Technology Chandigarh</p>
Rajat Taneja	Abhay Sankhyan							
7986653336	9418776389							
tanejarajat2@gmail.com	abhay3938@gmail.com							

National Mathematics Day was celebrated with great enthusiasm at DAV University, Jalandhar, on August 10, 2018. Sponsored by the Punjab State Council of Science and Technology (PSCST), the event paid tribute to the remarkable contributions of the legendary Indian mathematician Srinivasa Ramanujan.

The event commenced with Prof. Dr. Rakesh Kumar Mahajan, Vice-Chancellor of DAV University, serving as the Chief Patron, alongside Prof. Dr. Desh Bandhu Gupta, Dean Academics, as the Patron of the organizing committee. The Chief Guest, Prof. Dr. A. L. Sangal, Dean Student Welfare at NIT Jalandhar, was warmly welcomed by Vice-Chancellor Dr. Mahajan and Registrar Dr. Sushma Arya. In his address, Dr. Mahajan congratulated the Department of Mathematics for organizing the event and underscored the significance of mathematics in science and technology. He also expressed gratitude to PSCST for its generous support.

A highlight of the event was an enlightening lecture by Prof. Dr. Sangal on "Mathematical Models in Daily Life," which offered fresh insights into the practical applications of mathematics.

The celebration featured a range of engaging competitions, including PowerPoint presentations, poster presentations, mathematical rangoli, and extempore sessions. These competitions attracted over 150 enthusiastic participants who showcased innovative ideas on topics such as Mathematical Science, Facts of Pi, Number Systems, and Symmetry. The inclusion of the Mini Militia Game added a creative twist to the event, promoting a fun and relaxed approach to learning mathematics.

A Mathematical Quiz was also held for B.Sc. and M.Sc. (Mathematics) students. The event saw active participation not only from DAV University but also from institutions like HMV College, Doaba College, and

Lyallpur Khalsa College. HMV College, Jalandhar, emerged as the overall champion, winning the prestigious trophy.

The event was seamlessly coordinated by Dr. Sarika Verma, Head of the Mathematics Department, and Dr. Raj Kumar, Assistant Professor. The celebration concluded with a formal prize distribution ceremony, followed by a thoughtful vote of thanks delivered by Dr. Raj Kumar.

Overall, the event was a resounding success, blending education with creativity and inspiring students to embrace the beauty and relevance of mathematics in everyday life.

Lecture by Dr. Chanchal Kumar on ‘Finding Area by Counting Points’





Teacher's Enrichment Workshop (TEW) on Algebra and Multivariable Calculus-2018





Lectures

I. Lectures by Dr. D. K. Khurana (May 25-30, 2018)

In his six lectures, each of one hour from May 25-30, 2018, the following topics were covered:

- **Vector spaces and their basic properties**
- **Existence of basis and invariance of its cardinality**
- **Linear Transformations and Matrices**
- **Change of Basis, Triangulation, and Diagonalization**
- **Modules, Modules over Vector Spaces, Free Modules, Matrices over PIDs, Smith Normal Form**
- **Finitely Generated Modules over PIDs, their Structure, Rational and Jordan Canonical Form**

II. Lectures by Dr. Rahul Kitture (May 25-30, 2018)

Day 1 (May 25, 2018)

In the first lecture, **Group Theory through Symmetries** was introduced, providing a quick link to **Group Actions** and demonstrating several examples of finite groups by considering them as symmetries of some object, such as **Klein-4 Group, Cyclic Groups, Dihedral Groups, and A_4** . Dr. Rahul introduced basic notions in **Group Actions** and proved **orbit-stabilizer theorem**.

As an interesting example, through the group of symmetries of a square—familiar to everyone—it was easy to verify the three theorems of Sylow explicitly (for Sylow-2 subgroups). In the second lecture, he discussed examples of symmetries of **regular polyhedra or some objects**, in which one can naturally see **the orbits**,

stabilizers, and verify the orbit-stabilizer theorem. Specially, he discussed the **orders of groups of symmetries of Platonic solids.**

Day 2 (May 29, 2018)

In the first lecture, the topic was **Group Actions** of a group on a set, which provided a **homomorphism** from the group to the **permutation group** of the set under consideration. As a simple application, he illustrated the **structure of groups of symmetries of Platonic solids.**

In the second lecture, he discussed **groups of isometries of \mathbb{R}^n** with a focus on **finite subgroups of $O(n)$.** With this focus, he proved important theorems regarding **the structure of an isometry group** (composed of **translations and orthogonal transformations**).

Day 3 (May 30, 2018)

In the first lecture, he discussed **Burnside's theorem** on **counting the number of orbits** for the action of a finite group on a finite set and the **finite subgroups of 2×2 orthogonal matrices.**

As a primary insight into the structure of finite subgroups of $O(n, \mathbb{R})$, he introduced **poles on spheres** for a rotation. Then, a **finite subgroup of $O(n, \mathbb{R})$ permutes (acts on) poles of its (non-identity) elements.** This leads to the classification of vertices of a **regular body** inside a unit sphere on which G is acting.

The explicit discussion (proof) of finite subgroups of $O(n, \mathbb{R})$ involved some **amount of pure algebraic computations and associated geometry.**

In the next lecture, he emphasized the **geometric part of the proof**, with attention towards **how the Platonic solids arise for finite subgroups of $O(n, \mathbb{R})$.** Instead of highlighting the **five possible groups**, he discussed **one case in detail**—namely, **the octahedron arises as a case in the classification theorem explicitly.**

Lectures by Dr. D. Surya Ramana (May 31 - June 2, 2018)

In his six lectures of one hour each and one and a half tutorial sessions from **May 31 to June 02, 2018**, the following topics in **Multivariable Calculus** were covered:

1. The **Euclidean structure** of \mathbb{R}^n ; **Cauchy-Schwarz inequality.**
2. **Explicit functions, coordinate mappings.**
3. **Fixed point theorem**, application to **calculation of square roots.**
4. **Linear algebra norms** from \mathbb{R}^n to \mathbb{R}^m , **norms on the space of such mappings.**
5. **Differentiability in several real variables, Derivatives and Basic Examples.**
6. **Hadamard's lemma and the chain rule.**
7. **Directional derivatives, partial derivatives, and the Jacobian matrix.**

Lectures by Dr. Chanchal Kumar (May 31 to June 02, 2018)

Dr. Chanchal delivered a series of six lectures on *Elementary Group Theory* and conducted one and a half tutorial sessions as part of the workshop.

The lectures began with fundamental concepts such as groups, sub-groups, quotient groups, group homomorphisms, and isomorphism theorems, which were introduced during the first two lectures on May 31, 2018. Various aspects of group actions were discussed, incorporating numerous examples. Cauchy's and Sylow's theorems were also covered, along with their applications, on June 2, 2018.

During these sessions, direct product and semi-direct product structures of groups were explored. Additionally, classifications of all groups of order ≤ 16 were examined. A tutorial session was conducted in which participants were given over 20 problems to solve on the first day. These problems were later discussed in both the tutorial and lecture sessions.

Feedback

Feedback for all speakers, as well as for the entire workshop, was collected through prescribed forms filled out by participants. The responses were overwhelmingly positive. All fully completed feedback forms were sent to NCM for record-keeping. On the last day, certificates were distributed to participants who had attended the entire workshop.

Guest Lecture by Professor T.D.Narang on 'Past, Present and Future of Mathematics'-2019





Lecture on 'Past, Present, and Future of Mathematics' Organized by DAV University, Jalandhar

The Department of Mathematics, DAV University, Jalandhar, organized an enlightening lecture on "Past, Present, and Future of Mathematics" on April 3, 2019. The event was graced by esteemed academicians, faculty members, and students who gathered to gain insights into the vast and evolving world of Mathematics.

The session commenced with a warm welcome extended to the distinguished speaker, **Prof. (Dr.) T.D. Narang**, former Head of the Department of Mathematics, Guru Nanak Dev University, Amritsar. **Prof. (Dr.) Rakesh Kumar Mahajan**, Vice Chancellor of DAV University, along with **Dr. Sarika Verma**, Head of the **Department of Mathematics**, and other faculty members, honored the guest with a bouquet, memento, and a heartfelt welcome address.

Prof. (Dr.) T.D. Narang began his lecture with an insightful statement: *"Nothing is interesting if you are not interested."* He emphasized that Mathematics holds a supreme position in various fields, describing it as *"the king of all arts, the queen of all sciences, the mother of technologies, and the heart of engineering."* He elaborated on its vast applications in **Physical Sciences, Biological Sciences, Engineering, Industries, and Robotics**, among others.

While discussing the evolution of Mathematics, he expressed concern over the declining interest among students due to the lack of skilled teachers at the school level. He then took the audience on a historical journey, introducing them to legendary Mathematicians such as **Gauss, Fermat, Ramanujan, Euclid, Abel, and Pythagoras**, highlighting their groundbreaking contributions to the field.

Concluding his thought-provoking lecture, he encouraged students to embrace Mathematics with **devotion, dedication, and hard work**, urging them to stay committed to learning new and emerging concepts in the subject.

The event concluded with a formal **vote of thanks presented by Dr. Raj Kumar** on behalf of the Mathematics Department, expressing gratitude to the speaker for his valuable insights and inspiration.

Key Points:

- **Event:** Lecture on "Past, Present, and Future of Mathematics."
- **Organized by:** Department of Mathematics, DAV University, Jalandhar.
- **Date:** April 3, 2019.
- **Chief Guest & Speaker:** Prof. (Dr.) T.D. Narang (Former HoD, Mathematics, GNDU, Amritsar).
- **Dignitaries Present:** Prof. (Dr.) Rakesh Kumar Mahajan (Vice Chancellor, DAV University), Dr. Sarika Verma (HoD, Mathematics), and faculty members.
- **Key Takeaways from the Lecture:**
 - Mathematics is *"the king of all arts, queen of all sciences, mother of technologies, and heart of engineering."*
 - Applications in diverse fields: Physical Sciences, Biological Sciences, Engineering, Industries, and Robotics.
 - Declining student interest due to the non-availability of quality teachers at the school level.
 - Contributions of great mathematicians like Gauss, Fermat, Ramanujan, Euclid, Abel, and Pythagoras.
 - Emphasis on **devotion, dedication, and hard work** in learning new mathematical concepts.
- **Vote of Thanks:** Presented by Dr. Raj Kumar on behalf of the Mathematics Department.

Guest Lecture by Dr. Martha, IIT Roorkee on 'Differential Equations and Its Applications in Engineering'-2019



Department of Mathematics, DAV University Jalandhar Hosts Insightful Lecture on Differential Equations and Their Applications in Engineering

The Department of Mathematics, DAV University, Jalandhar, successfully organized an enlightening lecture on '*Differential Equations and Their Applications in Engineering*' on November 23, 2019. The distinguished speaker for the event was **Dr. S. C. Martha, Associate Professor, IIT Ropar**. The session was graced by the presence of **Dr. Sarika Verma, Head of the Department**, along with other faculty members and students. Dr. Martha was warmly welcomed with a memento as a token of appreciation for his valuable contribution.

Key Highlights of the Lecture

Dr. S. C. Martha commenced his talk by emphasizing the **importance of Mathematics in daily life** and the **significance of setting academic and professional goals**. He urged students to establish a clear aim and diligently work towards achieving it.

He further illustrated various **real-life problems that necessitate Mathematical modeling**, thereby demonstrating the pivotal role of Mathematics in problem-solving across different domains.

One of the significant aspects of the lecture was the explanation of the **graphical method for finding the roots of a transcendental equation**, which provided students with a fundamental yet powerful approach to solving such equations.

Additionally, Dr. Martha delved into an advanced topic: a **special case of the mixed boundary value problem**, specifically addressing the **scattering of water waves by obstacles in fluid dynamics at finite depth**. This discussion offered students valuable insights into the practical applications of differential equations in physics and engineering.

A major highlight of the session was Dr. Martha's demonstration of **Linear Algebra techniques** to obtain solutions for differential equations. This provided students with a deeper understanding of how algebraic methods can be effectively utilized in solving complex mathematical problems.

In his concluding remarks, Dr. Martha strongly encouraged students to explore **research opportunities in Science and Mathematics**, inspiring them to contribute to the field with innovative solutions.

The event concluded with a heartfelt *vote of thanks* delivered by **Dr. Raj Kumar**, who expressed gratitude on behalf of the Department of Mathematics for Dr. Martha's invaluable insights and time.

The session proved to be highly engaging and informative, leaving students with a greater appreciation for Mathematics and its real-world applications.

Webinar on 'Groups of Small Order'



**DAV UNIVERSITY
JALANDHAR**

DEPARTMENT OF MATHEMATICS

Organizes
a Webinar on

Groups of Small Order



Speaker

Dr. Shalini Gupta

Associate Professor and Head
Department of Mathematics
Punjabi University, Patiala

Live through Zoom Meeting

Date- 16th April 2021

Time- 11:00 am

Contact Person: Dr. Shelly Garg, Assistant Professor (Mob: 9815785974)

URL

<https://zoom.us/j/92336437789>

Participants (198)

Q Find a participant

- vinod kumar (Me)
- Registrar DAV University Jalandhar (Host)
- Dr Shalini Gupta (Co-host)
- shelly garg (Co-host)
- Anjali 11801122
- (11801144)Laxmi Kumari
- 11900607(Simran Kaur)
- 11900830 Anmol
- 12000881(Simranjeet kaur)
- 2232 Pooja sandhu
- Alka Arora
- Amisha mahajan(12000828)
- Amisha Thakur(11901084)
- Anamika 11901379
- Anchal SHarma

Invite Unmute Me

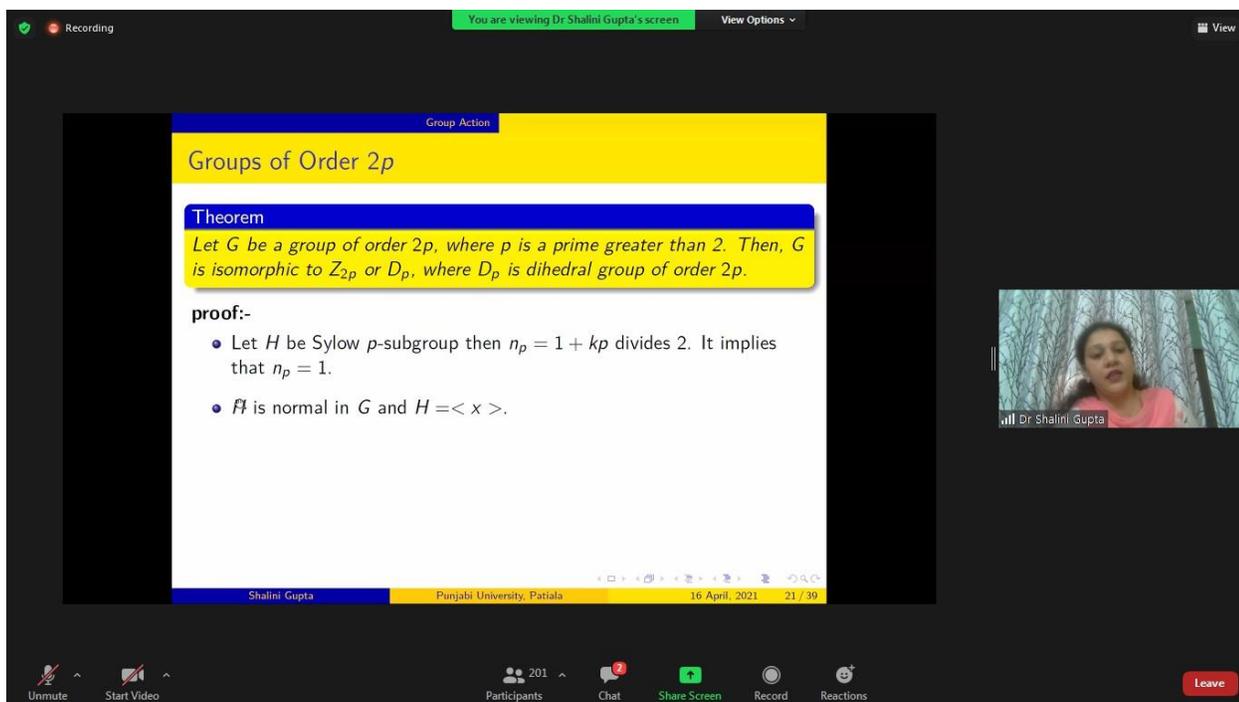
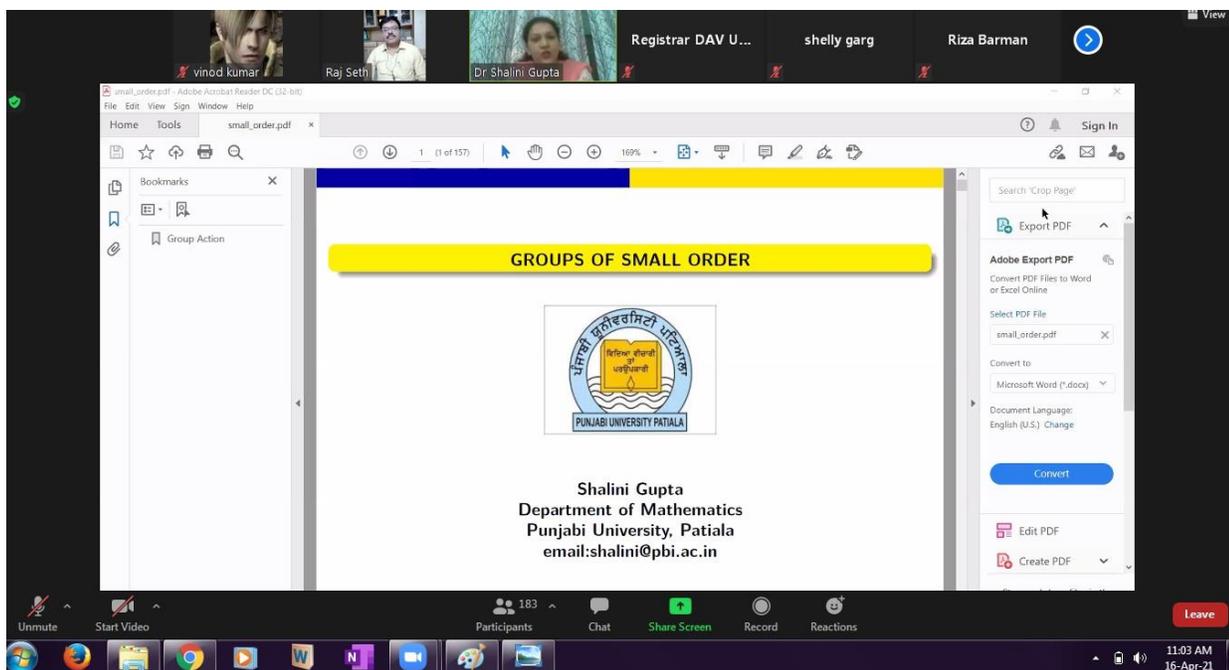
Zoom Meeting

vinod kumar Registrar DAV U... Raj Sethi shelly garg Riza Barman Md Sohail

Dr Shalini Gupta

Unmute Start Video Participants 175 Chat Share Screen Record Reactions Leave

11:02 AM 16-Apr-21



Webinar on “Groups of Small Order” Successfully Organized by DAV University, Jalandhar

The Department of Mathematics at DAV University, Jalandhar, hosted an insightful webinar on “Groups of Small Order.” The event commenced with a warm welcome address by **Dr. R.K. Seth, Dean Academics**, who

extended a heartfelt welcome to the distinguished resource person, **Dr. Shalini Gupta, Head and Associate Professor, Department of Mathematics, Punjabi University, Patiala.**

Dr. Shalini Gupta captivated the audience with an engaging session on groups of order up to 15. She expertly elucidated the methodologies for determining the number of **non-isomorphic abelian and non-abelian groups** of specific orders, providing attendees with valuable mathematical insights and practical problem-solving tools.

The webinar witnessed an overwhelming response, with over **200 enthusiastic participants** keen to deepen their understanding of group theory. As the event concluded, **Dr. Shelly Garg, Assistant Professor, Department of Mathematics**, expressed profound gratitude to Dr. Shalini Gupta for sharing her vast knowledge and enriching the learning experience of students and scholars alike.

Recognizing the success of the webinar, **Vice-Chancellor Dr. Jasbir Rishi** and **Registrar Dr. K.N. Kaul** commended the organizing team for their dedication and efforts in fostering academic excellence and intellectual growth.

Key Discussion Points from the Webinar

1. Introduction to Groups of Small Order

- Dr. Shalini Gupta provided an insightful overview of groups of order up to 15, laying the foundation for an in-depth exploration of the topic.

2. Classification of Groups

- The session delved into the classification of groups based on their order and structural properties, helping participants grasp fundamental distinctions.

3. Abelian vs. Non-Abelian Groups

- The differences between **abelian** and **non-abelian** groups were highlighted with real-world examples and applications, reinforcing theoretical concepts.

4. Non-Isomorphic Groups

- A detailed discussion on **non-isomorphic groups** was conducted, including systematic methods for determining the number of **non-isomorphic abelian and non-abelian groups** of a given order.

5. Mathematical Tools and Techniques

- Participants were introduced to various mathematical approaches and tools essential for identifying and analyzing groups of small orders.

6. Examples and Problem Solving

- Practical problem-solving exercises were incorporated to demonstrate the application of discussed concepts, ensuring an interactive and engaging session.

7. Q&A Session

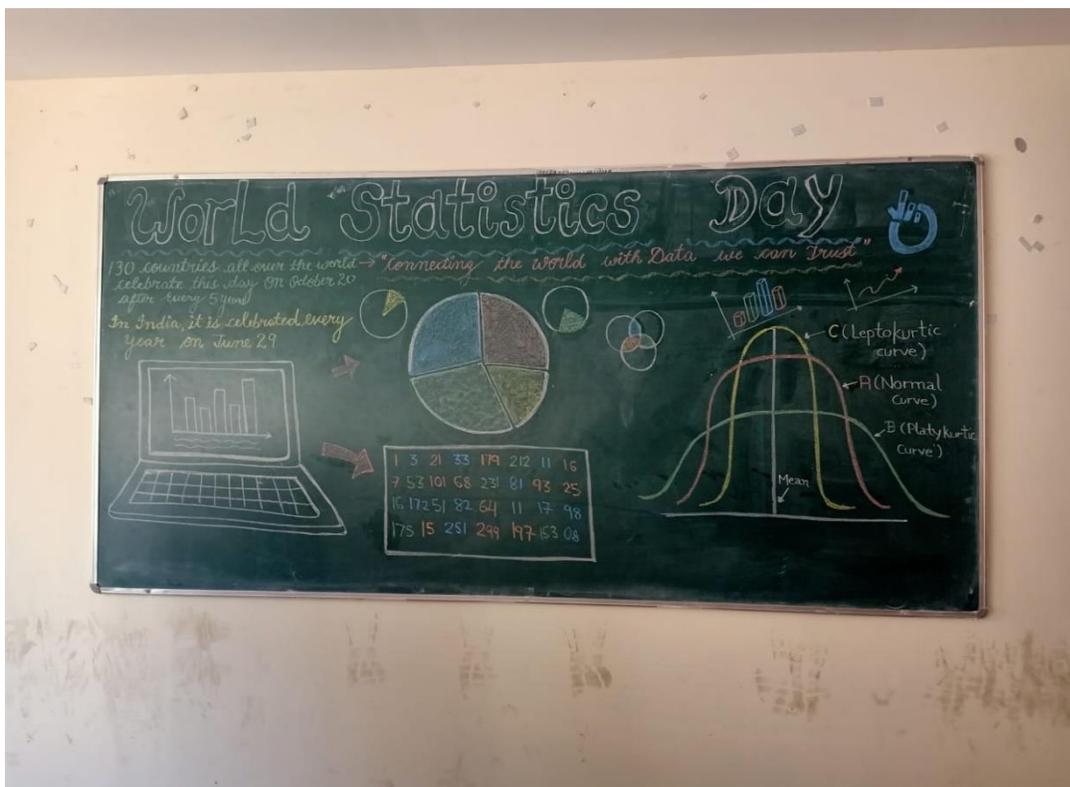
- The interactive segment provided participants with an opportunity to seek clarity on complex topics, fostering deeper engagement with group theory.

8. Conclusion and Key Takeaways

- The session concluded with a comprehensive summary of key learnings and an encouragement for participants to further explore **advanced topics in group theory**.

The webinar proved to be an intellectually enriching experience, equipping attendees with valuable mathematical knowledge and techniques. The Department of Mathematics at DAV University remains committed to organizing such events, fostering academic curiosity, and promoting excellence in mathematical research.

Celebration of World Statistics Day (Oct 22, 2021)





Lecture on “Sampling and Its Inference” at DAV University, Jalandhar

The Department of Mathematics at DAV University, Jalandhar, organized an insightful lecture on “Sampling and Its Inference” to celebrate World Statistics Day. The event commenced with a warm welcome by Dr. Raj Kumar, Head of the Department, who expressed his gratitude to the faculty members and students for their enthusiastic participation.

The lecture was delivered by Dr. Vinod Kumar, who delved into the various facets of statistics, focusing particularly on sampling techniques and their inferences. He elaborated on hypothesis testing methods and highlighted the critical role of statistical tools in analyzing diverse datasets. His presentation was both engaging and informative, offering practical insights into the application of statistical methods in research and data analysis.

The session witnessed an impressive turnout, with over 85 participants attending. Concluding the event, Dr. Shelly Garg, Assistant Professor in the Department of Mathematics, extended her heartfelt thanks to Dr. Vinod Kumar for sharing his expertise and enriching the audience’s understanding of statistical methodologies.

The Vice-Chancellor, Dr. Jasbir Rishi, and Registrar, Dr. K N Kaul, congratulated the organizing team for the successful execution of the lecture and emphasized the importance of such academic initiatives in enhancing students' learning experiences.

Key Points of Discussion:

1. **Introduction to Statistics:** Overview of statistics and its significance in research and data analysis.
2. **Sampling Techniques:** Detailed discussion on probability and non-probability sampling methods.
3. **Inference in Statistics:** Understanding how to draw conclusions from sample data.
4. **Hypothesis Testing:** Explanation of various tools and techniques for hypothesis testing.
5. **Application of Statistics:** Real-world examples of statistical analysis in different fields.
6. **Data Analysis Tools:** Introduction to statistical software and tools used for data interpretation.
7. **Interactive Session:** Addressing queries from participants and discussing practical challenges in statistical analysis.

Celebration of National Mathematics Day (Jan 30, 2023)



DAV UNIVERSITY

JALANDHAR

National Mathematics Day

30th January, 2023



Remembering
The Great Indian Mathematician
"Srinivasa Ramanujan"

Catalyzed and Supported by :

**NCSTC, DST, GOI & Punjab State
Council for Science & Technology**

Event Details:

- 1. Poster Presentation**
 - Individual participation.
 - Topic : "Application of Mathematics".
- 2. Mathematics Quiz Competition**
 - A team of 3 participants.
 - Syllabus up-to Graduation level.
 - Participants from Graduation as well as Post Graduation.
- 3. Mathematical Rangoli**
 - A team of 3 participants.
(bring your own material)
 - Time limit 2 hr.
 - Any Mathematical theme.
- 4. Mathematical Tambola**
 - Individual participation.
(Rs. 20/- per ticket)

Important Note :

- More than one team from an institute can participate in any event.
- Judges' decision shall be final.
- Participants must reach/leave the venue by their own means.
- Team must reach sharp by 9.30 am and should bring their authority letters and ID cards with them.

No Registration Fee

**Kindly ensure timely registration
to help us serve in a better way.**

For Registration scan
the code or
Click the link below
[https://forms.gle/
DsKXNXURba4FMKTA8](https://forms.gle/DsKXNXURba4FMKTA8)



**Last Date for
registration**

**January
27th, 2023**

Organizing Committee

Patron Prof (Dr.) Manoj Kumar Vice-Chancellor Coordinator Prof (Dr.) R.K. Seth Dean (Sci. & Engg.)	Convener Dr. Raj Kumar Head, Department of Mathematics Dr. Shelly Garg Assistant Professor, Department of Mathematics
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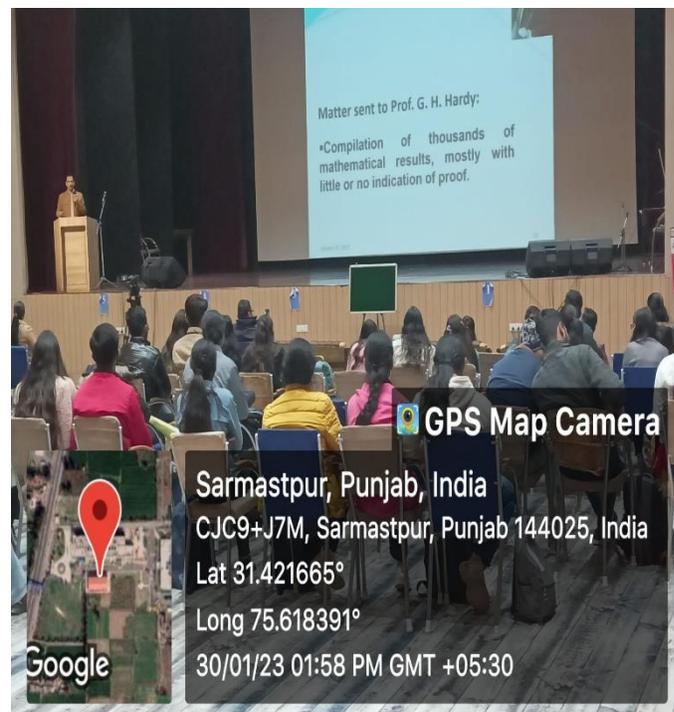
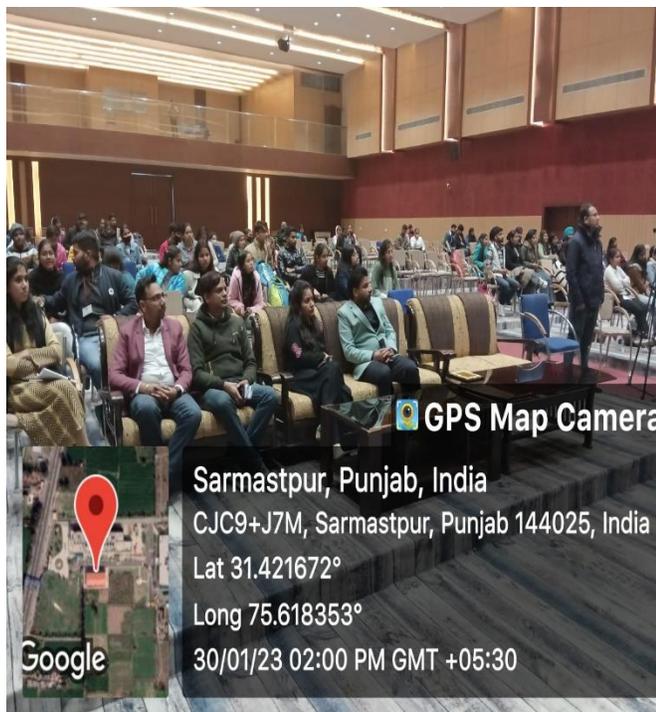
Organizing Secretary

Dr. Vinod Kumar Dr. Rajesh Joshi	Ms. Anita Devgan	Mr. Arun Kochar Mr. Anmol Bajaj
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Contact Details :

Teacher Coordinator Dr. Raj Kumar M : 9888573260 Dr. Shelly Garg M : 9815785974	Student Coordinator Tania M : 8544747132 Anamika M : 9718840359
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DAV University, Jalandhar, celebrated National Mathematics Day on January 30, 2023, in honor of the legendary Indian mathematician Srinivasa Ramanujan, acknowledging his remarkable contributions to the field of mathematics. The event was supported by the National Council for Science & Technology Communication (NCSTC), Department of Science and Technology (DST), Government of India, and the Punjab State Council for Science and Technology (PSCST).

The event was graced by **Prof. Dr. Manoj Kumar**, Vice-Chancellor of DAV University, as the Chief Patron, with **Prof. Dr. R.K. Seth**, Dean (Science & Engineering), serving as the event coordinator. The program commenced with a warm welcome address by **Dr. Shelly Garg**, Assistant Professor in the Department of Mathematics.

In his speech, **Prof. Dr. Manoj Kumar** congratulated the Department of Mathematics for organizing the celebration and shed light on Ramanujan's extraordinary mathematical contributions. He expressed gratitude to **NCSTC**, **DST (GOD)**, and **PSCST** for their financial support and emphasized the importance of such events in promoting mathematics within science and engineering disciplines.

The celebration featured an insightful expert lecture by **Dr. Aashish Arora**, Associate Professor at **IKGPTU**, Kapurthala, on "*The Work and Life of Srinivasa Ramanujan.*"

A series of engaging competitions, including **Poster Presentation**, **Mathematical Rangoli**, **Quiz**, and a fun mathematics-based event called **Mathematical Tambola**, were organized as part of the event. Over **150 students** from various colleges participated enthusiastically, showcasing their creativity and mathematical insights. Their posters and rangolis displayed excellent thoughts on topics such as **Mathematical Science**, **Facts of Pi**, **Number Systems**, and **Symmetry**.

Winners of the competitions were recognized with **trophies**, **certificates**, **bags**, and **diaries**. The day's activities were seamlessly coordinated by **Dr. Raj Kumar**, Head of the Department of Mathematics, along with **Dr. Shelly Garg**.

The event concluded with a **prize distribution ceremony** and a heartfelt **vote of thanks** delivered by **Dr. Raj Kumar**.

Celebrating the Legacy of Shakuntala Devi at DAV University, Jalandhar-2023

The Department of Mathematics, DAV University, Jalandhar, proudly celebrated the birth anniversary of **Smt. Shakuntala Devi** on **November 29, 2023**. Known as the "**Human Computer**," Shakuntala Devi was an Indian mathematical prodigy, mental calculator, and writer whose unparalleled skills earned her a place in the **1982 edition of The Guinness Book of World Records**. Throughout her life, she dedicated herself to making numerical calculations simpler for students and authored numerous books covering mathematics, puzzles, astrology, and even fiction.

Competitions & Celebrations

To honor her extraordinary contributions, the department organized a series of engaging and intellectually stimulating competitions:

- ☑ **Poster Presentation** – Students showcased creative mathematical ideas through vibrant posters.
- ☑ **Mathematical Rangoli** – A fusion of art and mathematics where rangolis were designed with themes like *Necklace of Geometry, Mathematical Science, Number System, and Symmetry*.
- ☑ **Mathematical Tambola** – A fun-filled numerical game that added an element of excitement to the event.

Students from various departments enthusiastically participated, expressing their innovative thoughts and deep appreciation for mathematics. The winners of these competitions were recognized with **trophies and certificates** for their outstanding efforts.

The celebration witnessed active participation from both students and faculty members, making it a memorable tribute to Shakuntala Devi's remarkable legacy. The event not only honored her genius but also inspired young minds to embrace the beauty of mathematics with enthusiasm and creativity.

Key Highlights of the Event

- 📅 **Date:** November 29, 2023
- 📅 **Occasion:** Birth anniversary of Smt. Shakuntala Devi
- 📅 **Organized by:** Department of Mathematics, DAV University, Jalandhar
- 📅 **Competitions:**
 - Poster Presentation
 - Mathematical Rangoli
 - Mathematical Tambola
- 📅 **Themes:** Necklace of Geometry, Mathematical Science, Number System, Symmetry
- 📅 **Awards:** Trophies & Certificates for winners
- 📅 **Participants:** Students and faculty members from various departments

The event was a grand success, leaving students inspired and motivated to explore the world of mathematics with greater passion and curiosity.





 **GPS Map Camera**



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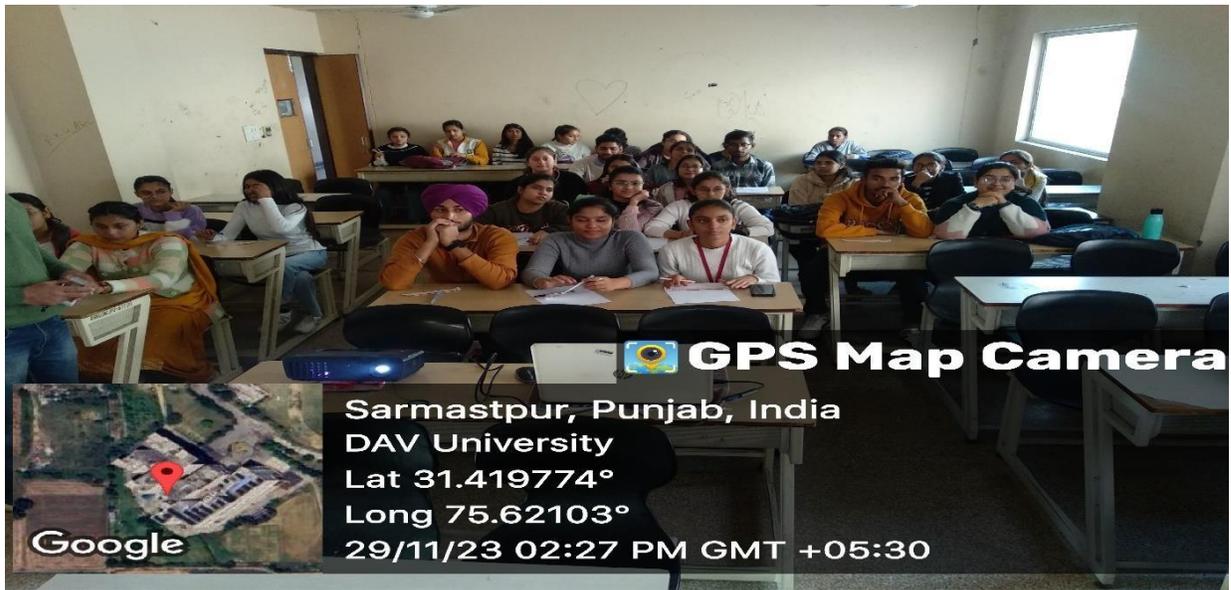


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National Mathematics Day (March 04, 2025)



DAV UNIVERSITY

Empowering Students with 21st Century Skills

JALANDHAR

National Mathematics Day

A Day for Maths Lovers

March 4, 2025

Catalyzed and Supported by
Punjab State Council for Science & Technology, NCSTC and DST (GoI)



Remembering The Great Indian Mathematician
“Srinivasa Ramanujan”

Events

1. Poster Presentation
2. Mathematics Quiz Competition
3. Mathematical Rangoli
4. Mathematical Origami
5. Model Exhibition
6. Mathematical Fun Games like Tambola

Important Note :

- More than one team from an institute can participate in any event
- Judges' decision shall be final
- Participants must reach/leave the venue by their own means
- Team must reach sharp by 9.00 am and should bring their authority letters and ID cards with them

Organizing Committee

<p><i>Patron</i> Prof. (Dr.) Manoj Kumar Vice-Chancellor</p> <p>Prof. (Dr.) S.K. Arora Registrar</p> <p>Prof. (Dr.) K.N. Kaul Dean Sciences & Engineering</p>	<p><i>Convener</i> Dr. Shelly Garg Head, Department of Mathematics</p> <p>Dr. Raj Kumar Assistant Professor Department of Mathematics</p>
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Guest Speaker



Dr. Ravi Kant Mishra
Professor & Dean
(Alumni And Industrial Relations)
SLIET, Longowal

No Registration Fee

Kindly ensure timely registration to help us serve in a better way

for registration scan the code or click the link below
<https://forms.gle/bS3awvcDixS2t8TaA>



Last date for registration
February 27, 2025

Organizing Secretary

• Dr. Rajesh Joshi • Dr. Vinod Kumar • Mr. Arun Kochhar • Dr. Bhard
• Dr. Nith Bhatt • Ms. Muskan • Ms. Khushi

DAV UNIVERSITY

Empowering Students with 21st Century Skills

JALANDHAR

Event Guidelines and Academic Scope

Poster Presentation

- Individual or Team of 2 participants
- Topic: "Applications of Mathematics"

Mathematics Quiz Competition

- A team of 3 participants
- Syllabus up-to Graduation level
- Participants from Graduation as well as Post Graduation

Mathematical Rangoli

- A team of maximum 3 participants (bring your own material)
- Time limit 2 hr
- Any Mathematical theme

Mathematical Origami

- A team of maximum 2 participants
- Topic: Geometrical shapes (e.g. polyhedra, fractals), Algebraic concepts, Symmetry and transformations

Model Exhibition

- Mathematics in Real life
- Maximum 2 students in a team

Programme Schedule



Contact Details:

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Student Coordinator

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The Department of Mathematics of DAV University, Jalandhar, organized a grand celebration of National Mathematics Day Catalyzed and Supported by Punjab State Council for Science & Technology, NCSTC and DST (GoI) on March 4, 2025 with a series of engaging and intellectually stimulating events. The program commenced with the melodious rendition of the DAV Gaan, setting a solemn and inspirational tone for the event.

The occasion was graced by Prof. & Dean (Dr.) Ravi Kant Mishra (Alumni and Industrial Relations) from SLIET, Longowal, who attended as the Chief Guest. His presence and insightful

words motivated students and faculty members, emphasizing the significance of Vedic Mathematics in everyday life and advanced research.

The event featured a variety of competitions and activities, including:

- Mathematical Quiz – Testing students' problem-solving skills and numerical aptitude.
- Mathematical Rangoli – Showcasing creativity through mathematical patterns.
- Poster Presentation – Providing a platform for students to express mathematical concepts visually.
- Mathematical Models – Encouraging innovative thinking and practical applications of mathematics.
- Mathematical Origami- To explore the connection between mathematics and art, emphasizing geometrical structures and symmetry.
- Fun Game – Tambola – Adding an element of enjoyment to the celebration.

Vice Chancellor Dr. Manoj Kumar and Registrar Dr. S.K.Arora praised the program's success and expressed their contentment with the positive outcomes it achieved. Prof. (Dr.) K.N. Kaul (Dean Sciences & Engineering) of university addressed the gathering, sharing valuable knowledge and insights that enriched the participants' understanding of mathematics. Dr. Shelly Garg (HOD, Department of Mathematics) shared her thoughts on the event's significance.

The event successfully highlighted the beauty and importance of mathematics, inspiring students to explore and appreciate the subject beyond textbooks. The enthusiastic participation and well-organized activities made National Mathematics Day a memorable occasion at DAV University.







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