



Mata Sundri College for Women
University of Delhi



संस्कृतिक

Volume IV

Department of Statistics



Mata Sundri Ji

Mata Sundri Ji holds a special place in Sikhism for the role she played in leading Sikhs after the ascension of Guru Gobind Singh Ji.

She was an inspiring leader, a remarkable individual, an innovator, a devout Sikh, and a source of comfort for future generations. She was the wife of the 10th Sikh guru, Guru Gobind Singh Ji. She was born in 1667 to Bhai Ram Saran in Hoshiarpur, present-day Punjab. On April 4, 1684, she married Guru Gobind Singh Ji at Anandpur Sahib.

After the demise of Guru Gobind Singh Ji, she took the command of Khalsa Panth and showcased her brilliant leadership skills. She preached Sikh values among the millions and asked people to lead an honest and righteous life.

She also issued hukumnamas to sangats under her seal and authority. She secured that the tradition of 'langar' (free community kitchen) continued to flourish.

Gurudwara Mata Sundri Ji is the literal holy sanctum raised in memory of Mata Ji where she lived for about forty years. Mata Sundri Ji returned to live in Delhi where she died in 1747. Mata Sundri Gurdwara of Delhi commemorates the location of the home where Mata Sundri Kaur Ji lived with Mata Sahib Kaur Ji.

The renowned institution- Mata Sundri College for Women, founded in 1967, is a tribute to her tremendous contributions to mankind, peace, and verity. The institution is a melting pot of individuals from all cultures, regions, and religions, which adds to its beauty and diversity.

Their experience, knowledge, views, and opinions add to the charm and individualism of the institution. The institution is growing and flourishing with each passing day, which is possible only due to the blessings of Mata Sundri Ji. She's an alleviation for all those who are floundering for justice, equivalency, sovereignty, and liberty.

We bow our heads in respect of her majesty.

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FROM THE PRINCIPAL DESK

Esteemed Faculty, Students, and Readers,

I extend my heartfelt congratulations to the Department of Statistics on the release of the 4th edition of their e-magazine, "SANKHYIKI."

This remarkable endeavour provides a glimpse into a realm of imagination, talent, and esteemed faculty members.

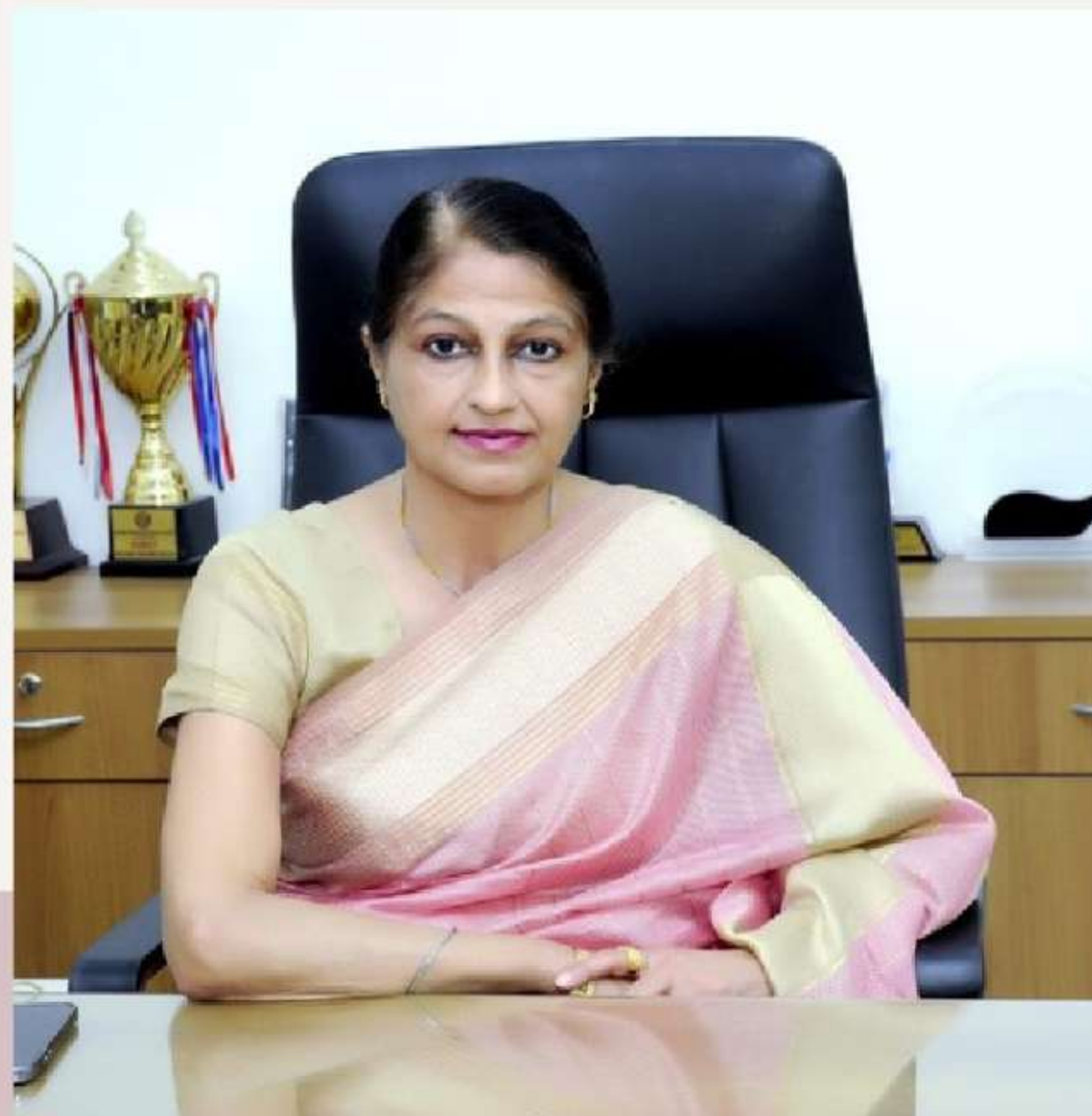
The chosen themes, genres, and subjects for this edition are not only diverse but also exceptionally captivating. I commend the editorial team for their unwavering dedication and hard work in bringing this vision to life.

A special acknowledgment goes to the faculty team for their steadfast guidance and for nurturing the talents of students. Their diligence has undoubtedly played a pivotal role in shaping the success of this innovative initiative.

As we celebrate the linguistic diversity showcased in "SANKHYIKI," I extend my sincere wishes to all statistics students for a future filled with success. May this edition of the magazine mark the commencement of a journey brimming with continuous exploration, learning, and achievements.

In conclusion, I eagerly anticipate witnessing the ongoing growth and success of "SANKHYIKI." May it evolve into a cherished tradition that amplifies the brilliance and potential within the Department of Statistics.

Prof. (Dr.) Harpreet Kaur
PRINCIPAL



PROF. (DR.)
HARPREET KAUR
PRINCIPAL

From Chief Editor's Desk

Dear Friends !

Welcome to the fourth volume of our Statistics Department's annual e-magazine! It is with great pleasure that we present this compilation of insightful articles, innovative research, and departmental highlights.

In this volume, an entire section is dedicated to the career prospects in the field of Statistics. It is particularly useful for students who wish to pursue their career in this area. The student section is a testament to the vibrant intellectual curiosity within our department. It features innovative research curiosities, reflections on internships and extracurricular experiences. We are proud of our students' accomplishments and their dedication to pushing the boundaries of statistical knowledge.

I would like to extend my gratitude to everyone who contributed to this edition. Your hard work, creativity, and passion are what make this e-magazine a success. Special thanks to our editorial team, whose meticulous efforts ensure that each volume is a polished and engaging read.

As you explore the articles, stories, and reports within these pages, I hope you find inspiration, knowledge, and a deeper appreciation for the field of statistics. We are excited about the future and look forward to continuing to share our journey with you.

Happy reading !!

Dr Archana Verma
Editor-in-Chief



From Editor's Desk

Dear readers,

Welcome to the latest edition of Sankhiyiki! We are super excited to bring you stories and journeys that shed light on the statistics world in completely new and imaginative ways.

In this edition, we've covered everything, from sophisticated techniques to real-life examples that will make you look at data in a whole new way. Each article is filled with new insights and perspectives that will challenge your imagination and expand your understanding of the incredible power of data.

But Sankhiyiki isn't just a regular magazine – it's data-loving people like you, all trying to crack the mysteries of the world through statistics. As you navigate these pages, we encourage you to join the conversation, share your thoughts, and connect with colleagues who share your passion for the world of data.

So, whether you're an experienced data explorer or just starting to dip your toes into the world of data analytics, we hope this Statistic will ignite and spark your curiosity you get deeper into the endless possibilities offered by data.

Thank you for being a part of our journey!

A warm welcome,
Amanjot Kaur



OUR FACULTY



Dr. Archana Verma
Teacher In charge



Dr. Meenu Goel



Dr. Komal Goel



Dr. Komaldeep Kaur



Dr. Mandeep Kaur

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FIRST YEAR



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SECOND YEAR



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THIRD YEAR



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Viksit Bharat

"Embarking on a transformative journey, India unveils a visionary plan to ascend to developed status by 2047, weaving dreams into reality on the centenary of its independence."



Goals set under the Viksit Bharat Mission

One of the main aims is to turn India to a \$30-trillion developed economy in about two decades for a projected 1.65 billion population.

The mission envisions economic growth, sustainable development goals, improvements in the ease of living and doing business, enhanced infrastructure, and bolstered social welfare initiatives.

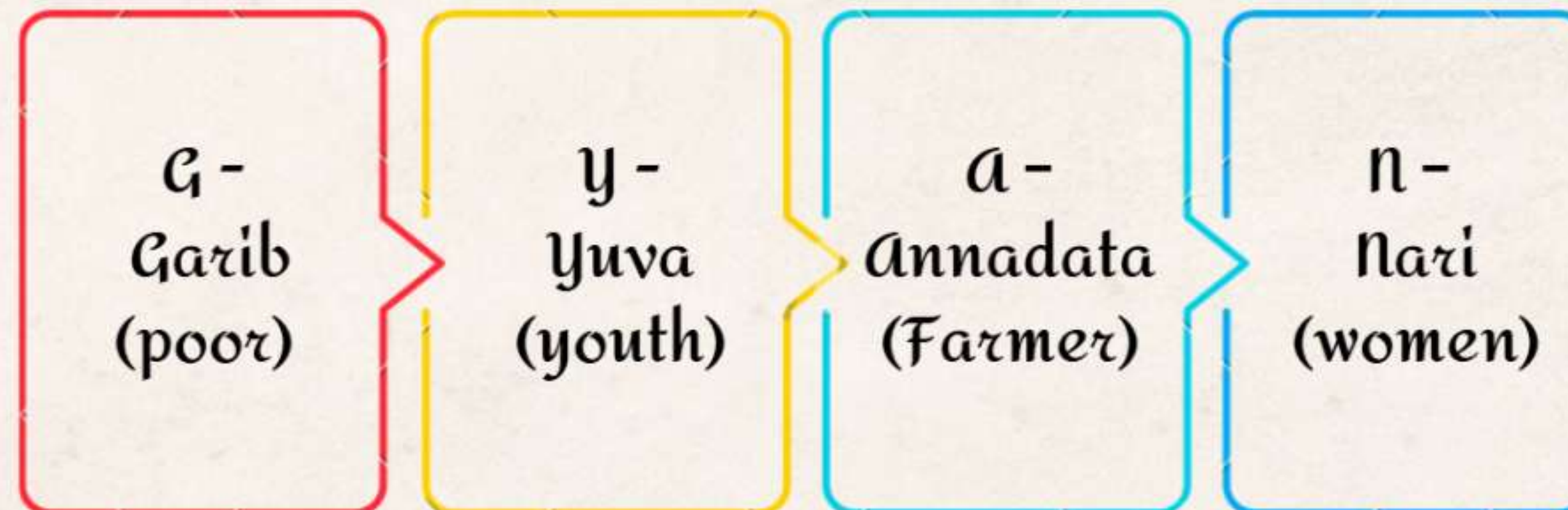
It also takes into account four major factors likely to take centre stage by 2050:

India and Africa's increasing prominence on the global stage, reflecting PM

Modi's emphasis on the Global South at G20; a world marked by growing affluence but also polarization; escalating climate crises; and a rapidly changing geopolitical landscape.

Other factors that have been taken into account include The emergence of a 'phygital' future, where rapidly advancing digital technology reshapes the physical world; groundbreaking innovations reshaping lifestyles; global competition for shared resources like space, oceans, and data; and the uncertainties posed by the unknown.

Pillars of viksīt bharat Roadmap to Gyan



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1. VIKSIT BHARAT SANKALP YATRA

The Viksit Bharat Sankalp Yatra was launched by the Hon'ble Prime Minister on November 15 from Khunti, Jharkhand.

This is a Nationwide campaign is to raise awareness through outreach activities to achieve saturation of schemes of Govt. of India across the country covering all Gram Panchayats, Nagar Panchayats and Urban Local Bodies.

The initiative aims to:

- Reach the unreached:

Reach out to the vulnerable who are eligible under various schemes but have not availed benefit so far.

- Information Dissemination:

Dissemination of information and generating awareness about schemes

- Learning from the Citizens:

Interaction with beneficiaries of government schemes through their personal stories/ experience sharing

- Potential Beneficiary Enrolment:

Enrolment of potential beneficiaries through details ascertained during the Yatra

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2. AMRIT KAAL VIMARSH

"Amrit Kaal Vimarsh: Viksit Bharat @ 2047" translates to "Discussion during the Golden Period: A Developed India by 2047" and refers to an initiative by the Indian government.

The initiative aims to:

- Spark discussions: Encourage dialogue across various educational institutions and communities on the necessary transformations to achieve a developed India by 2047.
- Identify key areas: Through these discussions, address crucial aspects like:
 - Developmental achievements: Analyse the progress made so far during the "Amrit Kaal" period.
 - Challenges and solutions: Identify roadblocks hindering development and propose solutions for inclusive and equitable growth across various sectors.
- Policy and scheme evaluation: Assess the effectiveness of current government schemes and public policies in the context of achieving the vision of "Viksit Bharat".

3. Voice of Youth

On 11th December 2023, Hon'ble Prime Minister Sh. Narendra Modi has made an appeal to every youth of this country to be part of Viksit Baharat campaign.

Prime Minister's vision is to actively involve the youth of the country in formulation of national plans, priorities and goals of the country.

In line with this vision, 'Viksit Bharat @2047: Voice of Youth' initiative will provide a platform to the youth of the country to contribute ideas to the vision of Viksit Bharat @2047.

Key Objectives

- Orientation of Youth with the Viksit Bharat Agenda
Aligning perspectives and actions of the youth with the national development goals by educating them on national priorities and encourage dialogue on goals that can contribute to the larger vision.

- Gather Ideas from Youth for a Developed India
Engaging with the youth in the ideation process by soliciting their ideas and perspectives to harness their creativity and innovation for national development projects.

- Identify the Youth's focused Sectors
Identifying which sectors (technology, education, healthcare, environment sustainability etc.) the youth are most interested in to channelize the policies in their most preferred areas.

- Seek Commitment from Youth towards Nation Building

Seeking the commitment and participation from youth in national development efforts by participating in programs, and pave pathways for the society to the nation's progress.

4. Other initiatives include:

- Running special campaigns in every university and college

The PM suggested running special campaigns in every university and college in India to connect more youth with this campaign. Subsequently, the government launched the 'Ideas Portal' related to Viksit Bharat to provide suggestions on five different themes namely; Empowered Indians, Thriving and Sustainable Economy, Innovation, Science and Technology, Good Governance and Security, and India in the World

- Helping MSMEs grow

The finance minister, in her Interim Budget 2024. speech, stated that many development and growth-enabling reforms are needed in the states to realise Viksit Bharat's vision. Thus, a provision of Rs.75,000 crore as a 50-year interest-free loan is proposed to the state governments to support their milestone-linked reforms. Helping MSMEs grow and compete will also be a part of the Viksit Bharat roadmap.



How Should Viksit Bharat Look in 2047 in Different Aspects?

Viksit Bharat 2047 is the vision to transform India into a developed nation by 2047. This vision encompasses various facets of development, such as economic growth, environmental sustainability, social progress and good governance, to make India a developed nation by 2047.

Below is what the different aspects of Viksit Bharat should look like in 2047:

- **Economic Growth:** A Viksit Bharat should have a resilient and strong economy that can provide opportunities and a high standard of living for all its citizens. The economy should be able to cope with the challenges of the 21st century based on entrepreneurship, innovation, and competitiveness.
- **Environmental Sustainability:** A Viksit Bharat should have a clean and green environment to preserve India's biodiversity and natural resources. The environment should be able to mitigate the impacts of climate change based on restoration, conservation and resilience.
- **Social Progress:** A Viksit Bharat should have an inclusive and harmonious society that ensures the dignity and well-being of all its citizens. Society should be able to celebrate and respect India's cultural heritage based on justice, equality and diversity.
- **Good Governance:** A Viksit Bharat should have an agile governance with sound policies and accountability. A good governance system is where there is provision to collect credible data, analyse areas for correction and act swiftly to improve the country based on teamwork, reflection, empathy and consultation.

Journey Ahead - Viksit Bharat@2047

As India stands at this crucial juncture, poised to take off on its growth trajectory, it is important to realize that tremendous dedication and belief in India's destiny, coupled with steadfast leadership, is necessary to realize this potential. There is enormous work that needs to be undertaken in a mission mode to make India a Viksit Bharat by 2047. For this to happen, there is a need to chalk out a bold, ambitious, and transformative agenda.

We must create the future. It is important to channel the innovative ideas of youth into nation-building by inviting them to ideas and contributing to the vision of Viksit Bharat by 2047.



G20 UNIVERSITY CONNECT FINALE



Prime Minister Narendra Modi delivered a keynote address at the G20 University Connect Finale, emphasizing the pivotal role of India's youth in driving the nation's progress and shaping its future. He lauded the youth for their energy and enthusiasm, attributing India's recent successes to their participation and engagement.

The Prime Minister highlighted several significant achievements, including the successful Chandrayaan mission and India's diplomatic endeavors, such as the BRICS Summit and engagements with world leaders. He underscored India's increasing stature on the global stage, with the inclusion of new members in various international forums and significant investments from countries like Saudi Arabia.

Modi outlined various initiatives aimed at empowering marginalized communities and creating opportunities for the youth, such as PM Vishwakarma Yojna and Rozgar Melas, which have provided employment opportunities to thousands. He stressed the importance of clean, transparent governance for sustained development and emphasized the government's commitment to curbing corruption and rewarding honesty.





The Prime Minister urged the youth to actively participate in national initiatives, including cleanliness campaigns and promoting digital transactions. He encouraged them to support local products and industries, emphasizing the significance of 'Vocal for Local'. Additionally, he called upon the youth to make Khadi a fashion statement and promote the work of artisans and craftsmen.



Modi painted a vision for India's future, highlighting the next 25 years as crucial for the nation's development. He expressed confidence in India's potential to become a leading global economy by 2047 and called on the youth to join him in realizing this vision.

In conclusion, the Prime Minister invited the youth to walk alongside him in the journey towards prosperity, echoing the spirit of the freedom struggle and urging them to strive for a prosperous and self-reliant India.

Event Section





Teacher's Day Celebration

Students of STATISTIKA, the Department of Statistics, celebrated Teachers' Day on September 5, 2023, by organizing a small surprise for all the lovely teachers of the department. The celebration started at 10:30 AM by welcoming the teachers and thanking them for all the efforts that they put in every day. To show their appreciation, the students surprised their teachers with a cake-cutting ceremony, followed by the presentation of roses and heartfelt cards. Around 11:30 AM, Reet Kaur, a second-year student, gave a vibrant performance, followed by a performance by 3rd year student Khushi. After the performance, students and the teachers had a fun dancing session.

The celebration culminated in a heartfelt vote of thanks for the teachers, bringing the event to a delightful close.





COUNSELLING WORKSHOP ON WOMEN & MENTAL HEALTH



Our college organized a counseling workshop on women, mental health, and emotions, dated 15 September 2023 at 1:00 pm in MATA GUJRI HALL. It was organized by the Department of ENGLISH (MERAKI) AND STATISTICS (STATISTIKA) in collaboration with IQAC MATA SUNDRI COLLEGE.

This event began with presenting a memento to the Director of IQAC, Dr Lokesh Kumar Gupta, and the speaker Dr. Harinder M. Sandhu (Department of Psychology). It began with an addressing speech by Dr. Lokesh Kumar Gupta on the importance and awareness of Mental Health followed by the main speaker: Dr. Harinder M. Sandhu.

She explored the state of women's mental health, highlighting its significance, factors contributing to mental health challenges, available resources, and recommended strategies for improvement. Women's mental health is a critical concern affecting individuals, families, and society at large.

The session then highlighted how women's mental health encompasses a broad spectrum of emotional and psychological well-being issues that can profoundly impact their lives.

The speaker then explained how mental health and well-being allow people to cope with the stresses of life, make them realize their abilities, learn well and work well, and contribute to the world.

Dr. Harinder M. Sandhu, talked about how emotions and mental health are the reactions that human beings experience in response to events or situations. At the end, researches have proven that male participants emotions fluctuate as much as women's did.

The session was then followed by a question and answer round in which the speaker addressed all the queries of students enthusiastically.

The workshop ended with a vote of thanks to all the departments, volunteers and the audience for an amazing hard work and behind the scenes work for the success of this event and for organizing the event .

It was quite an informative, interactive and wonderful workshop . We would like to have such events regarding mental health awareness more often in our college.



DAAN UTSAV Donation Drive



A donation drive was organized from 2nd October – 10th October. by the Department of Statistics in collaboration with, 'Kind Beings-an NGO' and 'AAROGYAM' (a cell for well-being and mental health), an initiative by IQAC.

Daan Utsav, celebrated as the 'Festival of Giving' was launched in 2009 and was previously known as 'Joy of Giving Week'. It is celebrated annually in the first week of October.

The primary objective of organizing the Daan Utsav Donation drive was to collect packed food items for those in need and to support their families.

The second objective aims at augmenting the cognizance concerning salient social issues to nurture an ethos of community service among the student body.

Specially designated cartons were placed across campus to facilitate the donation of items by students, faculty, and staff.

The course of the campaign garnered an exceptional response from the collegiate community and its broader environs.

The generosity exhibited by the contributors played a pivotal role in collecting a considerable quantity of packed food articles for the noble cause.

With the invaluable assistance rendered by volunteers and the college faculty members, the triumph of this charitable endeavor stands as a testament to the efficacy of collaboration.

The unwavering dedication and the commitment demonstrated by all participating entities enabled this drive to benefit numerous people in need, hence, making this drive a grand success.



WORKSHOP ON LIVER DISEASE AND YOU

A workshop on the topic of liver disease was organized on October 9, 2023, by Statistika (Department of Statistics) at Mata Sundri College for Women in collaboration with Aarogyam (the cell for mental health and well-being, an initiative by IQAC). The workshop had the primary aim of raising awareness about liver health and providing valuable insights into the prevention of liver diseases.

The distinguished speakers for the event were Dr. Yogesh Batra and Mrs. Sunita Roy Chowdhury, who shared their expertise and knowledge on liver diseases.

Dr. Yogesh Batra, a renowned hepatology expert, began the workshop by discussing the significance of liver diseases; he provided a comprehensive overview of various liver conditions, explaining their causes, symptoms, and potential risks. Dr Batra also shed light on common signs and symptoms indicative of liver diseases like fatigue, jaundice, and abdominal pain. He discussed several risk factors, including excessive alcohol consumption, obesity, diabetes, viral hepatitis infection, and exposure to certain medications that may lead to potential liver problems. He also stated several proactive steps to identify and mitigate the development of liver diseases.

Mrs. Sunita Roy Chowdhury, a respected nutritionist, followed Dr Batra's presentation and shifted focus to maintaining a healthy lifestyle to prevent liver diseases as well as upkeep of general well-being. Additionally, she highlighted the need for regular physical activity to maintain a healthy weight and, the significance of a balanced diet rich in fruits, vegetables, and whole grains to keep liver diseases at bay. Mrs. Roy Chowdhury provided practical tips and dietary recommendations for attendees to incorporate into their daily lives. The workshop facilitated participants to engage in meaningful discussions with the speakers and gain a better understanding of liver health. Attendees were also actively encouraged to ask questions and share their concerns, creating an interactive session.

Dr. Yogesh Batra and Mrs. Sunita Roy Chowdhury leveraged their knowledge of liver health and equipped attendees with valuable knowledge, due to this, the workshop proved to be a huge success with positive feedback across the board.

It is crucial to acknowledge that liver diseases are both preventable and manageable through awareness of healthy habits and timely medical intervention. With this knowledge, we can pave the way for a healthier future not just for ourselves but also for our communities.





HANDS-ON- WORKSHOP ON DATA VISUALISATION & PRESENTATION TOOLS



An Interdisciplinary hands-on workshop was organised on 13 October 2023, by, The Department of Statistics and the Department of Computer Science at Mata Sundri College for Women, focusing on the foundation for creating engaging infographics.

The event started at 1:30 PM with the felicitation of the guest Speaker, Mrs Sheetal Singh, an Assistant Professor from the Department of Computer Science at Ramanujan College, who guided the audience about the comprehensive exploration of data visualisation and presentation techniques.

In attendance at the event was the director of IQAC, Lokesh sir, who gave an encouraging speech to the students about how data visualisation is much needed these days due to the fast-paced nature of the modern world and the necessity to present data comprehensibly.

During the workshop, students gained hands-on experience with powerful Data visualisation tools such as Piktochart and Canva. This enabled the attendees to learn the art of creating engaging and informative infographics which not only deliver information to the targeted audience but can also draw and hold the viewer's attention.

The workshop informed students about various aspects of designing and creating easy-to-communicate and easy-to-understand graphic or visual representations of a large amount of complex quantitative and qualitative data and information with the help of static, dynamic or interactive visual items.

The interactive session ignited the inquisitiveness of all participants. It culminated at 3:30 PM with a vote of thanks and a thunderous round of applause for Mrs Sheetal Singh, who reflected her profound knowledge on the topic.

The students' responses and excellent feedback only prove how much such sessions are needed and how the students learned several ways to effectively represent data as infographics in such a short amount of time. Considering the efficient application of Data visualisation skills the attendees demonstrated, it is safe to say that the event was a great success.



SEMINAR ON RESUME BUILDING

A seminar on the topic of resume building was organized on November 6, 2023, by Statistika, The Department of Statistics at Mata Sundri College for Women. The seminar had the primary aim to equip the participants with the essential knowledge and skills required to construct an effective resume while addressing some common mistakes made during the resume writing process.

The distinguished speaker for the day was Mr. Akash Gogri, a leading resume expert at IIDE, Mumbai, who shared his expertise in crafting a compelling resume that enables it to outshine the rest.

Mr. Akash Gogri began the seminar by emphasizing the importance of a well-written resume in today's competitive job market. He also explained that a resume is the first impression a potential employer has of an applicant, which makes it essential to stand out from the crowd.

He guided the participants on the appropriate structure and format to ensure a visually appealing and easy-to-follow resume. Furthermore, he shed light on the significance of customizing the resume to suit the specific job requirements and provided insights on aligning the content with the desired role.

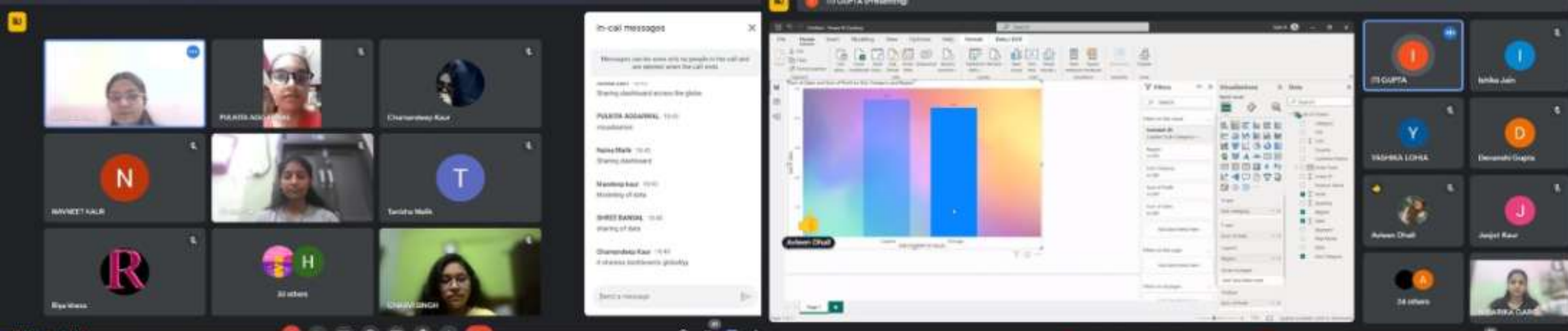
Additionally, Mr. Gogri addressed some stereotypical mistakes that individuals make, including the use of generic templates, lack of quantifiable achievements, and reliance on overused phrases.

The seminar encouraged participants to engage in meaningful discussions with the speaker and ask questions, creating a lively and interactive session environment.

Mr. Akash Gogri leveraged his expertise and provided the attendees with crucial knowledge and simple strategies for creating impactful resumes, due to which, the seminar proved to be a resounding success with positive feedback across the board.

As the session culminated, it was clear that the attendees felt confident in their ability to create an outstanding resume for themselves and aware of the minuscule elements that go into creating a detailed resume which appeals to the potential employer and makes your strong points shine.





A 7-day interdisciplinary workshop on Power BI was organized on weekends between September 17th and October 8th. to acquaint students with the widely used Microsoft software Power BI, by Statistika - The Department of Statistics, Mata Sundri College for Women, in collaboration with IQAC.

Niharika Garg and Iti Gupta, from the 3rd year of B.Sc. (Hons.) Statistics took the initiative to mentor the students. The event was held under the guidance of Principal Prof. Harpreet Kaur, Teacher In-charge Dr. Prabhsharn Kaur, Convener Dr. Meenu Goel, and Co-convener Dr. Komal Goel. The workshop received an enormous response, with around 110 students registering from various departments like Statistics, Computer Science, Mathematics, Psychology, BCom Hons, BA program, and so on. The workshop was well-appreciated by the students, inspiring them to explore these areas further and providing them with a platform to create new visualizations for different datasets.

DAY 1

(INTRODUCTION TO POWER BI AND HOW TO DOWNLOAD POWER BI)

The first day of the Power BI workshop provided a comprehensive introduction to the world of Power BI, with two expert mentors guiding participants through essential concepts and practical skills. The session began with a welcome speech by Charvi Singh. The first half, mentored by Niharika Garg, covered "What is Power BI?", "Components of Power BI," and "Benefits of Power BI." The second half, led by Iti Gupta, delved into "Increasing Demand of Power BI," "How Power BI Works," "How to Download Power BI," and an explanation of "How to Upload a Database in Power BI Desktop." Afterward, a doubt-clearing session addressed participants' questions. The day concluded with a quiz conducted by Niharika Garg to assess participants' understanding.

DAY 2

(Basic Charts)

The second day of the Power BI workshop delved deeper into the world of data visualization, equipping participants with hands-on skills. It comprised two sessions, each led by expert mentors. The first half, mentored by Iti Gupta, covered the creation of four essential charts: column chart, line chart, stacked column chart, and line with column chart. The second half, guided by Niharika Garg, explored more advanced chart types: ribbon chart, donut chart, pie chart, area chart, and funnel chart. The day included a doubt-clearing session and concluded with the sharing of a Google link for the quiz.

DAY 3

(Different charts, Table & Matrix)

The third day of the Power BI workshop delved into the techniques for creating informative data visualizations and analysis. Niharika Garg covered scatter plots, waterfall charts, treemaps, and gauge charts in the first half of the session. Iti Gupta explained table and matrix creation in the second half. The session concluded with a question-and-answer session to address any remaining queries, followed by the distribution of a Google Form quiz link for assessment.

DAY 4

(Maps)

On the 4th day of the Power BI workshop, mentors delved into valuable insights related to maps. Iti Gupta introduced us to the intricacies of bubble maps and bubble maps with pie charts. In the latter half, Niharika Garg took the lead, imparting her expertise on filled maps while providing insights on how to edit and format maps. The day concluded with a doubt-solving session to address any remaining queries.

DAY 5

[Cards and filters]

On the 5th day of the Power BI workshop, participants delved deeper into the In-depth functionalities of the tool. Iti Gupta mentored one half of the session, focusing on creating informative cards, including number cards, text cards, date cards, and multi-row cards. In the other half of the session, Niharika Garg guided participants through the world of filters, covering filters on visuals, filters on this page, and filters on all pages. Afterward, a doubt-clearing session was held. The day concluded with a Google Form quiz.

DAY-6

(Different type of slicers and creation of dashboard)

During the sixth day of the Power BI Basics workshop, Mentor Niharika conducted an in-depth session on slicer functionality. She covered slicers for the date, text, and number, along with their formatting. In the second half of the workshop, mentor Iti led a discussion on dashboards, emphasizing key components like Q&A, bubble maps, tables, and clustered column charts. Additionally, participants learned how to incorporate text, date, and number cards into their dashboards, making it a comprehensive learning experience. The day concluded with a doubt-clearing session and an assignment.

DAY 7

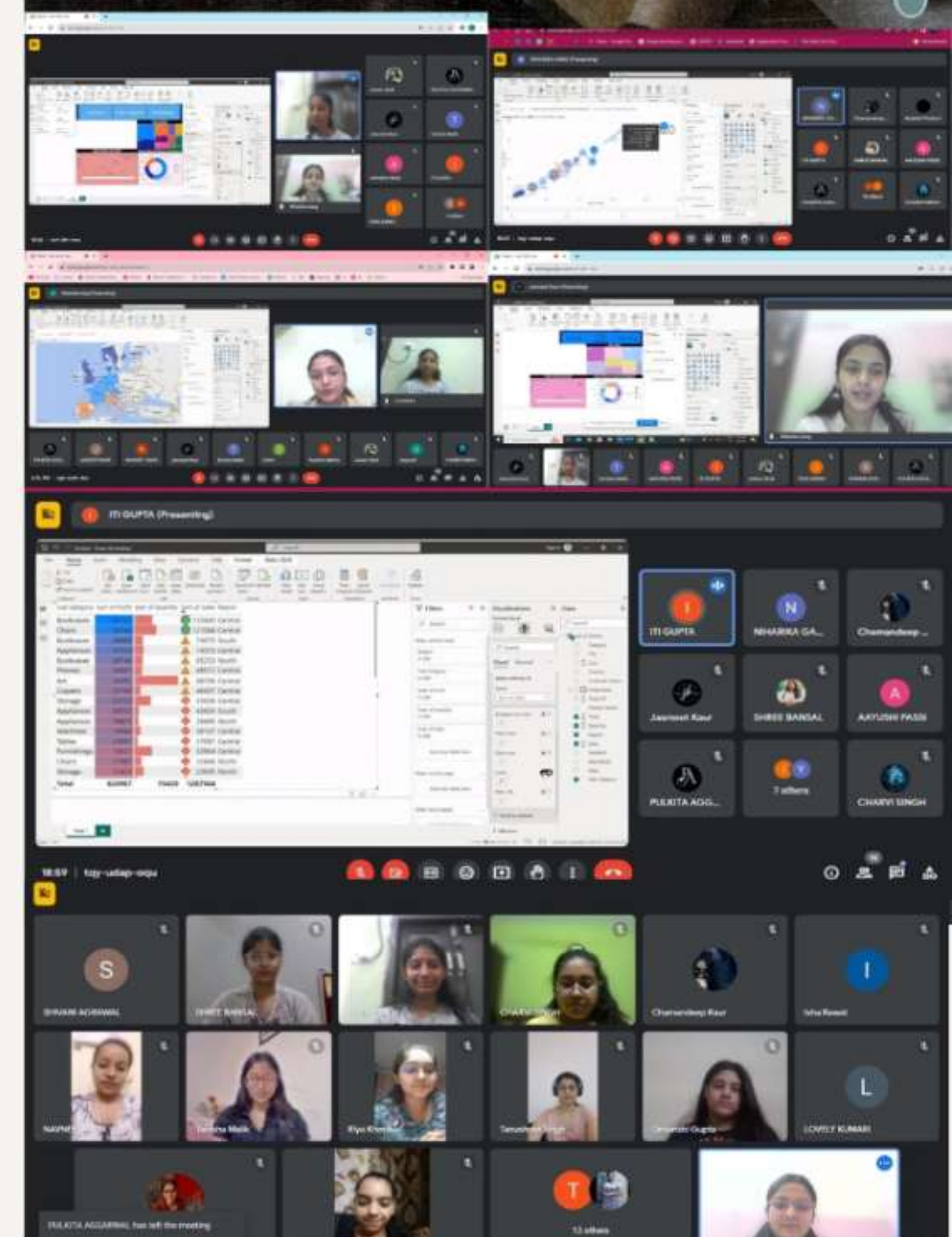
(Preparing dashboard)

On the seventh day of the Power BI workshop, participants learned about creating dashboards featuring slicers, donut charts, scatter plots, and tree maps from Niharika Garg. Iti Gupta covered dashboards with multi-row cards, matrices, and funnel charts. The session concluded with a doubt-clearing session to address any remaining queries, followed by a closing message of appreciation from Tanisha Malik.

WEEK PLAN

(6:00p.m. - 7:30 p.m.)

- DAY-1: Introduction to Power BI and how to download Power BI.
- DAY-2: Charts [column charts, stacked column charts, pie charts, donut chart, ribbon chart, funnel chart, line chart, area chart, line and column chart]
- DAY-3: Scatter plot, waterfall chart, tree map, gauge chart, table and matrix
- DAY-4: Maps creating
- DAY-5: Cards (numbers, date, text) and filters
- DAY-6: Slicers, preparing dashboard and giving assignment
- DAY-7: Preparing dashboard





HANDS-ON-WORKSHOP LATEX - A TOOL OF TECHNICAL WRITING AND PRESENTATION

An interdisciplinary hands-on workshop on “Learning LaTeX – A tool for technical writing and presentation” was held on February 26, 2024, by The Department of Computer Science and The Department of Statistics at Mata Sundri College for Women. The workshop had the primary aim to introduce the participants to LaTeX, a powerful typesetting system widely used in technical writing and academic publishing.

The distinguished speaker for the day was Ms. Sapna Grover, an Assistant Professor at the Department of Computer Science, Dyal Singh College, University of Delhi with over a decade of teaching experience and a profound knowledge of LaTeX spanning more than 14 years. Ms. Grover shared her expertise with the participants.

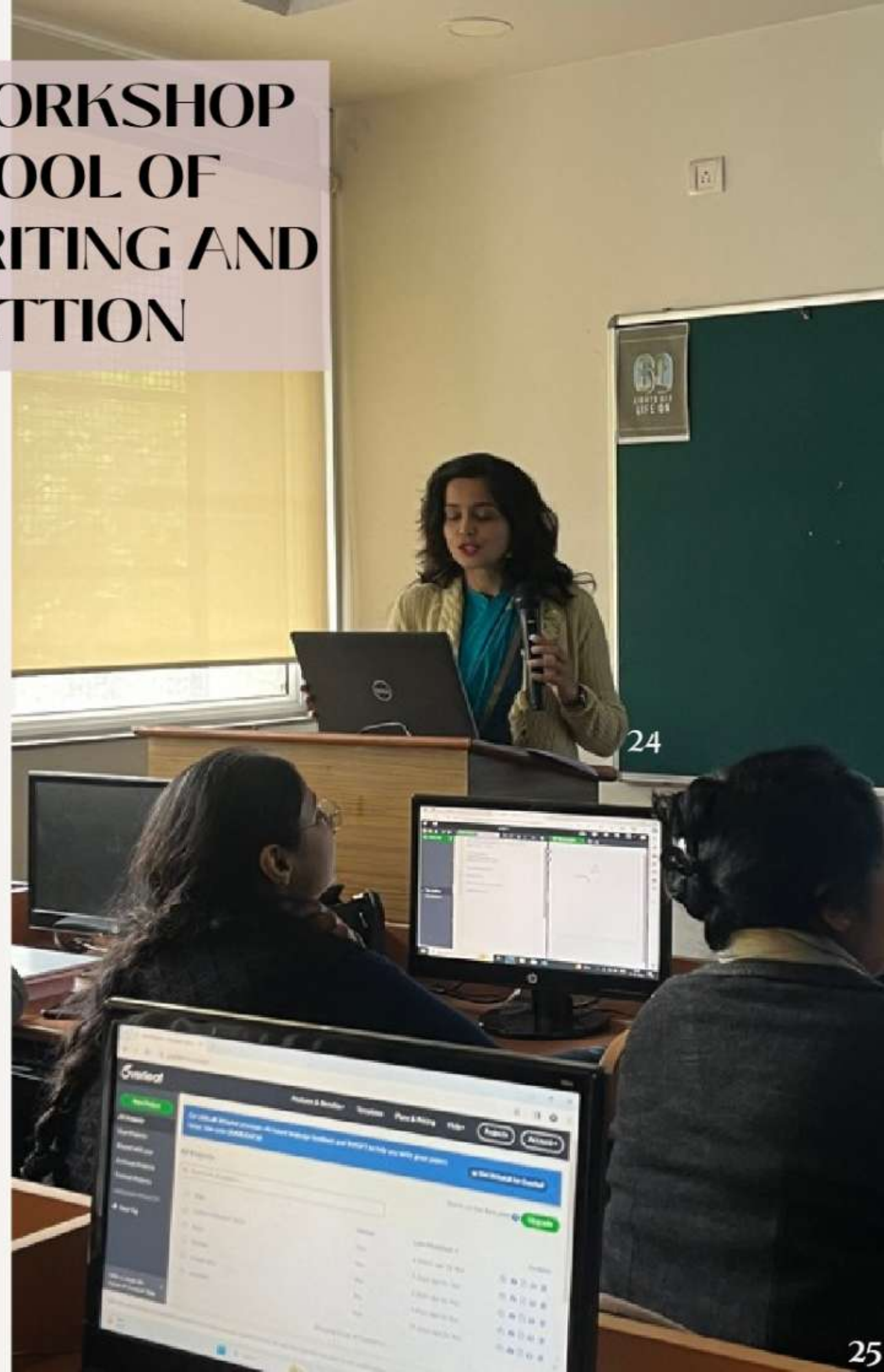
LaTeX is a typesetting system commonly used for technical and scientific documents. It provides a powerful and flexible way to create documents with high-quality typesetting, particularly suited for academic documents. LaTeX is widely used in fields like mathematics, computer science, engineering, and physics, where precise formatting and equation rendering are essential. With LaTeX, users can produce professional-looking documents with proper consistency and precision, making it a popular choice for academic papers, theses, reports, and presentations.

The workshop informed students about various aspects of designing and creating easy-to-communicate and easy-to-understand technical and scientific data of large amounts of complex quantitative and qualitative data and information with the help of static, dynamic, or interactive presentations. During the workshop, students gained hands-on experience with tools such as Overleaf, which enabled the attendees to learn the art of typesetting documents with engaging and informative formats that not only deliver information to the targeted audience but can also draw and hold the viewer's attention.

The interactive session sparked curiosity among all participants, ending at 3:15 PM with expressions of gratitude and enthusiastic applause for Ms. Sapna Grover. Her deep expertise on the topic left a lasting impression on everyone present.

Ms. Sapna Grover leveraged her expertise and provided a valuable opportunity for participants to gain insights into the powerful tool of LaTeX and enriched our understanding and proficiency in technical writing and presentation, due to which the seminar proved to be a resounding success.

As the session culminated, it was clear that the attendees felt confident in their ability to create outstanding presentations and typesetting documents for themselves. This hands-on experience provided them with a deeper understanding of LaTeX and the ability to apply their knowledge to any writing projects they take up in the future.



**By : Department of
Mathematics/Computer
Science/Statistics
Under the Aegis of Viksit
Bharat Secretariat, MSCW
No. of participants: 66**



Leveraging Generative AI for Programming Courses



A workshop was organized on the topic Leveraging Generating AI For Programming courses on March 13, 2024, by the Department of Mathematics, Computer Science, and Statistics at Mata Sundri College for Women. The workshop has the primary aim to enrich the participants about the significance of AI in programming and highlighting its transformative impact on education and practical application,

Professor Viraj Kumar, a prominent faculty member at the Kotak-IISC AI-ML Centre and a recognized member of the ACM Indian Council, shared invaluable expertise and perspectives with the audience. The event kicked off with a warm welcome extended to Professor Viraj, setting the stage for an atmosphere filled with enthusiasm and anticipation among attendees. Throughout the session, participants were enriched with invaluable insights and practical knowledge relevant to their daily lives. Professor Viraj skillfully delved into the significance of AI in programming, highlighting its transformative impact on education and practical application, from foundational concepts like binary code to advanced techniques such as generative AI. Attendees gained a comprehensive understanding of trends in programming and were also enlightened about the importance of algorithmic thinking and the critical skill of being able to critique, essential in navigating the dynamic landscape of programming.

Furthermore, Professor Viraj elucidated basic Python concepts, catering to the diverse range of attendees' skill levels. The session also explored the promising prospects and opportunities that generative AI presents in programming education and skill development. Attendees were encouraged to embrace this cutting-edge technology to enhance their programming capabilities. The event provided a platform for open dialogue and doubt sessions, fostering a collaborative environment where attendees could seek clarification and engage in meaningful discussions.

A vote of thanks was extended to Principal Ma'am Professor (Dr.) Harpreet Kaur and the organizing committee for their efforts in orchestrating a successful event. In conclusion, the session was deemed a resounding success. Attendees departed feeling inspired and empowered to leverage the potential of generative AI in their programming endeavors, armed with newfound knowledge and insights into the future of the field.



An interactive talk session on the topic of “Mental Health Awareness And Substance Use” was organized on 11 March 2024 under the aegis of ‘VIKSIT BHARAT SECRETRAIT’, by the Department of Statistics and Department of Philosophy in collaboration with ‘AAROGYAM’ (a cell for well-being and mental health, an initiative by IQAC) at Mata Sundri College for Women. The talk session had the primary aim of empowering participants with knowledge and strategies to safeguard their Mental Well-being and make informed decisions regarding substance use.

The distinguished speaker for the event was Dr. Aman Dua , MBBS, MPH Doctoral Scholar at Centre for Community Medicine, AIIMS UGC Scholar, MAMTA-HMIC Fellow, Grant Awardee of Royal School of Tropical Medicine and Hygiene, London.

Dr. Aman Dua commenced the session by delivering a comprehensive presentation on Mental Health. She emphasized the significance of Mental Well-being and discussed common Mental Health Disorders prevalent among students, such as anxiety and depression. She elucidated the effects of Substance use on physical and Mental Health, including addiction and adverse Health consequences.

The talk incorporated interactive sessions where participants actively engaged with Dr. Dua, sharing their experiences and posing questions. Dr. Dua provided valuable insights, addressing concerns related to recognizing Mental Health issues and navigating peer pressure.

The summoned session concluded with the dissemination of informational resources on Mental Health services and support networks available within the college and broader community. Attendees were encouraged to utilize these resources for guidance and assistance as needed.

With the invaluable assistance rendered by volunteers and the college faculty members, the convened session on Mental Health Awareness and Substance Use was a resounding success. By providing valuable information, facilitating open discussions, the convoked session contributed to breaking the stigma surrounding Mental Health and empowering participants to prioritize their Well-being.





Education through Raising Consciousness and Vedic Life Medication

A workshop on "Education through Raising Consciousness and Vedic Life Meditation" was held on 19 April 2024, organized by the Departments of Philosophy and Statistics in collaboration with Aarogyam, an IQAC initiative for mental health, at Mata Sundri College for Women. The primary aim was to promote holistic education by integrating philosophical wisdom and Vedic practices.

Ms. Monika Dahiya, a renowned consciousness coach, meditation teacher, and yoga instructor, was the keynote speaker. She introduced Vedic life meditation techniques to enhance personal well-being, mental clarity, emotional balance, and holistic development. The workshop aimed to show how ancient Vedic wisdom can be applied in modern educational contexts.

Attendees included students from various disciplines, faculty members from the Philosophy and Statistics departments, and invited experts in philosophy and Vedic studies. Ms. Dahiya's address highlighted the significance of raising consciousness in education, stressing that true education includes mental and spiritual growth. She explained how raising consciousness enhances self-understanding and learning experiences.

Ms. Dahiya led guided meditation sessions to help participants achieve mental stillness, reduce stress, and improve concentration. Interactive group discussions and activities focused on applying Vedic meditation principles in daily life, encouraging participants to share experiences and learn from each other. The panel discussed incorporating Vedic wisdom into modern education, with Ms. Dahiya sharing insights on overcoming challenges and leveraging ancient practices for contemporary benefits.

The workshop was a resounding success, emphasizing the importance of holistic education that encompasses mental, emotional, and spiritual dimensions. The collaboration between the departments and Aarogyam showcased the value of integrating ancient wisdom with modern educational practices. Participants expressed a desire for more such workshops to continue their journey of personal and academic growth.



Article Section

Ethics in Statistical Analysis: Misuse of statistics and data manipulation

PREET SHUKLA - STA/21/37

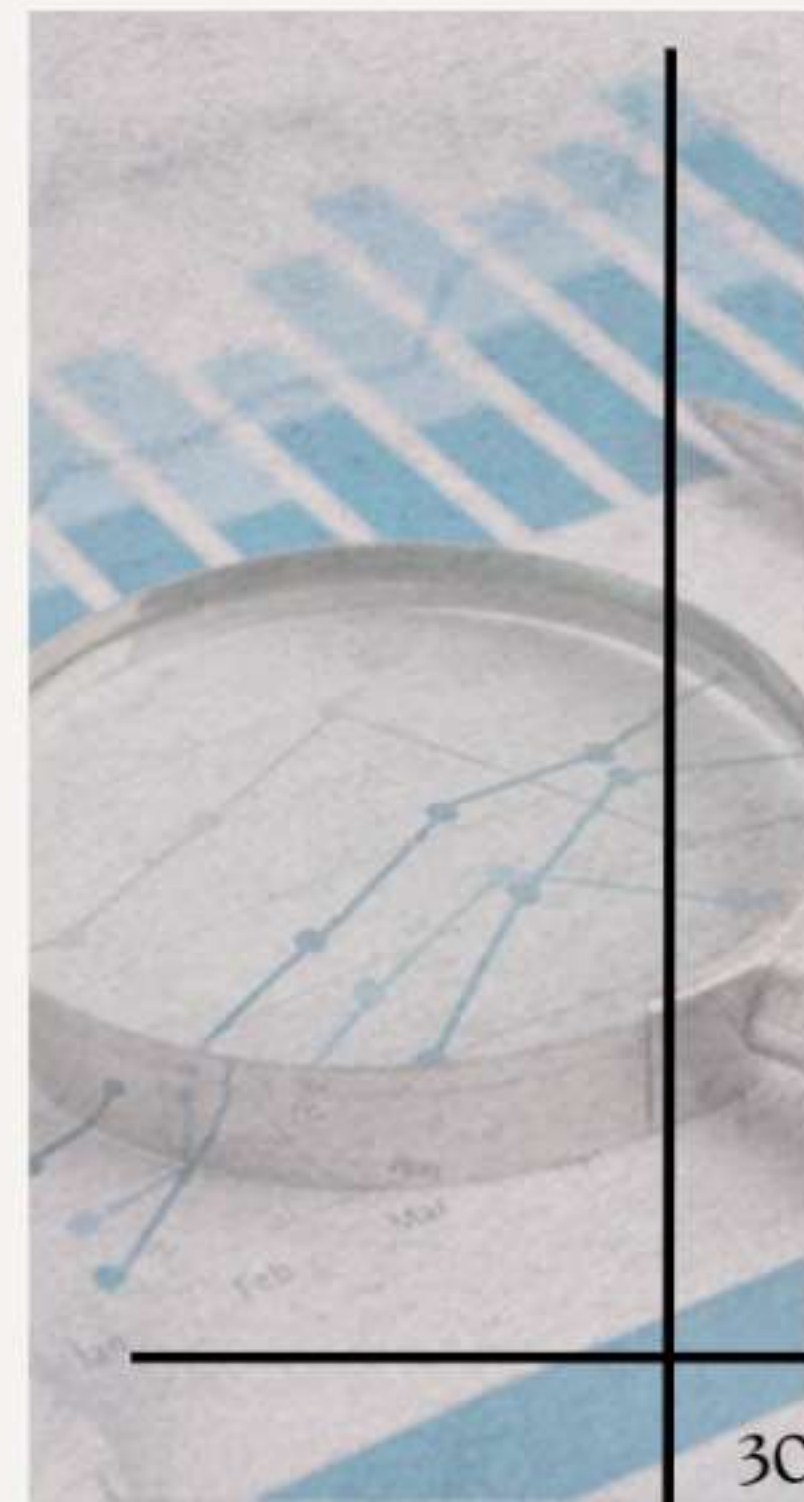
Like any other subject, statistics has ethical standards that researchers must follow to ensure that it accurately conveys the information without distorting it.

Researchers should avoid engaging in several scenarios where unethical activity in statistics may occur. The saying "Lies, damned lies, and statistics" came into being because it is easy to modify and conceal facts, projecting only what one desires rather than what the figures say. There is no reason to doubt the results of a statistical study because this doesn't always happen.

Ethics in statistics is not always easy and can be rather complicated. It also depends on the type of statistical analysis conducted. Any stage of the data processing, from data collection to interpretation of data, is vulnerable to unethical behavior.

For instance, asking the wrong questions can evoke powerful emotions rather than objective reality, and information collection can inherently introduce bias. Research aims to confirm a specific viewpoint rather than reveal unbiased truths, which may happen.

Scientists may engage in other unethical activities like omitting data outliers in their reports and analyses to support their theory or point of view. Both the pure and social sciences experience this. Scientists engage in unethical behaviors when they conceal data or only use data that supports a specific theory.



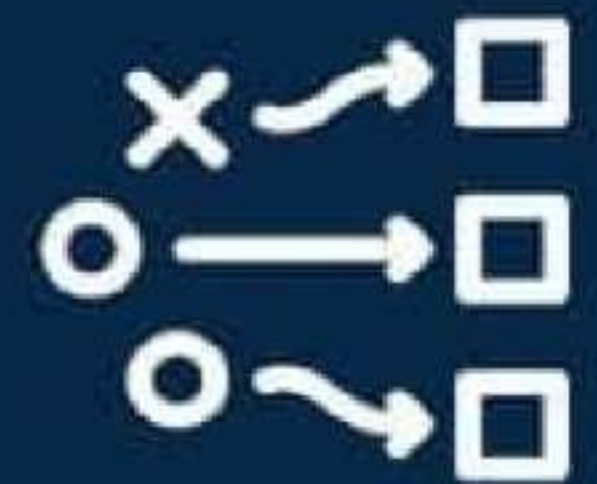
Statistical ethics are crucial for data representation as well. Although statistics are truthful, their interpretation and presentation might be deceptive. For instance, following a comprehensive consumer survey, a company may choose to disclose and make public the information and figures that favorably portray the enterprise, completely ignoring or undervaluing other data.

For instance, a car can have a high comfort rating but a low safety rating. The corporation is a way, misrepresenting customers' and shareholders about the picture by displaying only the comfort metrics for the car.

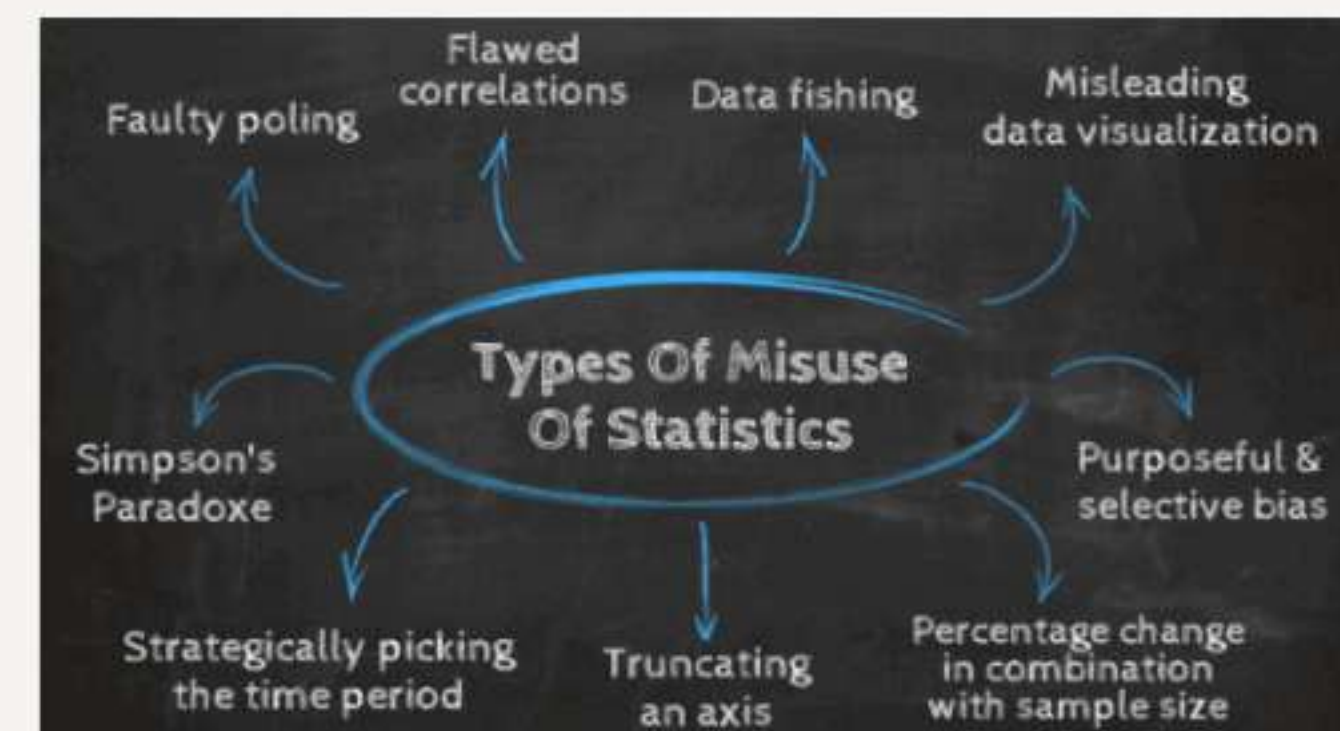
Polls and surveys frequently engage in unethical activities to support a perspective. For instance, a survey that is not statistically significant may not accurately reflect the opinions of the general people. Many surveys, though, choose not to publish this could be deceptive, as well as their poll.

As a researcher, it is crucial to maintain objectivity and present the picture that has been drawn from the experiment without withholding any information or exaggerating something for selfish reasons. Statistics ethics are crucial for guiding research in the appropriate direction and ensuring that it is an unbiased and reflective reality.

Data Manipulation



Alters **relationships** between data items.



DATA VISUALIZATION IN STATISTICS: THE IMPORTANCE OF VISUAL REPRESENTATION OF DATA

SANSKRITI KANDPAL - STA/21/23

Data visualization is the graphical representation of data and information, essential for understanding and communicating complex information effectively. It involves creating charts, graphs, and other visual representations of data to identify patterns, relationships, and trends. Here's a refined version of your essay:

Data visualization, the graphical representation of data and information, stands as an indispensable tool in statistics. It enables researchers to comprehend and communicate complex datasets effectively.

By employing charts, graphs, and other visual aids, data visualization transforms raw numbers into coherent visual narratives, revealing patterns, trends, and outliers that might otherwise remain obscured. Firstly, data visualization facilitates data interpretation. While raw data can be daunting in textual or numerical formats, visual representations like bar charts, scatter plots, and line graphs offer clear and concise summaries. These visualizations unveil patterns and trends, easing the identification of outliers and irregularities inherent in the data.

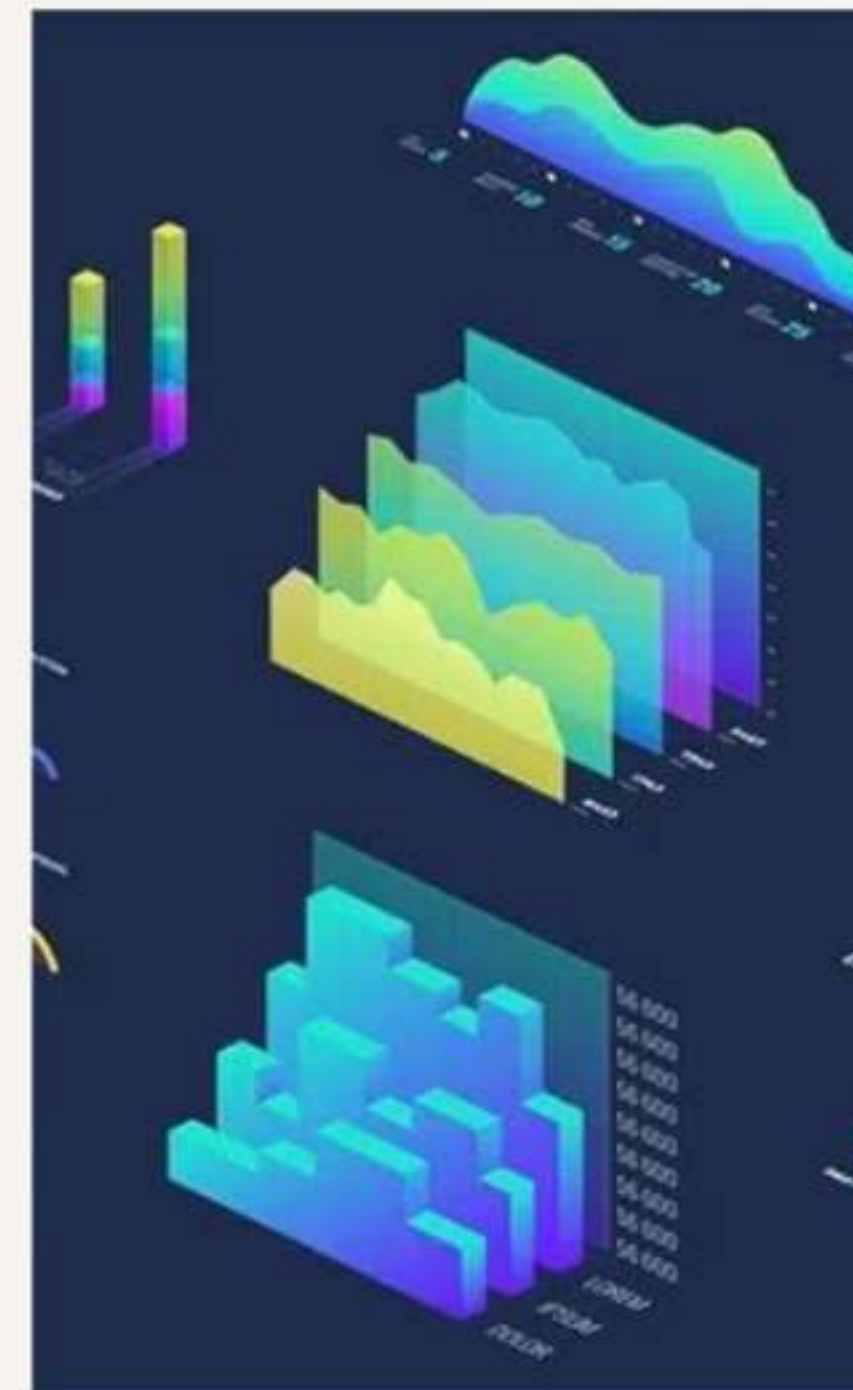
Secondly, effective communication of research findings hinges upon data visualization. Presenting data in visually appealing formats enhances comprehension and engagement across broader audiences. By crafting compelling narratives through charts and graphs, researchers can effectively convey complex statistical concepts, making their data more accessible and memorable.

Moreover, data visualization serves as a potent tool for error detection and correction. Visual representations readily highlight discrepancies and anomalies, empowering researchers to rectify errors and ensure data accuracy and reliability.

Furthermore, data visualization unveils latent patterns and trends concealed within raw datasets. Through visual analysis, researchers can uncover correlations and trends that might elude traditional data inspection methods. These insights inform predictive modeling and decision-making processes, enriching statistical analysis with actionable intelligence.

Lastly, data visualization facilitates the identification of relationships between variables. By visually representing data, researchers can discern correlations and causal links, providing invaluable insights for predictive modeling and decision support.

In conclusion, data visualization stands as a cornerstone of statistical analysis. By transforming data into visually digestible formats, it fosters comprehension, communication, and error detection. As datasets grow in complexity and volume, the importance of data visualization in statistics will only continue to burgeon, cementing its status as an indispensable tool for researchers.



MACHINE LEARNING AND STATISTICS: APPLICATIONS AND DIFFERENCES

SANSKRITI KANDPAL - STA/21/23

Machine learning and statistics, while closely intertwined, exhibit distinct applications and disparities. Here's a revised version of your essay:

Machine learning and statistics are foundational pillars of data science, each wielding unique applications and divergences. While both fields contribute significantly to the data-driven landscape, they operate on distinct methodologies and serve distinct purposes.

Machine learning boasts a diverse array of applications across various domains. From image and speech recognition to personalized recommendations and fraud detection, machine learning algorithms power an array of innovative solutions. These algorithms leverage vast datasets to derive insights and make predictions, revolutionizing industries ranging from healthcare to finance.

In contrast, statistics finds application in fields like medical research, public policy, marketing, and quality control. It enables researchers to analyze data, draw conclusions, and make informed decisions based on empirical evidence. From evaluating treatment efficacy to predicting consumer behavior, statistics underpins a myriad of critical functions in both academia and industry.

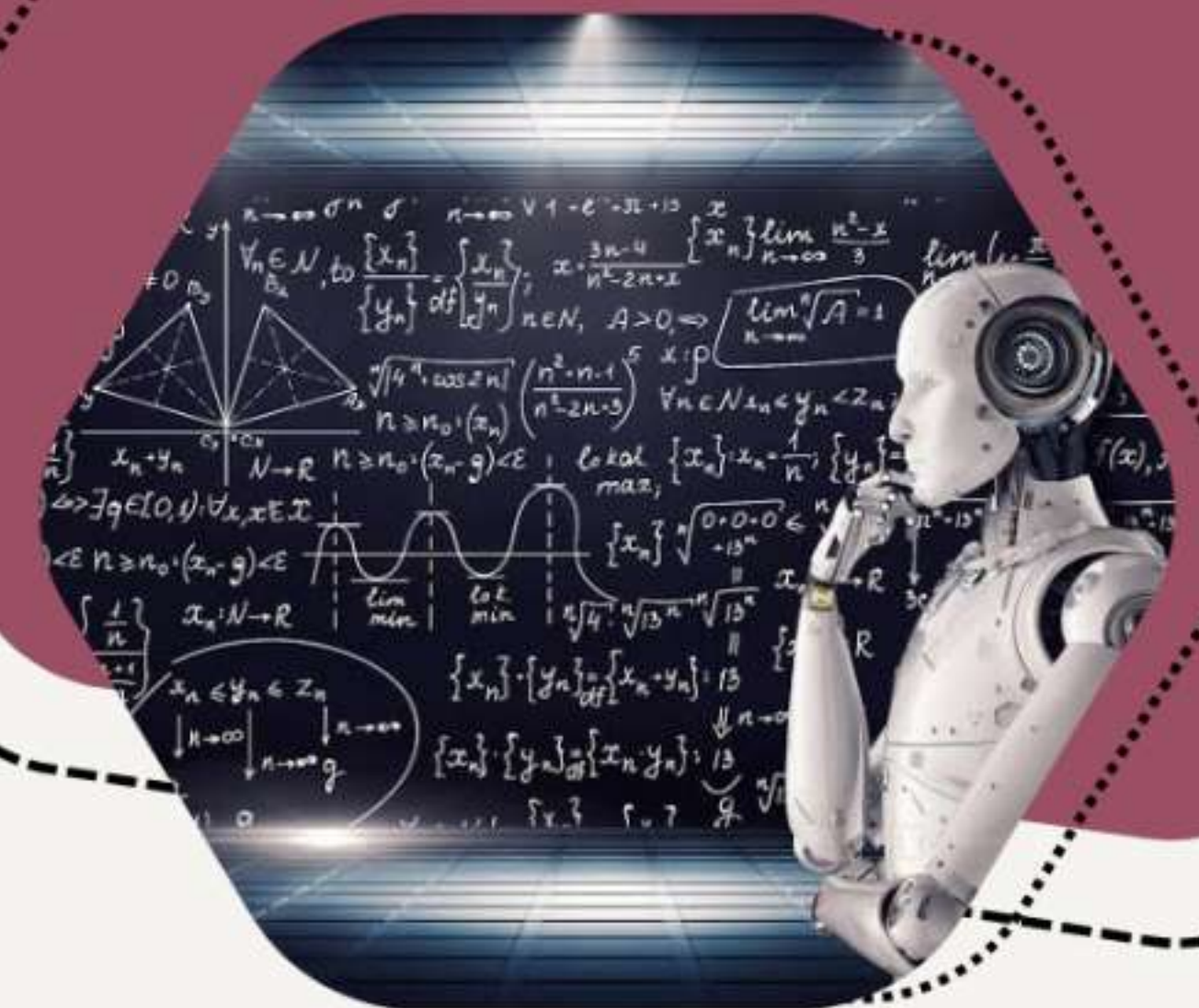
Despite their shared goal of extracting insights from data, machine learning, and statistics diverge in several key aspects:

1. **Data Handling:** Machine learning algorithms excel in handling diverse data types, including structured and unstructured data. In contrast, statistics primarily deals with structured data.
2. **Objective:** Machine learning algorithms are geared towards making predictions or decisions based on data. Conversely, statistics aims to draw inferences about populations from sample data.

3. **Scale:** Machine learning algorithms are designed to process large datasets efficiently. Statistics, on the other hand, applies to datasets of varying sizes, from small-scale studies to large-scale surveys.

4. **Assumptions:** Machine learning algorithms operate without strict assumptions about data distribution, whereas statistics often rely on assumptions like normality and independence.

In essence, while machine learning and statistics share common ground in their pursuit of data-driven insights, they diverge in their methodologies and objectives. Machine learning thrives in predictive analytics and large-scale data processing, while statistics excels in inferential analysis and hypothesis testing. Together, these disciplines form the bedrock of modern data science, driving innovation and discovery across diverse domains.



THE USE OF STATISTICS ON SPORTS : A DEEP DIVE INTO ANALYTICS

AMANJOT KAUR - STA/21/66



Sports have always been a crucial part of human culture and history, serving as a source of entertainment, competition, and communication from ancient times to the present day. In recent years, sports have also emerged as a domain for information and analysis. The use of statistics in sports has revolutionized how we understand and evaluate athletic performance. This article delves into sports analytics and the role of statistics in sports.

Sports analytics involves the collection and analysis of data related to sports, gathered from various sources such as sensors, cameras, and other devices. Through sports analytics, patterns and trends in the data can be identified to improve sports performance, predict outcomes, and support strategic decision-making.

One of the earliest examples of sports analytics was the use of batting average in baseball, dating back to the mid-19th century. Over time, additional statistics such as on-base percentage, slugging percentage, and on-base plus slugging percentage (OPS) were developed, enabling teams to more comprehensively evaluate player performance and make informed decisions about roster construction and game strategy.

Today, sports analytics has expanded beyond baseball to encompass almost all major sports. In basketball, for instance, teams utilize advanced metrics such as effective field goal percentage, true field goal percentage, and player impact rating to evaluate player performance. Similarly, in soccer, teams analyze data on passing accuracy, shots on goal, and possession to inform game strategy and assess team performance.





Fantasy sports represent one of the most popular applications of sports analytics, where participants select real-life athletes to form teams and compete based on their performance in actual games. Winning in fantasy sports requires a deep understanding of player statistics and trends. Consequently, fantasy sports have become a multi-billion-dollar industry with millions of participants worldwide.

Another significant impact of sports analytics is in sports betting, where statistical models are used to predict game outcomes and set odds accordingly. Bettors can use these statistics and odds to make more informed bets, leading to the emergence of industries such as daily fantasy sports and betting software.

Despite its advantages, the use of statistics in sports is not without controversy. Critics argue that the focus on statistics may devalue intangible qualities such as leadership, teamwork, and chemistry. Additionally, concerns have been raised regarding the privacy implications of collecting and analyzing athletes' data.

In conclusion, the integration of statistics in sports has fundamentally transformed how we perceive and analyze athletic performance. From the early days of using basic metrics like batting average in baseball to the sophisticated analytics seen across various sports today, statistical analysis has become indispensable in enhancing player evaluation, strategic decision-making, and fan engagement. While there are concerns about the potential devaluation of intangible qualities and privacy issues, it is evident that statistics have become integral to modern sports culture. With continued technological advancements, their role is expected to expand further.



SURAMYA DINKAR - STA/21/24

This topic reviews strategies on how to optimize the supply chain to offer efficient business operations to the users at the lowest cost:

Supply chain optimization is about the balance between demand and supply while minimizing expenses. This means finding the line where there is sufficient inventory level to meet customer demand without over-investments into stored inventory. Hence the major strategy is as follows: accurate forecast. A business benefits from analyzing sales margins and buying trends previous data forecasts to accurately predict future customers; this helps a venture to avoid out-of-stock situations or having more exotic items stored and waiting to be sold.

Carefully situate factories, warehouses, and distribution centres to minimize transportation costs and lead times. A change in network layout not only reduces shipping costs but also enables the company to be more responsive to customer needs.

Transportation costs can significantly increase the supply chain's cost. Various strategies, such as integrating small shipments into one and choosing the most cost-effective route, can be implemented to cut down costs and make the delivery time as short and predictable as possible.

Close cooperation with suppliers is also important. Good relationships and the willingness to assist with easy exchange can streamline business management, enhance product quality, and encourage suppliers to give more favourable terms.



Sourcing:

This involves identifying and selecting suppliers who can provide the materials and services needed to produce goods.



Procurement:

This involves purchasing goods and services from suppliers at the right price and quality.



Manufacturing:

This involves producing and assembling products in accordance with customer demand.



Inventory management:

This involves managing inventory levels to ensure that there is enough stock to meet customer demand without excess inventory.



Logistics and transportation:

This involves managing the movement of goods and materials from suppliers to manufacturers to distributors to customers.



5. Technology Integration

Finally, the use of advanced tools and software can greatly optimize the supply chain. Demand forecasting software and business intelligence tools increase the efficiency of operations and reduce costs.

- Case Study: The Amazon Effect

Amazon's system shows good ways to make things work better. It has places to store products and smart computer programs. This helps Amazon send things out really fast and with few problems.

- Conclusion

Making supply chains better is huge for companies to stay in the game. By paying heed to what people will buy, setting up the best network, taking care of moving things, working with others who give them stuff, and tying in tech tools, groups can cut costs a lot and make things run smoother. This leads to happy buyers and a business that keeps doing well.



Data science - Applications in tackling mental health concerns

ANANYA PURI - STA/21/4



Due to the high pressure and fast-paced modern society, people are especially vulnerable to mental health issues. The expectation of being hyper-independent has skyrocketed in recent times with extended work hours, social isolation due to hybrid/remote work modes, excess workload and the feeling of wanting to “get ahead” while still young. While it is not wrong to be ambitious and aspire to be successful, we often let our work life balance go for a toss in the name of the daily grind. Moreover, due to the lack of awareness and help people often do not understand how to process their feelings and regulate themselves.

Unable to get access to the help they need, adults and children alike find it difficult to navigate their mental health and progress in life in a healthy manner. Globally, there has been a sharp increase in the number of adolescents and teenagers suffering from some form of mental health problem. If unreported or underdiagnosed, these mental illnesses may have a profound impact on the lives of these young adults. Mental health not only affects the psychology of a person but may also seep into their daily life, it may strain their relationships, decrease social interactions, cause physical illnesses or impair the ability to function and work normally.

At its core, data science will enable researchers to quantify the effects and causes of mental illnesses. Analyzing behavioural patterns using machine learning makes it possible to identify early symptoms of mental health problems in a large population and devise effective treatments. Artificial intelligence also holds great potential for mental health crisis prevention provided the correct algorithms designed with a high level of precision are used.

Mental health is a crucial aspect of the holistic well-being of a person. Just as we take care of and maintain our physical health, it is important to consider our mental health as well to be truly healthy. However, it is often the case where mental health is not a welcome topic within households or looked upon as a taboo in our society making one feel that it is better to let go of such problems rather than talk about them or get the required assistance. Often, it is this stigma around mental health that causes the problem to go completely unnoticed or underdiagnosed/misdiagnosed leading to late treatment or no treatment at all.

The usage of data science in identifying and diagnosing mental health illnesses will ultimately reduce the personal bias and variability that undeniably creep into observations. Incorporation of data science in the mental health industry will yield more reliable data since it will become possible to collect everyday statistics over a long period rather than relying on subjective observations made within very little time. Furthermore, inculcating data science in mental health surveys and counselling provides greater anonymity and a personalized treatment plan for the respondent.

A real-life example further bolstering the potential of data science in tackling mental health issues is the Virtual therapist devised by the University of Southern California under a project called “SimSensei”. The virtual therapist named “Ellie” was designed to help veterans of the military with depression and Post Traumatic Stress Disorder (PTSD). Ellie uses a webcam, a microphone and a Kinect sensor to pick up nonverbal cues to identify cases of PTSD since the signs of the illness are often invisible to common folk. Ellie received positive feedback across the board, many veterans praised the virtual therapist for creating a safe and non-judgmental environment.

Another application of data science in crisis counselling is the Crisis Text Line (CTL) for suicide prevention. The CTL uses machine learning to analyze a data set of millions of texts exchanged with users to pick up data on depressive behaviours and texting patterns of people who are at high risk of suicide. Unlike Ellie, the CTL uses advanced machine learning technology instead of physical sensors to identify words and emojis that may be linked to a higher probability of suicidal ideation or self-harm. The CTL has proved to be an excellent alternative prevention service since it caters to many people who may not be as comfortable expressing their mental health concerns telephonically.

With cases of mental health concerns soaring rapidly, it is essential to provide cost-effective, accessible, and bias-free counselling and crisis prevention services. The inclusion of data sciences in the development of effective treatment plans for mental illnesses will ensure the availability of aid whenever required to many people simultaneously.



It is imperative that we, as a society, recognize that mental health concerns need to be identified and diagnosed, just like any other health problem. The advancement of treatment and prevention plans can only take place with adequate awareness and reduction of stigma around the topic of mental health. Change may be gradual, but it is not impossible, conversations about mental health with peers, friends and family may be a stepping stone to a transformation into a society with a positive attitude towards tackling mental health concerns and provision of help without judgement

The Remote Revolution: Beyond Cubicles and Coffee Breaks

CHARVI SINGH - STA/23/36



In a world where the daily grind once meant navigating rush hour traffic and office politics, a seismic shift has occurred: remote work has become the new normal. According to recent statistics, the percentage increase in remote job postings over the past decade has skyrocketed faster than a cat video goes viral on the internet.

"It's like witnessing the evolution of the workplace in fast-forward," remarks Dr. Workaholic, a renowned expert in the field. "Who needs water cooler chats when you can have Zoom meetings in your pajamas?"

Indeed, the number of people identifying as digital nomads has surged, with more individuals opting for a laptop and a view of the beach over a corner office. "Why settle for a cubicle when you can have the world as your office?" quips Sarah Sandcastle, a self-proclaimed nomad.

But it's not just about swapping suits for flip-flops; the economic impact of remote work on local communities and global markets is nothing to scoff at. Remote work has the potential to revitalize struggling rural areas by allowing talented individuals to contribute to the economy without relocating. This influx of remote workers can breathe new life into local businesses, from quaint cafes to boutique shops, boosting revenue and creating jobs.

Moreover, remote work challenges traditional corporate structures, leading to increased innovation and productivity. With employees liberated from the constraints of a physical office, companies can tap into a global talent pool, driving growth and competitiveness in the global market.

So, as we navigate this brave new world of remote work, one thing is certain: the days of the 9-to-5 grind are as outdated as fax machines and floppy disks. Welcome to the future, where the only commute is from your bed to your desk.

Statistics in Social Work Research

ADHYA MEHROTRA - STA/22/34

TANISHA TIWARI - STA/22/33

CHARVI SINGH - STA/23/36

The core of Social Work Research and Statistics is a method that merges quantitative data (numerical measurements) and qualitative information (narratives, observations) to get in-depth recognition of social problems. The result is the provision of evidence-based interventions and policies that must cover the different population groups and communities in an attempt to secure the overall solution. According to Clifford Woody, research involves the stages related to the process of problem definition, forming the hypothesis, data collection, organization, evaluation, and finally leads us to the conclusions and findings.

The research approach involves inclining the questions and the issues, creating a solution or a plan of action to address the questions or problems at hand, and finally garnering and analyzing data throughout the process. Selecting an efficient method and design is crucial in the implementation of research. Some common factors to all good pieces of research are, that there must be a deductive character present and should include precise observations and measurements, deduce theories, principles, generalizations, and many other conclusions.

Our purpose is to acquire truth scientifically, arranged into four main groups: exploration (functions), description (advances), diagnosis (rates), and hypothesis testing (correlation/causation).



Social research is a systematic scientific approach that is meant to uncover the intricacies involved in the human conditions of a particular society. By definition, this means that it is a continuing inquiry into making a well-balanced methodology that would allow us to slide down frictions of social fabric. Human-oriented research which exploration is targeted at an unambiguous revelation through the complex process, is smart and strong enough to untie the knots as they come. This line of thinking leads to an unequivocal outcome

Social research is a framework in which several essential ideas play the role of the skeleton of academic questions. These ideas aside from any physical space are abstract, in which they guide researchers to come up with their suppositions and theories. It is like phenomena that are observed or difficult to understand abstract items. With the help of these abstractions, the researchers make their way to comprehending the complexities of human actions and the richness of the social dynamics. Eventually, social research represents a thorough and complex process of the subtleties of the world surrounding us. What the discoveries subsequently lead to becomes a bridge across the unnoticeable domain connecting it to the perceivable domain. Considered to be invisible to the naked eye but can be used accordingly as an amazing framework to help humans in their experience structuring, these abstract conceptual frameworks have the key power.



The variables hold the most important role in research because they introduce changes and are the key elements in the inquiry framework. Within this equation, the contrast between exogenous and endogenous variables becomes even more basic. In this orchestra of explorations, social research is not limited to science, but there happens to be an experience, that tries to discern the complex costs that constitute the social fabric.

Social workers wade into the murky waters of human behavior, a constantly evolving and unpredictable domain. This complexity throws up some real brain teasers for research, like personal biases and the challenge of making findings relevant to a broader group. But social workers haven't thrown out the research rulebook! Solid research methods act as a flashlight, helping them reach reliable conclusions that guide their significant decisions.

So, how does social work research work in practice? It all starts with a deep dive into understanding a client's specific needs. Think of it like untangling a messy knot – the social worker carefully examines the situation. Once they have a clear picture, they set specific and measurable goals for any interventions, like a roadmap for change. With the interventions implemented consistently, the social worker closely tracks the client's response to gauge their effectiveness.

The big-picture goal of social work research is double-barreled: to equip social workers with the knowledge they need to create powerful programs and to gain a deeper understanding of the root causes of social problems. Think of it as both building a toolbox for social work and figuring out why certain problems keep popping up. Social work research is a wide net, encompassing studies that look at everything from the need for specific services to whether different intervention techniques work.

Yes, social work research has its limitations. Social workers' values can influence their findings, and doing research in the real world can be tricky. But what sets social work research apart from traditional social research is its focus on tackling real-world problems head-on and finding practical solutions.

In the end, social work research acts like a bridge between theory and action. Its main goal is to improve the effectiveness of social interventions and add another piece to the puzzle of human understanding.



BIG DATA FOR MEASURING POVERTY

SANYA GAIROLA - STA/23/11

Poverty has remained a global challenge for decades and various statistical techniques have been considered for measuring the poverty trends in recent times. While poverty has declined since past few years the sudden occurrence of COVID-19 led a break to this decline in poverty and vast population had hit poverty since this outbreak. While the research on poverty continues there are several sources that can be used to collect data on poverty.

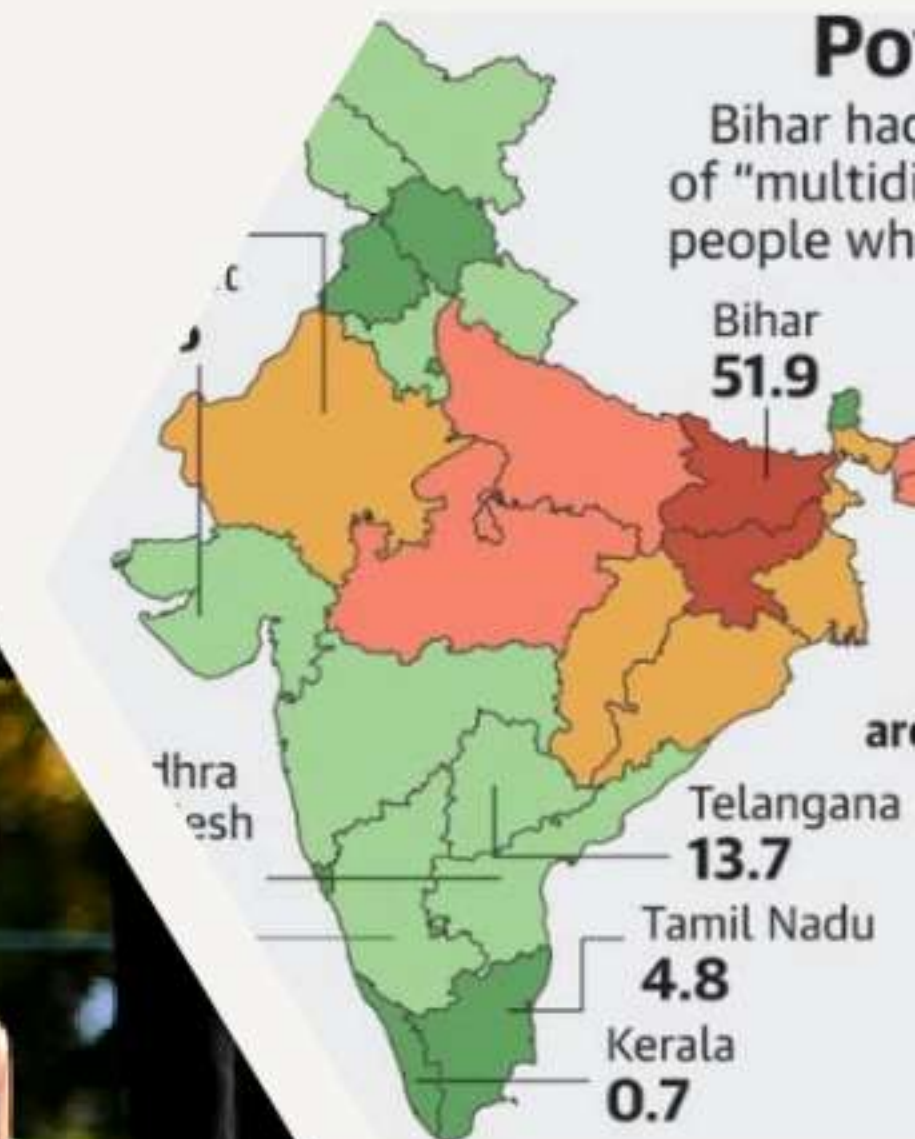
Big Data which consists of large number of complex datasets are used for analyzing the poverty trends in the economy. These data are very useful for forecasting and analyzing the information as it opens a wide range of data to study upon which gives a comprehensive understanding to the researcher.

The wide sources include government databases which contains information of a vast demography which release various annual reports on income levels of people, employment which can help to study and gather more on poverty. Today's world has everything on social media platforms the data of social media of the public can be analyzed for applying statistical techniques of measurement of poverty. The vast data with the hospitals and healthcare institutions is also a major source of big data that can reveal a lot about poverty in various areas and different groups of people. The access of healthcare to people and the need for it can provide a lot of information on health-related dimensions of poverty.



One of the prominent sectors of insurance that reveals a lot about the data of persons financially, economically and living pattern can also be associated for the analysis on poverty. The banking sector one of the most prevalent of all sources that has almost maximum capacity to express the data of customers for measuring poverty by including the data of loan, spending, income levels, financial transactions, accounts, bills, subsidies, even the pattern of spending on various sources gives vast amount of big data for technical analysis over poverty. The personal sets of data of individuals when collected are also a source of big data like that of Mobile datasets which includes all the mobile data including the call records, recharges, SMS data, mobile transactions, the internet connected world today also makes it possible to study the data of mobile searches and choices of individuals that can be used as a set of information revealing poverty trends. The rest of the common sources of surveys and census are ready to be used for studying poverty.

Such studies on data helps in forming reports and forecasting. One such report shows that the COVID-19 pandemic has increased poverty sharply from 2019 to 2020 by 8.3 percent to 9.2 percent, this was the first time that such extreme rise in poverty came into since 1998 and 1990. Since the pandemic slowed the economy has been recovering from poverty. The forecasts for the year 2022 show that around 75 million more people than expected prior to pandemic will be living in extreme poverty. The rising inflation rate and the impacts of wars between countries could increase this number to 95 million by 2030 that will leave the world furthermore away from meeting the target of ending poverty.



Survival Analysis: Understanding Time-to-Event Data in Medical Research

SHIVANI AGARWAL - STA/21/33

Survival analysis is essential in medical research, offering valuable insights into the timing of critical events like disease progression, treatment efficacy, and patient outcomes. Let's delve into its fundamentals, applications, and significance in clinical decision-making.

Introduction to Survival Analysis:

Survival analysis is a statistical method used to analyze time-to-event data, focusing on when a particular event occurs. Unlike traditional statistics, it deals with censored data, where not all subjects experience the event by the study's end.

Key Concepts in Survival Analysis:

- 1.Survival Function: denoted by $S(t)$, it shows the probability of surviving beyond a given time point.
- 2.Hazard Function: denoted by $h(t)$, it represents the instantaneous rate of event occurrence at time t , given survival up to that point.
- 3.Censoring: happens when the event of interest hasn't occurred for some subjects by the study's end.

Applications in Medical Research:

- 1.Clinical Trials: Comparing survival times between treatment and control groups to assess treatment efficacy.
- 2.Cancer Research: Estimating survival rates and identifying prognostic factors for different cancer types.
- 3.Epidemiological Studies: Investigating how risk factors affect disease occurrence and progression.

Survival Analysis Techniques:

- 1.Kaplan-Meier Estimator: Estimates survival function from censored data, suitable for ungrouped survival times or unequal intervals.
- 2.Cox Proportional Hazards Model: Assesses the association between covariates and survival time.

3.Accelerated Failure Time Models: Specifies how covariates directly affect the time scale.

4.Life Table Method: Applicable when survival times are grouped into equal-length sub-intervals.

Challenges and Considerations:

- 1.Censored Data: Proper handling and interpretation are crucial.
- 2.Time-Varying Covariates: Some covariates change over time, requiring special modeling techniques.
- 3.Competing Risks: Understanding the interplay between different outcomes is essential.

Conclusion:

Survival analysis is crucial in medical research, providing insights into time-to-event data. By understanding its concepts and methodologies, researchers can effectively analyze and interpret survival data, improving patient care and clinical decision-making.



The Silent Toll: Neglecting Health in Your Prime Years

KHUSHI PANDEY - STA/21/12

Ah, the roaring 20s and the thrilling 30s – a time when life feels like an endless adventure. You're navigating through the hustle of work, socializing with friends, and embracing newfound independence. Amidst this whirlwind, it's easy to overlook a critical aspect: your health.

Imagine this scenario: You're in your mid-20s, juggling a demanding job, indulging in weekend revelries, and treating yourself to all sorts of culinary delights without batting an eyelid. Fast food, sugary drinks, late nights... it's all part of the fun, right? But what if I told you that this seemingly carefree lifestyle could have repercussions that catch up with you sooner than you expect?

Here's the sobering truth: while you may feel invincible in your youth, your body doesn't possess an armor against the consequences of neglect. Let's delve into some of the aftereffects of this nonchalant approach to health:

1. **Weight Gain Creeps In:** Remember the days when you could devour anything without worrying about the scale? Well, your metabolism isn't as forgiving in your 20s and 30s. Combine that with a diet laden with processed foods and minimal physical activity, and you might find those extra pounds stealthily creeping onto your frame.
2. **Energy Levels Plummet:** Burning the candle at both ends might seem exhilarating initially, but it exacts a toll on your vitality. Sooner or later, you'll notice yourself feeling perpetually drained and sluggish, struggling to keep pace with the demands of daily life.
3. **Risks of Chronic Ailments Mount:** Heart disease, diabetes, hypertension – these aren't just ailments reserved for the elderly. Neglecting your health in your younger years sets the stage for these insidious conditions to rear their heads prematurely.
4. **Mental Health Takes a Hit:** The pressures of early adulthood – be it career anxieties or financial stressors – can gnaw away at your mental well-being. Ignoring your psychological health now can pave the way for anxiety, depression, and other mental health maladies in the future.

So, what's the antidote to these aftereffects of taking your health for granted?

1. **Mindful Eating:** Opt for a diet rich in fruits, vegetables, and whole grains while curbing your intake of processed foods, sugary treats, and excessive alcohol.
2. **Stay Active:** Discover physical activities that resonate with you – whether it's jogging in the park, hitting the gym, or busting a move in a dance class. Aim for at least 30 minutes of exercise most days of the week.
3. **Prioritize Sleep:** Make sleep a non-negotiable priority, aiming for 7-9 hours of quality rest each night. Your body rejuvenates during sleep, and skimping on it deprives you of vital recuperation.
4. **Nurture Your Mental Well-being:** Don't hesitate to seek support if you're grappling with emotional turbulence. Whether it's confiding in a friend, consulting a therapist, or embracing mindfulness practices, prioritize your psychological equilibrium.

In essence, your health is an invaluable asset that deserves your utmost attention. Don't postpone caring for it until you're confronted with dire health challenges. By embracing healthy choices today, you're laying a resilient foundation for a vibrant and fulfilling future. Remember, investing in your health now pays dividends in the long run, ensuring that you can continue to enjoy life's adventures to the fullest extent possible.



Research on

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Punchy Conclusion

Out line of the topic

Stonks 5/7

No new one



Women in Space Technology and Research: A Survey

Suramya Dinkar¹, Preet Shukla², Archana
Verma³

¹suramyadinkar@gmail.com

²preetshukla07@gmail.com

³archanalsr@gmail.com

Department of Statistics, Mata Sundri
College for Women, University of Delhi
Rashmi Verma⁴

⁴rashmi710@gmail.com

Department of Mathematics, Mata Sundri
College for Women, University of Delhi,
Delhi



Women in Space Technology and Research: A Survey

Abstract

Since its inception in the 1950s, space technology and research has been historically dominated by men leading to under-representation and marginalization of women in this field. However in recent decades, there has been a gradual recognition of the crucial role that women play in space research and technology and their contributions have been acknowledged widely across the globe. The purpose of this research paper is to investigate the underrepresentation of women and the challenges faced by them in this field. Further, the achievements of women and an analysis of the current state of gender diversity in the field of space technology and research have been presented.

This paper employs a mixed-methods approach, combining a comprehensive literature review with a survey of women working in the space technology and research sector. The survey aims to gather data on the barriers faced by women, the support and resources available to women, and the gender diversity in the field of Space Technology and Technology. The survey data will be analyzed using descriptive statistics to provide a deeper understanding of the issues faced by women in this field and to gather knowledge on the current state of gender equality in the industry.

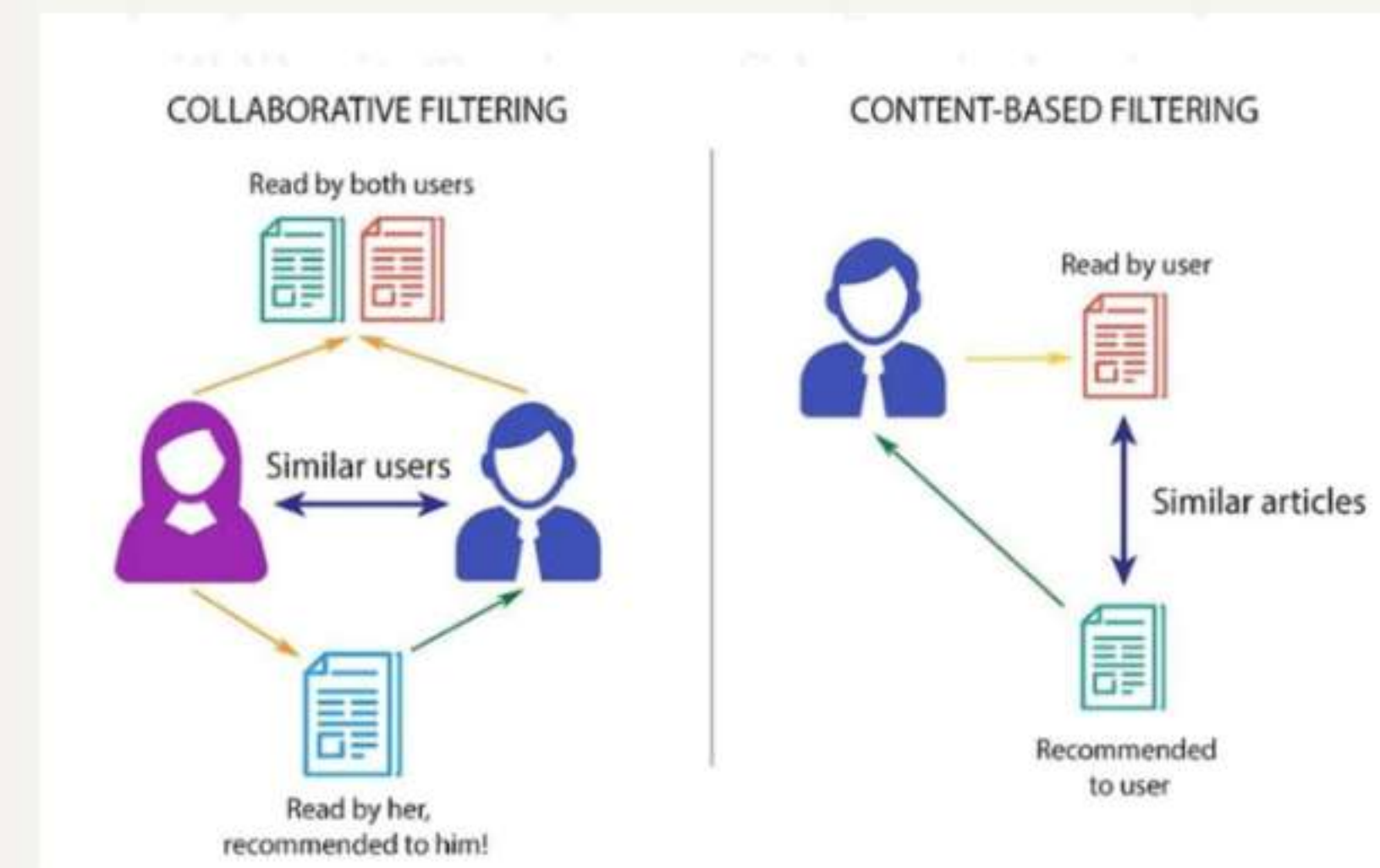
Keywords: Space Technology, Gender Diversity, Descriptive Statistics

Utilising Algorithms in Recommendation Systems: An In depth Exploration

Authors: Jigyasa Khurana, Mehak Gupta, Harshita Dudeja, Diya Gandhi, Dr. Archana Verma
Department of Statistics, University Of Delhi

A recommendation system is a data filtering engine that combines deep learning concepts and algorithms to recommend potential products that correspond to a user's preferences. The recommendation systems have become an integral part of our digital lives, providing content and suggestions across various platforms. This research paper focuses on the essential aspects of the functioning of these recommendation systems by the usage of algorithms, different filtering techniques etc.

The significance of recommendation systems in enhancing user experience and engagement, highlighting their importance in modern online platforms has been established. The paper analyses the different filtering techniques along with the help of illustrations from different platforms. Furthermore, the study investigates the phases of the recommendation system, from data collection and Preprocessing to model training, offering a comprehensive understanding of the system's inner workings. A critical assessment of the disadvantages and advantages of the recommendation systems is presented, addressing issues of privacy, filter bubbles as well as the potential benefits in terms of uses of satisfaction and business profitability. A hypothetical example is also demonstrated to help readers know how algorithms can create personalised recommendations in real life scenarios. Overall, this research paper offers a deep understanding on how the inside of these recommendation system works.



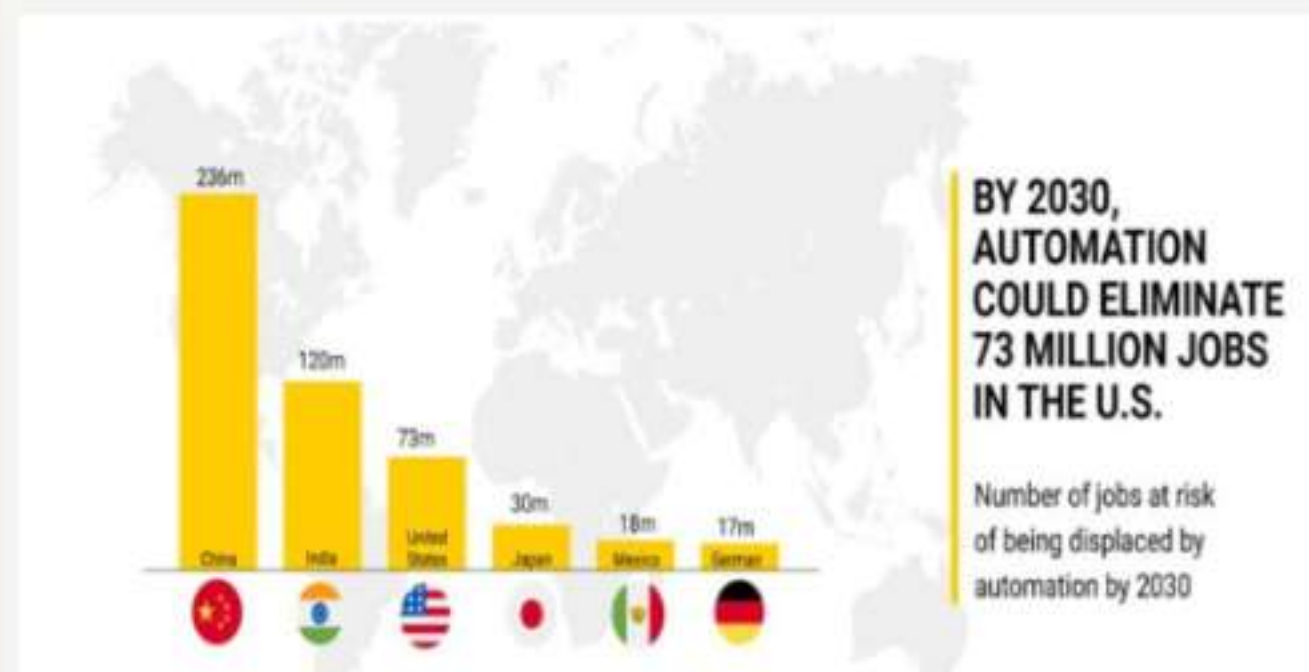
The Impact of Artificial Intelligence on Employment: A Comprehensive Study

**38% of companies already use
AI in some capacity**



Gurleen Kaur - gurleenkaurhora2401@gmail.com
Vanisha Mathur - vanishamathur3@gmail.com
Archana Verma - archanalsr@gmail.com

Department of Statistics, Mata Sundri College for
Women, University of Delhi



Abstract

Since its inception in the 1950s, space technology and research has been historically dominated by men leading to under-representation and marginalization of women in this field. However in recent decades, there has been a gradual recognition of the crucial role that women play in space research and technology and their contributions have been acknowledged widely across the globe. The purpose of this research paper is to investigate the underrepresentation of women and the challenges faced by them in this field. Further, the achievements of women and an analysis of the current state of gender diversity in the field of space technology and research have been presented. This paper employs a mixed-methods approach, combining a comprehensive literature review with a survey of women working in the space technology and research sector. The survey aims to gather data on the barriers faced by women, the support and resources available to women, and the gender diversity in the field of Space Technology and Technology. The survey data will be analyzed using descriptive statistics to provide a deeper understanding of the issues faced by women in this field and to gather knowledge on the current state of gender equality in the industry.

Keywords: Space Technology, Gender Diversity, Descriptive Statistics

Role of critical Minerals in the Indian Semiconductor Industry

Suramya Dinkar¹, Preet Shukla²
Archana Verma³, Rashmi Verma⁴
1suramyadinkar@gmail.com,
2preetshukla07@gmail.com
3archanalsr@gmail.com,
4rashmiv710@gmail.com

Department of Statistics and Department
of Mathematics, Mata Sundri College for
Women, University of Delhi, Delhi, India



Abstract

The semiconductor business is a pillar of contemporary technological progress, contributing significantly to the electronics, telecommunications, and automotive industries, among others. The accessibility and security of important minerals have emerged as key determinants of the future of the sector as India works to position itself as a global chip manufacturing hub. The complex relationship between essential minerals and the Indian semiconductor industry is examined in this abstract.

The rapid expansion of the digital economy, the proliferation of linked gadgets, and the growing emphasis on home manufacture through programmes like "Make in India" have all contributed to a considerable increase in semiconductor demand in India in recent years. However, the production of semiconductors is largely dependent on a number of vital minerals, including gallium, germanium, silicon and rare earth elements.

Keywords: Germanium & Gallium (Critical Minerals), Semiconductors

Polycystic Ovary Syndrome (PCOS) and Female Infertility

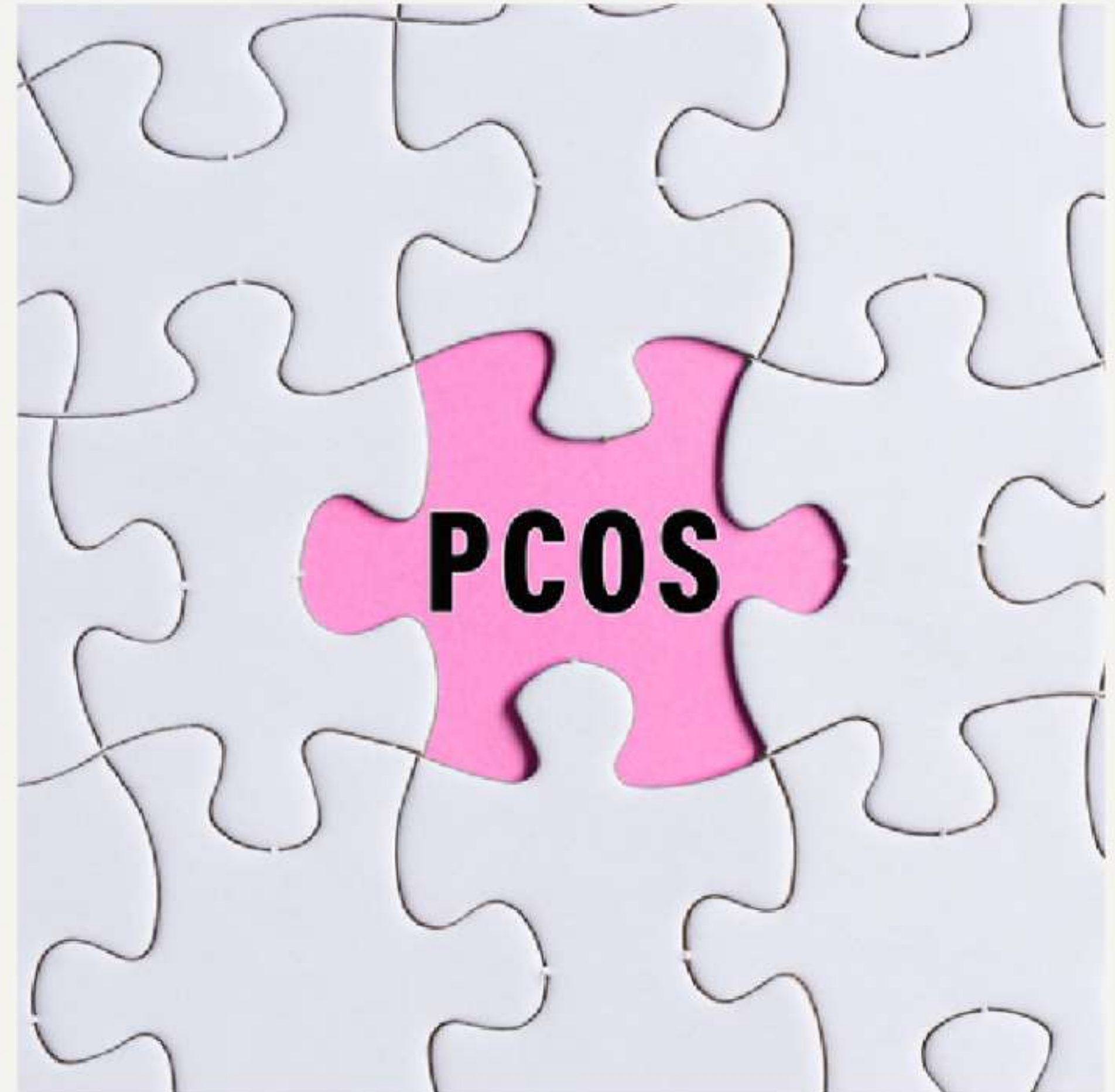
**Authors: Sakshi Garg Shivani Agrawal,
Dr. Komal Goel and Dr. Meenu Goel
Department of Statistics, University Of Delhi**

One common endocrine disorder that affects women in their reproductive years is called polycystic ovary syndrome (PCOS), and it has a variety of effects on both physical and mental health. This academic paper provides a thorough analysis of PCOS, covering all of its facets that cross over into the fields of endocrinology, metabolism, and reproduction. By means of a systematic review of the literature and the incorporation of empirical data, this work clarifies the intricate relationship between genetic predispositions, hormone dysregulation, environmental triggers, and lifestyle choices that ultimately lead to the development and clinical manifestation of polycystic ovary syndrome (PCOS).

Additionally, this work outlines the variety of clinical presentations linked to polycystic ovary syndrome (PCOS), encompassing reproductive disorders such oligomenorrhea and an ovulatory.

In this study, we investigate Polycystic Ovary Syndrome (PCOS) and Female Infertility

using a dataset of 258 samples collected from a survey. By analyzing this extensive dataset, we aim to the effect of Polycystic Ovary Syndrome (PCOS) on women reproduction health .





CAREER MANIA

What To Pursue After BSc Statistics Hons.?



A degree in statistics is like having a master key that can unlock numerous career paths. If you love delving into data to uncover patterns and insights, pursuing a Master's in Data Science, perhaps through the IIT JAM program, could be an excellent fit. Alternatively, if you're intrigued by assessing and managing risks, diving into the world of Actuarial exams could be your calling.

On the other hand, if you're drawn to the intersection of statistics and business, an MBA could provide you with a well-rounded understanding of how data drives decision-making in various industries.

For those inclined towards research-oriented roles, exploring MSc programs through CUET PG can offer opportunities to delve deeper into statistical methodologies and their applications.

Ultimately, the key lies in aligning your skills and passions. Whether it's problem-solving, effective communication, or a specific industry that excites you, leveraging your statistical expertise can pave the way for a fulfilling career journey tailored to your interests and aspirations.



CAREER PORTFOLIO

MBA

An MBA, or Master of Business Administration, is a postgraduate degree that equips students with advanced business management skills, strategic thinking, and leadership acumen. It offers specialized knowledge in areas such as finance, marketing, operations, and entrepreneurship, preparing graduates for diverse career opportunities in the corporate world.

CUET PG

CUET PG (Common University Entrance Test for Post-Graduate) serves as a centralized examination for admission into various postgraduate programs across India, including MSc in Statistics. This standardized approach ensures fairness and reduces the burden on students by eliminating the need for multiple entrance exams.

IIT JAM

IIT JAM (Joint Admission Test for Masters) is an entrance exam conducted for admission to postgraduate programs in science at the Indian Institutes of Technology (IITs). It evaluates candidates' understanding of various science disciplines, including physics, chemistry, mathematics, biotechnology, and more.

ACTURIAL

Actuarial exams are rigorous assessments designed to evaluate candidates' proficiency in mathematical, statistical, and financial concepts related to risk management and insurance. These exams are conducted by professional bodies like the Institute of Actuaries of India (IAI) and require thorough preparation to achieve certification as an actuary.

STUDY ABROAD

Studying abroad entails pursuing education in a foreign country, offering a rich cultural experience, language immersion, and exposure to diverse academic perspectives and global networks. It provides a unique opportunity for personal growth, intercultural understanding, and enhancing career prospects on a global scale.

CAREER PORTFOLIO

01 CUET PG

CUET PG (Common University Entrance Test for Post-Graduate) serves as a centralized examination for admission into various postgraduate programs across India, including MSc in Statistics. This standardized approach ensures fairness and reduces the burden on students by eliminating the need for multiple entrance exams.

The eligibility criteria for CUET PG require candidates to possess a bachelor's degree from a recognized university, with no age restrictions. The exam pattern for MSc in Statistics now comprises a single domain-specific test lasting 1 hour and 45 minutes, focusing solely on the subject of Statistics. The test consists of 75 questions and is worth 300 marks. It assesses candidates' knowledge in probability theory, statistical methods, linear algebra, calculus, and data analysis.



CUET PG



Preparation for CUET PG necessitates a structured approach, starting with understanding the exam pattern and thoroughly analyzing the syllabus. Candidates should gather quality study material, create a realistic study schedule, and engage in regular practice sessions. Mock tests play a crucial role in familiarizing candidates with the exam environment and identifying areas for improvement.

Popular books for MSc Statistics preparation include "Fundamentals of Mathematical Statistics" by S.C. Gupta and V.K. Kapoor, "Introduction to the Theory of Statistics" by Alexander Mood et al., "Statistical Methods for Data Analysis" by George A. Wenders, "Data Analysis Using R" by Harvey Miller, and "Python for Data Analysis" by Wes McKinney.

Overall, CUET PG offers candidates a streamlined pathway to pursue their postgraduate studies, opening doors to a diverse range of universities and programs across India.

02 IIT JAM



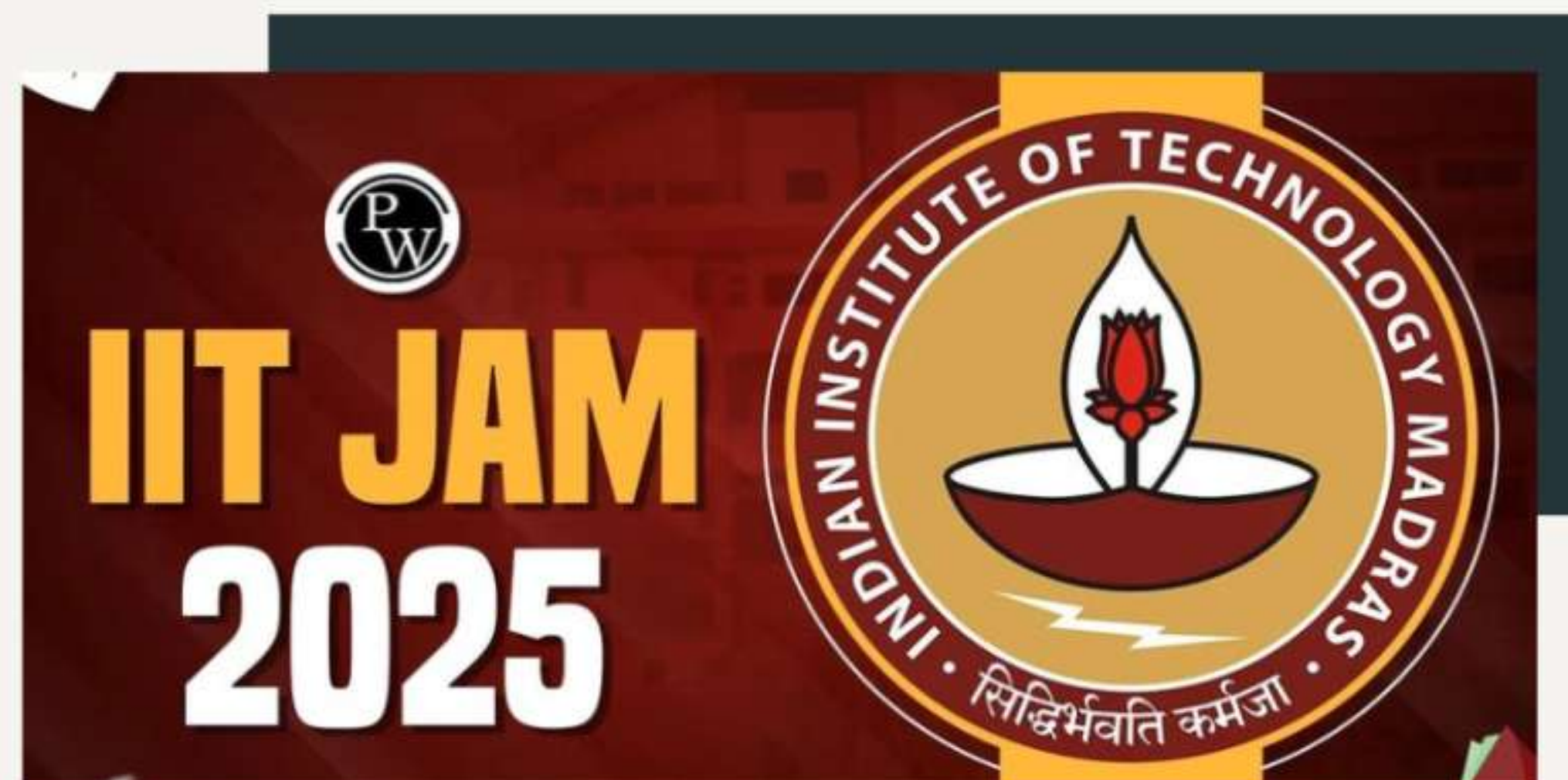
IIT JAM (Joint Admission Test for M.Sc.) is an entrance examination conducted by prestigious institutions like the Indian Institutes of Technology and the Indian Institute of Science. It is designed for students interested in pursuing postgraduate programs in science-related fields, such as M.Sc., Joint M.Sc.-Ph.D., and M.Sc.-Ph.D. dual degree courses offered at IITs and IISc. The exam is renowned for its rigorous selection process, ensuring that only the best students are accepted.

For the Statistics (ST) paper of IIT JAM, the exam pattern includes multiple-choice questions (MCQs), multiple-select questions (MSQs), and numerical answer type (NAT) questions. The topics covered assess candidates' understanding of undergraduate-level Statistics concepts, including probability, statistical methods, inference and estimation, linear models, and probability distributions. Emphasis is placed on analytical and problem-solving abilities in Statistics.

Effective preparation for IIT JAM requires understanding the syllabus, utilizing appropriate study materials, practicing regularly with previous years' question papers, seeking guidance from mentors or coaching classes, and managing time effectively with a well-structured study schedule.

Popular books recommended for IIT JAM Statistics preparation include "Mathematical Statistics" by John E. Freund and Miller I. Miller, "An Introduction to Probability Theory and Its Applications" by William Feller, and "Introduction to Probability Models" by Sheldon M. Ross. These books provide comprehensive coverage of probability theory, mathematical statistics, and probability models, catering to both beginner and advanced learners.

In summary, IIT JAM is a prestigious exam offering an excellent pathway for individuals aspiring to pursue postgraduate studies in science-related fields. Effective preparation with the right resources and strategies can help candidates succeed in the exam and secure admission to top institutions in India.



03 MBA

Pursuing a Master of Business Administration (MBA) has become a popular choice for individuals looking to enhance their career opportunities and develop their managerial skills. In India, admission to reputed MBA programs is highly competitive and primarily determined through various entrance exams. Among these, the Common Admission Test (CAT) holds a significant position, alongside several other prominent exams. This page offers an overview of CAT and similar MBA entrance exams in India, including eligibility criteria and syllabus details.

1. Common Admission Test (CAT):

Eligibility Criteria:

- Candidates must hold a Bachelor's degree with at least 50% marks or equivalent CGPA (45% for SC, ST, and PwD categories) from a recognized university or institution.
- Final year students are also eligible to apply, provided they complete their degree requirements within the specified time.

Syllabus:

- Quantitative Ability (QA): Topics include arithmetic, algebra, geometry, mensuration, trigonometry, and number systems.
- Data Interpretation & Logical Reasoning (DILR): This section tests the candidate's ability to analyze data and make logical deductions.
- Verbal Ability & Reading Comprehension (VARC): It includes reading comprehension passages, grammar, vocabulary, sentence completion, and critical reasoning.

2. Xavier Aptitude Test (XAT):

Eligibility Criteria:

- Candidates must possess a Bachelor's degree in any discipline from a recognized university or institution.
- Final year students are also eligible to apply.



Syllabus:

- Verbal and Logical Ability: Topics cover reading comprehension, grammar, vocabulary, verbal reasoning, and critical reasoning.
- Decision Making: This section assesses the candidate's ability to analyze situations and make sound decisions.
- Quantitative Ability & Data Interpretation: Questions revolve around arithmetic, algebra, geometry, data interpretation, and logical reasoning.

3. Management Aptitude Test (MAT):

Eligibility Criteria:

- Candidates must have completed a Bachelor's degree in any discipline from a recognized university or institution.
- There is no minimum aggregate percentage requirement.

Syllabus:

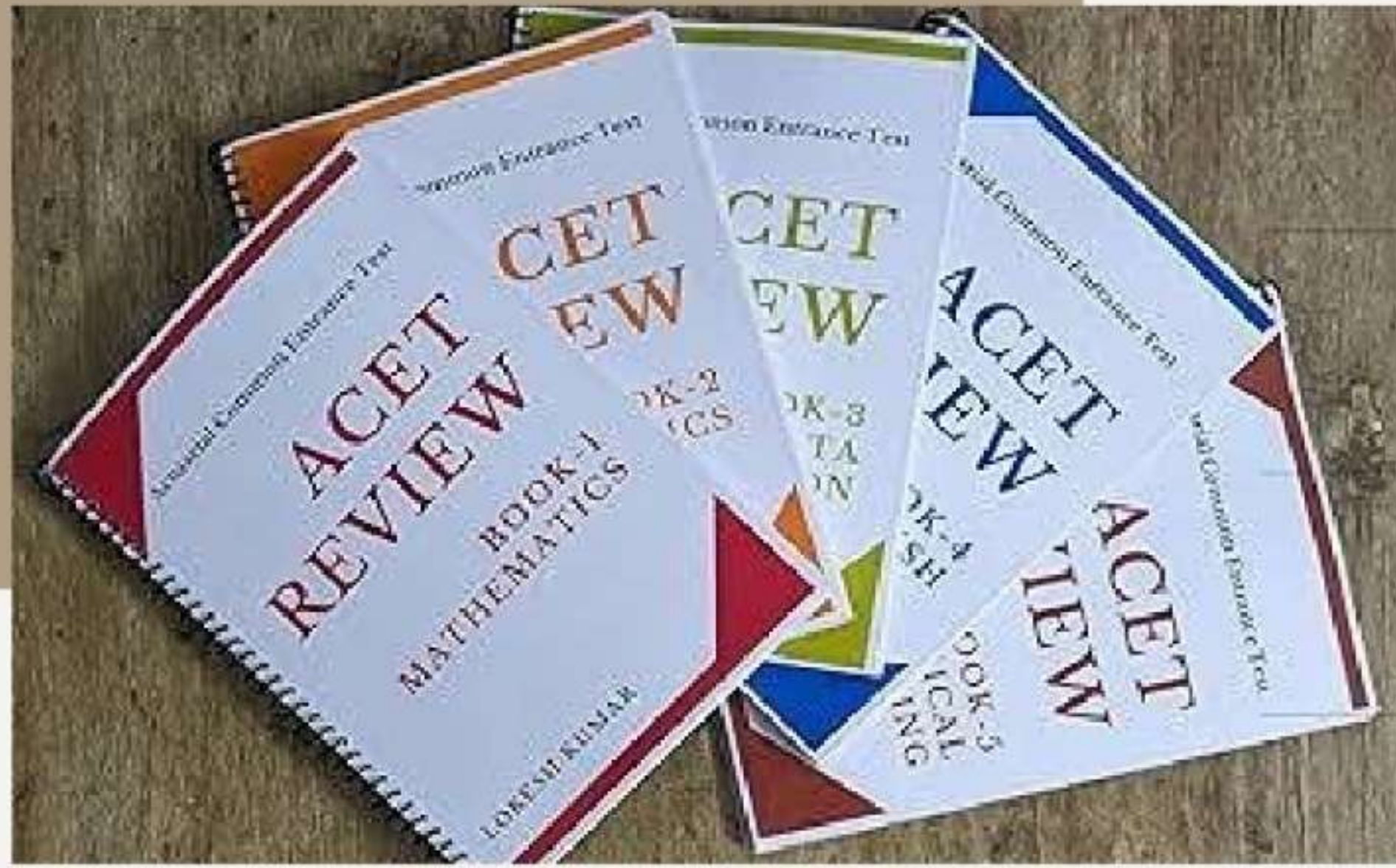
- Language Comprehension: This section tests English language skills including grammar, vocabulary, and comprehension.
- Mathematical Skills: Topics include arithmetic, algebra, geometry, and trigonometry.
- Data Analysis & Sufficiency: Questions involve interpretation and analysis of data sets.
- Intelligence & Critical Reasoning: It assesses the candidate's ability to analyze situations and draw conclusions.

04 ACTUARIAL SCIENCE

Preparation for ACET involves understanding the exam structure, analyzing the syllabus, gathering study materials, creating a study plan, practicing regularly, taking mock exams, staying updated with changes, and seeking guidance when needed.

Recommended books for preparation include "TOMATO" for mathematics, "Quantitative Aptitude for Competitive Examinations" by Abhijit Guha, "How to Prepare for Quantitative Aptitude for the CAT" by Arun Sharma, "Verbal Ability and Reading Comprehension" by Arun Sharma, and "Trishna's Data Interpretation and Logical Reasoning for the CAT and other MBA Entrance Examinations" for verbal ability and data interpretation.

In summary, ACET serves as a gateway for individuals interested in embarking on a career in actuarial science, providing a standardized assessment of their skills and knowledge essential for success in the field.



ACET (Actuarial Common Entrance Test) is an entrance exam conducted by the Institute of Actuaries of India (IAI) for individuals aspiring to pursue a career in actuarial science. It evaluates candidates' mathematical, statistical, analytical aptitude, and English language skills to assess their readiness for the actuarial profession.

Eligibility for ACET is broad, with no specific educational background required. Candidates need not have prior actuarial knowledge, and there's no minimum age requirement. The exam assesses candidates' proficiency in mathematics, statistics, data interpretation, English language, and logical reasoning.

The exam pattern includes multiple-choice questions (MCQs) across sections like Mathematics, Statistics, Data Interpretation, English Language Skills, and Logical Reasoning. The total number of questions varies, and there may be negative marking for incorrect answers.



ACET

05 STUDY ABROAD

Migrating to a different country to pursue your education is a laudable achievement, one that takes immense courage and determination. This section is meant to offer a brief outline of the steps one should take in order to make their study abroad transition easier.

1) Take your time to research well in advance – The application process of most foreign universities is a grueling one. It is crucial that you check the ranking, tuition fees, scholarships etc. and identify the universities that are your top targets. It is advisable to apply to some universities ranking below your top targets as a plan-B.

2) Apply earlier – It is always best to apply as early as possible since most foreign universities operate on a first come first serve basis. In case you have some trouble with filling out your applications it can be helpful to use some free study abroad consultants like IDP, QS, Leap Scholar etc.

3) Prepare a document checklist – For most universities there is a standard document checklist, this includes, a copy of your passport, a copy of your marksheet, a letter of recommendation (can be given by any of your teachers) and a statement of purpose. While applying, it is not necessary to have a transcript, a copy of your marksheet will suffice. However, a transcript may be required later in case you get accepted.

4) Double check your application – Even if you are taking the help of a study abroad consultant it is imperative to verify your application yourself before submitting to avoid any blunders.

5) Regularly track your application – After submission, you will be assigned credentials for an applicant portal which will display the status of your application. Most universities use the applicant portal to convey information even before they send an e-mail.



Lastly, it is important to remember that moving abroad means that all daily tasks will now be solely your responsibility. Safety is something that cannot be compromised; hence, your research must include factors like overall lifestyle, average income, crime rate of the area you plan to move to. Moreover, it should be a personally fulfilling experience rather than just an academic one, be sure to make the most of your time abroad.



BATCH 2021-24

"Joy is not in things; it is in us."



Revanshi Vohra

Even miracles take a little time. In life's ballet, where dreams intertwine



Jigyasa Khurana

Let your FAITH be bigger than your FEAR.



Gurleen Kaur

In a world where you can be anything, Be Kind



Bismanjyot Kaur

The key of communication only works if the lock isn't defective



Lakshika Grover

Embrace the beauty of your soul, for it is the masterpiece that truly defines your essence.



Sakshi Garg

This place is the Toby to my Michael!



Kanishka Aggarwal

you didn't go through all that for nothing



Suhani Arora

Attachment sirf gmail tk rkho



Simran Sharma

You get what you WORK for not what you WISH for



Simarjeet Kaur

The only thing that will make you happy is being happy with who you are



Iti Gupta

I've learned from the bad times and was humbled by the good. Thank you for all of the great life lessons.



Suhani Kalra

Nobody here knows the real you. Only you know it!



Pavani Verma

Don't sweat the small stuff and it's all small stuff



Vaishnavi Dhingra

Never regret for having a kind heart.



Khushi Pandey

Love the life you live, Live the life you love.



Pooja Negi

It's not about becoming the best. It all comes down to efforts.



Jasdeep Kaur

stupid things have good outcomes all the time



Mauli Saxena

What good are wings without the courage to fly



Parakh

Spread love everywhere you go... ❤️



Himanshi

Even the darkest night will end and the sun will rise.



Deeksha Gupta

Proof that even rebels can follow a graduation ceremony!



Priyadeep Kaur

Tears are not the mark of weakness, but of power



Mahi Sharma

Our efforts along the journey will keep us motivated.



Diya Gandhi

Well done is better than well said ...



Vanshika Garg

It does not do well to dwell on dreams and forget to live



Kajal

You're doing better than you think you are.



Gurleen Kaur

Hello from the other side



Divjot Kaur

Spread love everywhere you go.



Niharika Garg

"You have to believe in yourself when no one else does."



Ayushi

Chasing my dreams



Khushi

this due at 11:59 too?



Anushka Dwivedi

Think inside the box. That's right, I said inside. Because while everyone is chasing each other outside, what is the box? Empty. ~ Phil Dunphy



Gurleen Kaur

Even miracles take a little time.



Shivani Agrawal

The future belongs to those who believe in the beauty of their dreams.



Manmeet Kaur

i only understand about 20% of what goes on around here



Jannat Vij

I'm sick of following my dreams, man. I'm just going to ask where they're going and hook up with 'em later.



Ketki Aggarwal

Woefully unprepared.



Lavanya Chauhan

See you all at the 10 year reunion! (Hopefully)



Yakshi Goel

Allegedly Intellectual + She thinks she's written by Jane Austen + Indecisive clearly



Aditi Bisht

Spreading smiles 🌟



Garima Choudhary

Dream with your eyes open...



Mehak Gupta

Believe in the contour of life 🌸



Simrandeep Kaur

"There was is no path to happiness; happiness is the path."



Vanshika Goyal

the only impossible journey is the one you never begin.



Tina Gupta

We are who
we chose to
be



Suramya
Dinkar

Beginning, in
middle and
hopefully an
end.



Sanskriti
Kandpal

It's all lies,
darling. 🍷



Amanjot
Kaur

Don't bother
the
weaklings,
focus on me



Vanisha
Mathur

your patience
is your power



Ananya Puri

You have to
believe in
yourself
when no one
else does.



Vaishali Joshi

Make yourself a
priority, there
is no love like
your own



Harshita Dudeja

Embrace the
glorious mess
that you are.



Vriti Aneja

Embrace the
glorious mess
that you are.



Shruti Rawat

Embrace the
glorious mess
that you are.



Riya Batra

Nothing will
work unless
you do!



Navya Arora

Intelligence
plus
character
that is the
goal of the
true
education...!!



Aditi Gupta

Swimming
like there's no
tomorrow



Meghna

If you're always
telling yourself
how lucky you
are, it's probably
because you're
afraid to ask
yourself how
happy you are.



Preet Shukla

You don't get
what you
wish for. You
will get what
you work for



Kritika Sharma

Don't take
anything
serious
unless you
are at
hospital



Tanya



BATCH 2022-26



Aakanksha Sinha



Adhya Mehrotra



Gifty Kalra



Kriti Sharma



Himanshi
Saxena



Kiran



Parul Segan



Niharika Gandhi



Niyaz Kaushika



Paridhi Singhania



Priya Mehrotra



Priyanshi Kalra



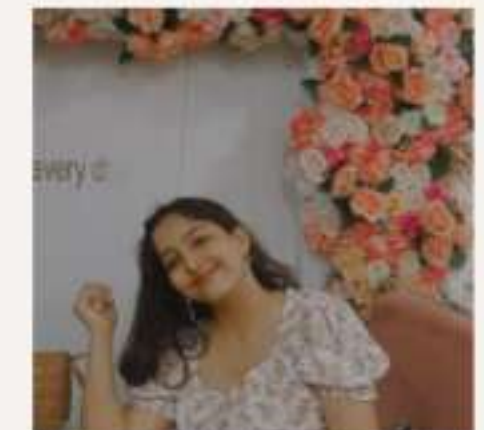
Pulkita Aggarwal



Rageshree Dey



Reet Kaur



Rupanshi



Sakshi Tyagi



Sandhya Yadav



Sanya Aggarwal



Shambhavi
Verma



Srishti Gupta



Tanisha Tiwari



Vanshika Kathpal



Vrinda Ahuja



Yashita



Yashika Lohia



Ridhi Bhatt



Janvi Manav



Nainy Aggarwal



Sakshi Kumari



Nancy Thakur



Aarchi Bansal



Anshu Bachhawat



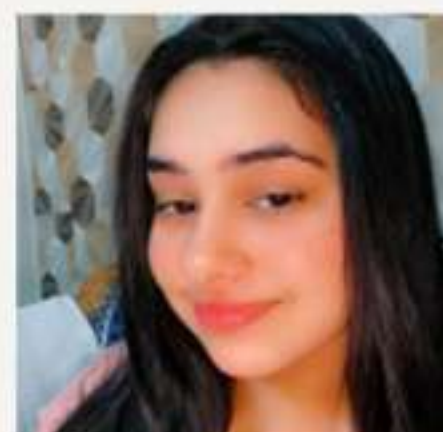
Palak



Sakshi Tiwari



Priya Kumari



Harshita Arora



Yashika Goyal



Monika Nagarkoti

BATCH 2023-27



Aadya Sharma



Aafia Saqib



Akshita Mahana



Anannya Saxena



Ananya Negi



Arpita Jain



Anvesha Rangeela



Charvi Singh



Chetna Tohan



Devanshi Gupta



Gunika Vasdev



Harshita Bhardwaj



Harshita Mehta



Kanak Aggarwal



Karman Kaur
Ratra



Kashish Thakuri



Kashvi Sethi



Khushboo Agarwal



Khushi Baliyan



Khyati Sethia



Khushi Chawla



Kushi Singhal



Maanushi Gupta



Muskan Munjal



Navya Kaushik



Prachi Panwar



Pratishtha



Priya Gupta



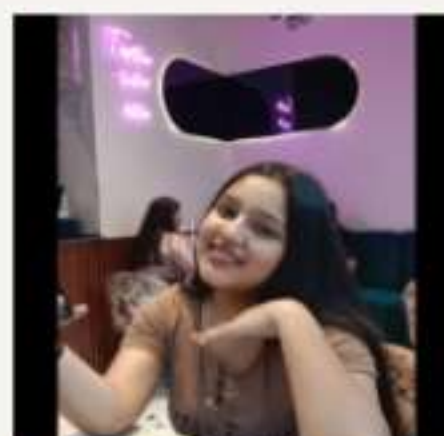
Swanti Kaur



Tanisha Malik



Vrinda Garg



Yukti Bhalla



Sanya Gairola



Sabiha Iram



Shryasee Ghosh



Shelli Sharma



Lakshita Gupta



Kashish Kapoor



Jahnvi



Anvi Bharadwaj

ACHIEVEMENTS



COMPETITION

- Suramya Dinkar and Preet Shukla: Best paper presentation in ICMA 2024
- The statistics department helped in the organization of Bani Kirtan 2023.
- Simrandeep Kaur:
 1. Best Instrument Player along with a cash prize certificate and a trophy.
 2. Guru Gobind Singh College of commerce: The Kirtan Competition was held on 1st February 2024 in which our team received a consolation prize.
 - Khushi Pandey: VCIS internship (June - July 2023)
 - Pooja Negi:
 1. IIT Delhi Memefest winner Feb 2023 (1st position)
 2. IIT Delhi Memefest winner Oct 2023 (2nd position)
 3. Data Dashboard Hackathon 1.0 by Growthschool winner Nov 2023 (1st position)
 - Iti Gupta: Secured the 2nd position in Kho-Kho at IGNITE, the Annual Sports Fest organized by IGDTUW on February 20th, 2024. The team received silver medals, certificates of excellence, and a cash prize of Rs 5000 collectively for the 11 players.

SOCIETY HEADS

- Yakshi Goel- Secretary of Prayas, the Placement Cell
- Shruti Rawat - Secretary of Pratibimb, the Film Society
- Aditi Bisht - Treasurer of NSS, the National Service Scheme Society
- Jigyasa Khurana - Vice President of Arthavrishti, the Economics Society
- Mahi Sharma - Vice President, Devbhoomi Society
- Deeksha Gupta - Secretary, Devbhoomi Society

ALL ROUNDER BEST STUDENT



Preet Shukla from 3rd year was awarded the all rounder best student award from the college on the annual day.

PRESIDENT'S CORNER



Suramya
Dinkar
President of
Statistika



Vanisha
Mathur
President of
Prayas



Preet
Shukla
President of NSS
& Kala



Sanskriti
Kandpal
President of
LPC



Simrandeep
Kaur
President of
Divinity



Vaishali
Joshi
President of
Devbhoomi



Deeksha
Gupta
Deputy President
of Arthavrishti

From President's Desk

Hey, people!

Well, that's it for me as the head of the Statistics department. I am leaving with a whole bunch of feelings, you know. I am gonna miss this amazing place where I got to be the leader, but I am also super thankful for the time we all spent together.

Each one of you has played a part in making Statistika not just a department, but a family—a family that's bonded by our love for statistics and our common goal of learning more. We had a blast celebrating our wins, overcoming obstacles, and making lifelong friendships.

Just thinking about our time together makes me so proud of everything we have achieved. research, support, and world of statistics.

I believe in this community and what it can achieve. I am sure Statistika will keep doing great things, come up with new stuff, and motivate everyone, no matter who's in charge.

Thanks a lot, from the bottom of my heart, for letting me be your President. You've all made a huge impact on my life, and I'll always remember the good times we had.

As I leave, I wish you all the best for the future. Keep chasing your dreams with guts, love, and total dedication.

With a heart full of thankfulness,

Suramya Dinkar
President, Statistika, Department of Statistics





इबारेहोपौरा

Mata Sundri College for Women
UNIVERSITY OF DELHI

Mata Sundri Lane, New Delhi - 110002

 matasundricollege.du@gmail.com

 [@mscwduofficial](https://www.instagram.com/mscwduofficial)

 statisticsmatasundricollege@gmail.com

 [@statistika.mscw](https://www.instagram.com/statistika.mscw)

Compiled by Department of Statistics