2021-22

YEAR AT GLANCE

- Inquizitors
- Discussion Forum
- SciVerse
- Social Media Campaigns
- National Science Day

INQUIZITORS

INQUIZITORS-12

Ananta – The Science Society conducted "INQUIZITORS-XII" under the online quiz series on the topic "Environment and Technologies". The quiz was conducted on 20th of September 2021, Monday on Instagram and Google Forms from 6-7 pm.
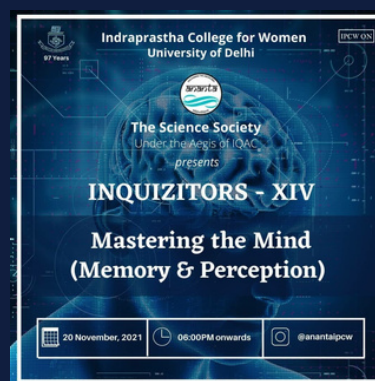

INQUIZITORS-13

Ananta – The Science Society conducted "INQUIZITORS-XIII" under the online quiz series on the topic "Space Science and Memory Technology". The quiz was conducted on 16 October 2021, Saturday on Instagram and Google Forms from 6-7 pm.

INQUIZITORS

INQUIZITORS-14

Ananta – The Science Society conducted "INQUIZITORS-XIV" under the online quiz series on the topic "MASTERING THE MIND (MEMORY AND PERCEPTION)". The quiz was conducted on 20 November 2021, Saturday on Instagram and Google Forms from 6-7 pm.
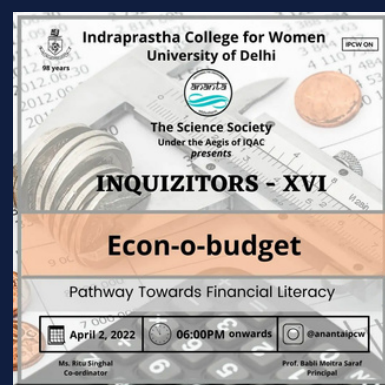

INQUIZITORS-15

Ananta – The Science Society conducted "INQUIZITORS-XV" under the online quiz series on the topic "Adolescent Development and Challenges". The quiz was conducted on 25 January 2022, Tuesday on Google Forms and Instagram from 6-7 pm

INQUIZITORS

INQUIZITORS-16

Ananta – The Science Society conducted "INQUIZITORS-XVI" under the online quiz series on the topic "Econ-o-budget". The quiz was conducted on 2 April 2022, Saturday on Instagram and Google Forms from 6-7 pm.

INQUIZITORS-17

Ananta – The Science Society conducted "INQUIZITORS-XVII" under the online quiz series on the topic "Metaverse". The quiz was conducted on 3 May, 2022, Tuesday on Google Forms and Instagram from 6-7 pm

COVID-19 AND TECHNOLOGY
Gains and Losses

The society organized a discussion forum on **'COVID-19 and Technology: Gains and Losses'**. Student coordinators of the society hosted the event. The discussion forum was open to everyone to share their experience with the pandemic. About 35 people attended the event and shared their views. The event was also attended by professors, who shared their experiences with everyone.

Initially, the team presented two documentaries on **'Changes in Technology during COVID-19 and Lockdown'**.

Some of the main points of the ideas discussed are as follows -

1. Digital Connectivity in Covid- Digital technology makes it easy to stay in touch with friends, family and work even if you are in another part of the world.
2. Time Management- Since we all are at our homes, with the help of digital technology there is no need to move from one place to another and travelling time can be saved. We can attend to everything from the comforts of our homes.
3. Technology is also playing a very crucial role in the field of medical sciences. It helped in providing online health services and updates on our devices.
4. An increase in technology leads us towards an over-competitive society which might not be healthy.
5. Technology makes travelling safer by limiting personal contact. We can detect infection through technology.
6. To find rapid solutions to fight the disease, technologists leveraged existing technologies.

Even with all these benefits, some drawbacks exist.
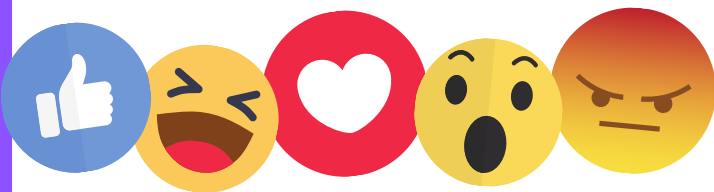These were highlighted by the discussants-

1. Online classes affect the mental health of students. Lack of concentration, increased stress, anxiety, and digital fatigue are some issues faced by students. Also, the standard of studies has degraded due to several reasons.
2. Physical health like eyesight problems, bad ergonomics, calcium, iron and vitamin deficiencies were also increasingly reported.
3. Along with physical health, mental health and socialising skills are also affected negatively. It is hard to move out of the comfort zone and confront people in the offline mode again.
4. Many students from daily-waging families, especially girls, had dropped out of their schools during the pandemic due to inaccessible technology and financial crises. They were unable to purchase electronic gadgets which affected their education.
5. Pandemic brought devastation and death which almost every family had gone through. The legacy of the pandemic is miserable and hurtful for every single citizen.

Towards the conclusion of the discussion forum, everyone shared sweet memories in pandemic and their hopes to work in offline mode again. The technological advancements made during the pandemic were also appreciated. The discussion concluded with the idea that we must remember the positives of the online mode for filling up the lack we had in the offline mode. The event wrapped up around 4.30 pm with a vote of thanks by hosts.

SOCIAL MEDIA ADDICTION

THE PSYCHOLOGICAL TRAITS OF CRAVING ACCEPTANCE THROUGH TECHNOLOGY

29 January 2022, 3:00 PM, on Google Meet

A discussion forum was organized by the society on **"Social Media Addiction"**. Under the presence of Ms Ritu Singhal, coordinator of Ananta, the discussion recorded healthy participation. It ended successfully on a positive note. Fighting addiction to anything and keeping control is in their hands. They should not let social media enslave them.

The host commenced the forum by showing the attendees two documentaries on the theme- Social Media Addiction. The first documentary was titled **'A Social Life'**, directed and written by Kerith Lemon. The main lead is Rosalind Ruth Ross. This award-winning documentary depicts a jarring distinction between social life and life on social media, how people decorate their virtual life instead of cherishing reality. Humans must always be grateful for whatever they have. It ensures peace of mind.

The second documentary, **'Percentage of Life'**, featuring Dennis Hapca conveyed the message that if people process their environment by contemplating it, observing it, and reflecting on it, they'll restore those moments better in their long-term memory.

Indraprastha College For Women
University of Delhi
IPCW ON
98 years

ananta
The Science Society
Under the Aegis of IQAC
presents

DISCUSSION FORUM

SOCIAL MEDIA ADDICTION
The psychological traits of craving acceptance through technology

JAN 29,2022 | 3:00 PM onwards on Google Meet | https://forms.gle/D8A6zLtp1hCAfGJQA

Ms. Ritu Singhal
Co-ordinator

Prof. Babli Moitra Saraf
Principal

After watching the documentaries, attendees were questioned - if any of them were addicted to social media? Few attendees answered by sharing what they've personally experienced. They shared how people's photos and videos online make them depressed and how they feel low by thinking that their life isn't as sensational as everyone else. They also felt that social media is creating a bad influence. One of the attendees raised the issue that Covid-19 pandemic is another contributing factor to social media addiction recently. Statements were put forward, such as; one attendee felt that it is pathetic to live in this fake virtual world, where people don't post their failures which misleads others. The second was how the Covid-19 pandemic brought a drastic change in their personalities, how definitions of being social changed, and how hesitant they've become now with talking to people. It is now difficult to distinguish between who is genuine and who is fake.

Further, they talked about the attention span getting reduced. Short content like Instagram reels and YouTube shorts are making youth more impatient. Instead of reading three big paragraphs, this short-form content gives three-pointers which causes a decline in focus and concentration levels. Consumers must be mindful of who they are following and what they're being fed.

Everything has both positives and negatives; influencers use these platforms to increase self-worth in youths.

Attendees also discussed how nowadays everyone is being encouraged to be their real selves and be proud of their identities. They exchanged views on how Instagram is no longer an application for sharing photographs and only a business. It is good that Instagrammers are making money out of it by showcasing a variety of talents. When the whole world was locked down, social media made it easy to reach people, and provide services.

Afterwards, the two teacher-in-charges shared an olden perspective, where Ms Meeta Virmani shared that in her adulthood, there wasn't much attachment and they didn't have easy access to social media. The age group of 13 – 25 is more prone to getting addicted to social media today than the older generations. Ms Ritu Singhal added to the earlier discussed topic that depression and loneliness are what will follow our future generation if this addiction persists.

Lastly, they pondered on how to control this negative influence. Attendees responded to the question with various solutions. For instance, addiction can be channelized into something positive. Social media is also the place where consumers get information and resources. People can develop their personalities or learn new skills. They concluded the forum on the note that one must learn to respect themselves to lead a happier and more content life. People must not let social media overrule their lives.

SCIVERSE

**THE DYNAMICS
OF KNOWLEDGE
AND LEARNING**

Deepfake
Shadow Economy
Forecasting: Understanding Weather Maps
Cyber Security
Perils of Normalizing the Overwork Culture

A WORKSHOP SERIES

SciVerse X

DEEP FAKE

26 October 2021

An online workshop on the topic Deep Fake, the 10th workshop, was conducted by the society under the series-SciVerse. The presenters conducted the workshop under the guidance of Mrs. Ritika Gulati and Mr. Rohit Bansal, faculty advisor of the Mathematics department. The event recorded an attendance of more than 55 participants.

The workshop started with the introduction to Deep Fakes. Deep Fakes are synthetic media in which a person in an existing image or video is replaced with someone else's resemblance. A video was shown in which the basic knowledge about the topic was well conveyed. The student presented his course on deep learning by replacing his video with former U.S President Barack Obama using this concept.

To interact with the audience and to help them understand the topic more comprehensively, activities were organized. The first activity includes the introduction to the Reface app. It is the app used to create Deep Fakes. Students did the activity and also shared their Deep Fakes with the team. The encoding and decoding method of creating Deep Fakes was also explained.

Deepfake content is created by using two competing AI algorithms -- one is called the generator and the other is called the discriminator. The generator, which creates the phony multimedia content, asks the discriminator to determine whether the content is real or artificial.

Together, the generator and discriminator form something called a generative adversarial network (GAN). Each time the discriminator accurately identifies content as being fabricated, it provides the generator with valuable information about how to improve the next deepfake.

Then the AI method of generating a Deep Fake was told. As there is an increasing number of frauds, spreading of rumors, and negative publicity using these, therefore, it was emphasized why there is a need to detect Deep Fakes. Some general methods were introduced to detect them. For instance, we can pay attention to the face, the cheeks, and the forehead. The second activity was conducted in which the steps to detect Deep Fakes were introduced. A link was provided through which this activity was done. The Deep Fakes created by students were also shown.

Deep Fakes have been in the news recently and it is easy to make such videos and images which triggers a great threat to authenticity. Hence, we need to be aware while making decisions and sharing. The workshop was very insightful and conducted smoothly. It was also attended by the faculty members of other departments as well. The last feedback form is also circulated. The workshop head presented the vote of thanks. They presented their heartfelt gratitude to the audience. The workshop was amazing and very well organized.

SciVerse XI

SHADOW ECONOMY

OPPORTUNITIES AND THREATS

15 November 2021, 2:50 PM, on Google Meet

The Science Society organized a workshop on "Shadow Economy – Opportunities and Threats". It was presented by the students of the Economics Department under the guidance of Ms. Gargee Sarkar, the Economics department's faculty advisor. The event recorded an attendance of 35 participants.

Professors from many departments attended the event. The presentation covered several facets of the shadow economy which are as follows:

1. Shadow Economy is difficult to quantify but refers to all the work activity and business transactions that occur 'below the radar' and thus also regarded as the informal sector, black economy, underground economy, or gray economy.
2. It is associated with various socio-economic impacts such as:

- Faith in the tax system and social norms that encourage voluntary compliance is affected.
- Increase in government and company expenditures.
- Competition gets distorted.
- Results in assisting larger illegal conduct.
- Labour exploitation.

3. It is a substantial contributor to the tax deficit in most nations. The drivers of the shadow economy are:
   - Criminal activities: White Collar Crimes, Violent Crimes.
   - Legal economic activities: Low tax morale, deterrence, opportunity, and risk of detection.
4. Examples of Shadow Economy are non-registered businesses, under-reporting of business incomes, inflation of costs, phoenix companies, cross border fraud, money laundering, employer fraud, VAT fraud, illicit trafficking, and distance selling.
5. The hosts presented three videos for a better understanding of Shadow Economy.

Video 1: It explained the structure of money laundering. Britain's drug dealing was used to explain this phenomenon. The video emphasized the existence of links (inter-connectedness) among people across different nations. The web involved Moroccan money launderers, Ambulance workers (cash collectors), an airport cleaner, money mules, gold dealers, and Mastermind (supposedly in Britain). This is done to make the origin of the transaction almost impossible to trace.

Video 2: This video showed the oxygen crisis, wailing patients, and overburdened hospitals. The adjectives mentioned above were the instances encountered during the 2nd wave of COVID-19. This incident led to the emergence of "Black Marketing During Pandemic" which witnessed hoarding of essential supplies, drugs requiring prescription procured through illicit means and 8L of oxygen cylinder was sold at Rs. 8000 much higher than standard charges.

Video 3: Showcased the operations of the North Korean black market.
Conclusion: With no price ceiling in a market-driven economy it is difficult to ascertain that the price being charged is black marketing which eventually creates more panic than actually resolving supply-side concerns. Hoarding and black marketing is a flawed logic that is often blamed for price increases in the modern commercial economy. But in reality, it can be very difficult to determine the extent to which price increases are greater than necessary and even more difficult to determine what is black marketing
The hosts organized a small quiz on the platform named "Kahoot (https://kahoot.it/)" after providing the specifications regarding the Shadow Economy. Pandora Papers, Underground economy: % of GDP, Black money: outflow from 2001-10, Money laundering, Hawala transactions formed the basis of the Quiz. The Quiz's Leader Board was dominated by Chinmay, Pragya, and Kalpana.
Presenters welcomed a variety of questions from the audience near the end of the workshop and eagerly addressed them. The workshop closed with strategies for combating the shadow economy via indirect and direct ways [(survey, tax audit) —a small part] and underlined the need for policy execution. Around 4:00 p.m, the session came to an end with a note from Ananta's society coordinator encouraging everyone to join enthusiastically in these thought-provoking activities and a vote of thanks from the workshop leaders.

SciVerse XII
FORECASTING
Understanding Weather Maps

A workshop was organized by the society on "Forecasting Understanding Weather Maps". It was presented by the Geography Department's students under the guidance of Dr. Anindita S Chaudhuri and Dr. Deshraj Meena, the faculty advisors of the Geography Department. The event recorded an attendance of 86 participants.

- The term "weather" refers to the atmospheric conditions of a place at a given time.
- Weather is the state of the atmosphere at a particular moment in time, in terms of temperature, precipitation, and moisture. One thing that affects the weather is the geography of an area. This includes the topography of the land, the latitude, vegetation cover, human impact on the land, and the proximity of bodies of water to an area.
- A weather map displays various meteorological features across a particular area at a particular point of time and has various symbols which all have specific meanings. Such maps have been in use since the mid-19th century and are used for research and weather forecasting purposes.

The event was attended by professors across the departments. Presentation being presented detailed various aspects of forecasting which are as follows:

The Map is the representation of the earth or parts of it on a plain sheet using proper scale and conventional symbols.

Importance of Maps-

- Simplify complicated information.
- Blueprint of our history.
- Help us find out the resources scattered all over the world.
- Used for trade/Commerce/Navigation
- Allow the visual representation of earth to show physical, political boundaries.
- Can calculate time.

Difference between weather and climate-

- Weather is the state of the atmosphere including temperature, humidity, cloud cover, wind, etc. Hence, Weather is a short-term atmospheric condition on a particular day of the year.

- Climate refers to long-term atmospheric changes averaged over 30 years.
- A Weather map is a map of the world or part of it showing at a stated time, the weather conditions like temperature, pressure, direction, and velocity of the wind, humidity, clouds, visibility, nature, and amount of precipitation with the help of symbols.
- Importance of Weather Maps-
  1. Severe weather alerts and advisories
  2. Prediction of waterways in a sea
  3. Predicting the behavior of the cloud for air transport
  4. Agricultural development
  5. Avoiding forest fire
  6. Military applications

History of Weather Map-
- Weather maps have been used since the mid-1800s during the Crimean War.
- The world's first weather map was created in 1961 by scientist Francis Galton who plotted data on a map after studying information from weather stations country-wide.
- This led to newspapers publishing weather maps and the development of networks to help gather and report data in real-time to enable the use of weather maps around the world
- The Indian Meteorological Department (IMD) was established in 1875, with its headquarters at Calcutta.
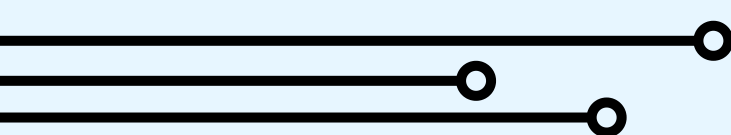
The IMD headquarters are presently located in New Delhi. IMD Pune, Publishes the weather maps.

General interpretation of weather maps-
- Pressure- Location of Bar high, Location of Bar Low, Trend of the Isobars, Pressure Gradients
- Wind- Direction, velocity, Sky condition
- Precipitation
- Temperature Departure from Normal
- Sea condition

After providing specifications regarding the Forecasting: Understanding weather and maps, the hosts held a brief quiz on the portal "Kahoot (https://kahoot.it/)". The quiz drew a total of 42 students. Simran, Pratibha, and Shreya Prasad topped the LeaderBoard of the Quiz.

Presenters welcomed a variety of questions from the audience near the end of the workshop and eagerly addressed them. The workshop was incredibly informative and went off without a hitch. There were also faculty members from other departments in attendance. The event ended around 4:00 p.m. with a note from Ms. Ritu Singhal, Ananta's society coordinator, who encouraged everyone to participate enthusiastically in these insightful activities and a vote of thanks from the workshop heads.

The Science Society organized a workshop on "**Cyber Security**" to raise awareness about cyberattacks. It was presented by students in the Computer Science Department under the direction of Ms. Ritu Singhal and Ms. Nikita Jain, the department's faculty advisors. The session drew a total of 80 people, including faculty and students from several departments.
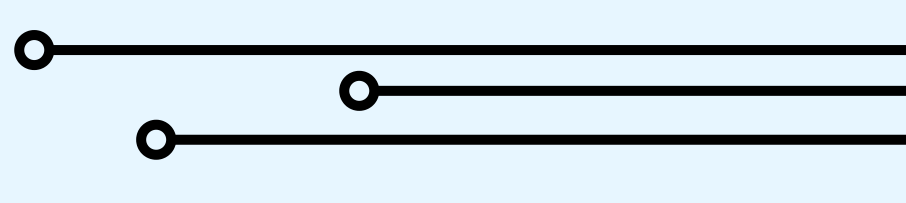
Cyber Security is a process that's designed to protect networks and devices from external threats. The main element of Cyber Security is the use of authentication mechanisms. For example, a user name identifies an account that a user wants to access, while a password is a mechanism that proves the user is who he claims to be. Today we live in a digital era where all aspects of our lives depend on the network, computers and other electronic devices, and software applications. All critical infrastructure such as the banking system, healthcare, financial institutions, governments, and manufacturing industries use devices connected to the Internet as a core part of their operations.

To enable participants:
- To be aware of cyber threats & attacks like phishing, malware and ransomware
- Preventing Cyber Crimes
- General Steps to prevent Cyber Attacks
- Social Media Safety Tips

The session started with an introduction to cyber security and made the participants aware of the concept of 'cyber threats & attacks'.
The following points were discussed on the same:
- The usage of authentication systems is a key component of Cyber Security.
- Cyber threats are a major concern. Electrical blackouts, failure of military equipment, and breaches of national security secrets are all possible outcomes of cyber strikes. They can lead to the theft of important and sensitive information.

- Developing cyber security policies is one of the most popular approaches to protect against cyber threats. Security awareness training will be implemented. Anti-spam and anti-malware software should be installed.
- Never give out sensitive personal information, such as your bank account information. Never reveal your passwords or any information that could lead to them, such as your pet's name or date of birth. Never jeopardize the privacy of people with whom you've exchanged information. Developing cyber security policies is one of the most popular approaches to protect against cyber threats. Security awareness training will be implemented. Anti-spam and anti-malware software should be installed.

Later, a quiz was organized using software named "Kahoot". The participants attempted to answer the questions correctly about the cyberattacks against the system, network, and technologies by reducing unauthorized exploitation, vulnerability, and threats.

The presenters welcomed a range of audience's questions and promptly answered them. The webinar concluded that one of the most crucial parts of the fast-paced, ever-changing digital world is cyber security. Its threats are difficult to dismiss, therefore learning how to guard against them and teaching others how to do so is critical.

The session concluded at about 5:00 p.m. with a note from Ananta's society coordinator, encouraging everyone to participate heartily in these thought-provoking activities as well as a vote of thanks from the workshop heads.

PERILS OF NORMALIZING THE OVERWORK CULTURE

Exploring psychological implications and coping startegies

The society hosted an online workshop on the topic Perils of Normalizing the Overwork Culture: Exploring Psychological Implications and Coping strategies. It was the 16th workshop conducted by the society under the series SciVerse. The presenters conducted the workshop under the guidance of Ms. Supreet Kaur Bhasin and Ms. Monali Sharma, faculty advisors of the psychology department. The workshop saw participation from 30 students from various departments of not just IPCW but many other colleges.

The workshop was kickstarted with a video about the rampant culture of overworking, following which the hosts introduced themselves.

The first topic discussed was overworking: what it is and why we often take part in it. Some common signs of overworkers remain persistent throughout cultural boundaries and they are: being a perfectionist, having a critical approach towards one's performance, the need to compare, over-emphasizing on the outcomes, gaining motivation by fear of failure, having frequent emotional outbursts, and having the tendency to take risks in order to achieve certain goals. In the name of quality and productivity, such qualities are normalized in workplaces, leading to the formation of hustle culture. A constant source of stress leads to increased amounts of cortisol in the brain, which in turn can be detrimental to both physical and mental health.

The psychology behind overworking was discussed next, wherein the presenter talked about personality traits of overworkers.

Social media's contribution into making hustle culture a cultish movement was talked about too. Consequently, the art of slowing down was discussed, including steps like: setting boundaries, being unashamed to ask assistance, taking out time for self-care, etc.

The next segment talked about positive psychology and how embracing gratitude is important and can be an intrinsically rewarding process.

A short activity on mindfulness was conducted and participants were asked to grab a paper and a pen. On the top right corner of the paper, they were required to write 3-4 things that they feel grateful about on a daily basis. Next they were asked to draw the outline of their hand on the paper. They were then asked to start drawing a spiral while keeping the lines as close as possible. While drawing, the participants were asked to keep in mind what they wrote on the paper before. A soothing tune was played throughout the activity.

The aim of the activity was shared after its completion; the objective of the activity was to provide the participants with a few moments to themselves where they can focus on only one thing and indulge in mindfulness.

The workshop was concluded by the presenter and the participants enthusiastically gave positive feedback. A token of gratitude was extended to the principal, Ms. Ritu, Ms. Supreet, Ms. Monali, Ananta, and lastly to the audience for their cooperation.
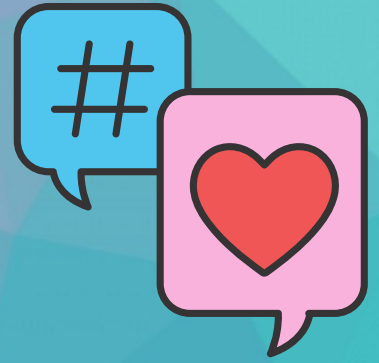
Social Media Campaigns

Basics of Cyber Security

Antivirus

Antivirus software was originally developed to detect and remove computer viruses, hence the name. Antivirus software protects computers from threats of the proliferation of malware.

The methods mentioned as sandbox detection, data mining techniques, signature-based detection, heuristics, rootkit detection, real-time protection are used by antivirus engines to perform the following features:

- Real-time scanning
- Automatic updates
- Protection for multiple apps
- Auto-clean

Firewall

A guard that keeps its eyes on the incoming and outgoing network traffic and decides which network is good or bad for your device is called a firewall, which may be in the form of hardware and software. The hardware firewall is stored between network and gateway. The software firewall is a program in your device that works through applications. The firewall works in many ways:

- It blocks unwanted networks works as a guard against hackers .

- Prevention against viruses and many more

Some types of firewall are:

- Packet filtering firewall
- Proxy service firewall
- Stateful multi-layer inspection
- NAT firewall
- Web application firewall
- Next-generation firewall

Incognito

Incognito mode is also called private browsing, private window, or In Private browsing, which is designed to delete the local data of web browsing. Incognito mode cannot be completely anonymous on the Internet. There are some cases when we cannot hide browsing history when hackers monitor our software to view our IP address, Add-ons, and Plugins, etc. Incognito mode doesn't provide complete privacy. It is basically a setting in an Internet browser that prevents the storage of browsing history. In Incognito, none of your browsing history, cookies and site data, or information entered in forms are saved on your device. This means your activity doesn't show up in your browser history, so people who also use your device won't see your activity.

Data Breaches

AliBaba Data Breach

The Chinese e-commerce giant Alibaba's Taobao shopping platform suffered a data leak that exposed over 1.1 billion pieces of user information according to a Chinese court verdict. Taobao is Alibaba's popular shopping platform in China, with more than 710 million customers every month in 2020. The implicated marketing consultant illegally obtained user data through web scraping software from November 2019 to July 2020 before Alibaba discovered the illegal operation and alerted the police. The People's Court of Suiyang District in Central Henan Province imprisoned the Chinese software developer and his employer for three years in prison and a $70,260 fine. A statement was recorded by the company that none of the customer data was sold and Alibaba's users didn't incur financial losses from the episode. The incident however coincides with Beijing's widening effort to tighten the ownership and handling of troves of information that internet giants from Alibaba to Tencent Holdings Ltd. and Meituan hoover up daily from hundreds of millions of users.

LinkedIn Data Breach

LinkedIn is a social networking service geared toward business professionals. The site's purpose is to allow registered users to create and document professional networks of people they know and trust. Due to its high reach and accessibility in today's world, it has been hit several times with a breach.

The most popular and eminent breach it struck was a security breach that exposed the data of 700 million users which means that 92% of the site's users would have had their data compromised, but for the sake, they also denied this. The collection, obtained by the record is being shared in private Telegram channels in the form of a torrent file containing approximately 187 GB of archived data. But in the general picture, incidents of scraping public sites have also been getting more common, such as scrapes of Clubhouse, Instagram, and Facebook data. The collection, obtained by the record is being shared in private Telegram channels in the form of a torrent file containing approximately 187 GB of archived data. But in the general picture, incidents of scraping public sites have also been getting more common, such as scrapes of Clubhouse, Instagram, and Facebook data.

Yahoo Data Breach

Founded in January 1994 by Jerry Yang and David Filo, Yahoo is a web portal, search engine and one of the pioneers of the early Internet era of the 1990s. Internet service provider Yahoo! faced the biggest data breach in history. In late 2016, hackers were exposed to two major data breaches related to user account data. The first breach reported in September 2016 occurred in late 2014 with over 500 million Yahoo! user accounts. Another data breach was reported in December 2016, which occurred in early August 2013. The initial assumption is Yahoo! then, in October 2017, we confirmed that all 3 billion user accounts were affected.

Cyber Threats

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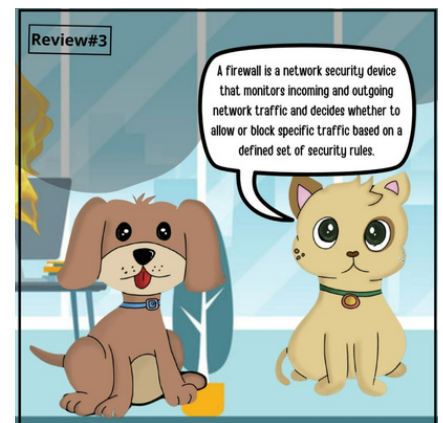
Comic Strip

Maya: Where is all this smoke coming from?

Edgar: It is the firewall, My security expert asked me to set it up.

Maya: The firewall is not made up of actual fire Edgar.

Maya: A firewall is a network security device that monitors incoming and outgoing network traffic and decides whether to allow or block specific traffic based on a defined set of security rules.

Reasons of Air Pollution in Delhi

Crop Burning

The skyrocketing pollution level in Delhi's air is an annual winter ordeal, and so is the burning of paddy and wheat stubble. Stubble burning is not the only source of air pollution in Delhi, but it's a significant contributor.

Crop residue burning is one among the many sources of air pollution. Burning of crop residue also contributes indirectly to the increased ozone depletion. It has adverse consequences on the quality of air. Stubble burning has been reckoned among the major contributors of air pollution.

Vehicular Emission

The transport sector is the main source of PM2.5 emissions in Delhi (28 percent of all PM2.5 emissions). Vehicular contribution also makes up 80 percent of nitrogen oxides and carbon monoxide in Delhi's air. These vehicles are responsible for 41 percent of the total pollution load in Delhi.
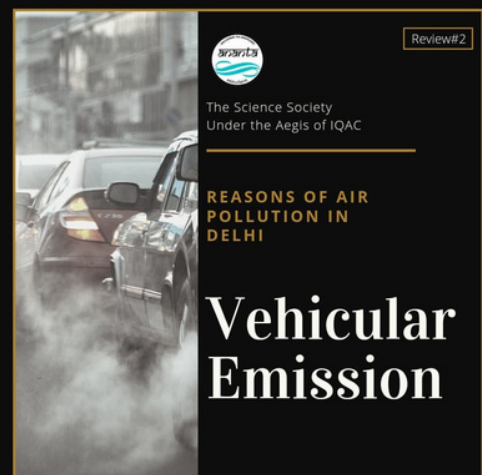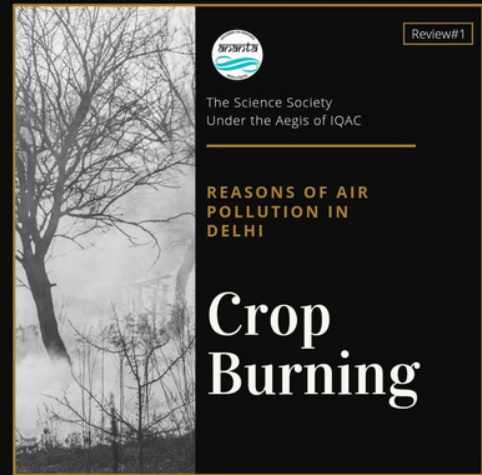
The main sources of air pollution in Delhi include vehicle exhaust, heavy industry such as power generation, small-scale industries like brick kilns, suspended dust on the roads due to vehicle movement and construction activities, open waste burning, combustion of fuels for cooking, lighting, and heating, and in-situ power generation via diesel generator sets.

Industrial Pollution

Pollution caused by industries is called Industrial pollution. Industries are playing a vital role in the development of our society but there is no point in such progress which is slowly destroying our environment. Industries are continuously releasing contaminated water in all the water bodies and pollutants in the air. The high intensity of sound produced by various factories, mills and industries causes noise pollution which is a major part of industrial pollution.

Following are the major effects of industrial pollution:

- Melting of glaciers.
- Loss of biodiversity.
- Various health hazards.
- Contamination of pure drinking water.
- Breathing problems due to poisonous air.
- Unwanted Stress due to noise pollution.

Review#1

The Science Society
Under the Aegis of IQAC

REASONS OF AIR POLLUTION IN DELHI

Crop Burning

Review#2

The Science Society
Under the Aegis of IQAC

REASONS OF AIR POLLUTION IN DELHI

Vehicular Emission

Review#3

The Science Society
Under the Aegis of IQAC

REASONS OF AIR POLLUTION IN DELHI

Industrial Pollution

Respiratory and health Problems Caused

The most harmful pollutants are categorized into particulate matter and chemicals and gases, which enter and causes damage to our health if inhaled or ingested. The size of the particulate matter hanging in the air is important as there is an increase in what is called the respirable size (particles less than 10 micron) that get lodged straight into the lungs, causing permanent damage. There's long-term damage due to particulate matter that gets lodged deep inside the lungs and can cause progressive lung diseases. Even chemicals and gases are equally harmful as their side-effect is visible almost immediately. Exposure to pollutants is detrimental to human lung functioning, prompting very serious changes to occur in the lungs. These changes indicate restriction to the lung expansion, obstruction and narrowing of the airways. Prolonged exposure can lead to fatal lung conditions such as Chronic Obstructive Pulmonary Disorder (COPD), which is a progressive lung disease that makes it hard to breathe. One must take symptoms such as wheezing, shortness of breath and chest pain seriously and if these symptoms persist even after two-three weeks then a doctor should be consulted. Pollution affects not just the lungs, but other organs such as the heart and brain over a period of time.

## Child Health Problems Caused

Air pollution has both short and long term impact on human health. Although air pollution affects the entire population of this metropolis, Delhi's children are the most defenseless against its toxic effects. Maternal exposure to air pollutants can adversely impact birth outcome and children's respiratory systems, immune status, brain development and cardiometabolic health. Few recent studies have focused on pollution enhancing activities like biomass burning to assess it's impact on child health related outcomes like birth weight, gestational age, infant mortality and adult height. In 2019, Delhi witnessed the dropping of air quality to severe level as it was declared public health emergency by Environment Pollution (Prevention and Control) Authority. The children were worst hit with respiratory problems; increased exposure to such air also raises their risk of suffering from asthma and bronchitis. Additionally, about 15% of the children in Delhi reported frequent eye irritation. According to a research about half of the 4.4 million children who reside in Delhi already have irreversible lung damage. The WHO also concludes that polluted air affects development of the nervous system in children, potentially reducing cognitive function. Prolonged exposure can lead to fatal lung conditions such as Chronic Obstructive Pulmonary Disorder (COPD), which is a progressive lung disease that makes it hard to breathe. One must take symptoms such as wheezing, shortness of breath and chest pain seriously and if these symptoms persist even after two-three weeks then a doctor should be consulted. Pollution affects not just the lungs, but other organs such as the heart and brain over a period of time.

Global warming Caused by Delhi Air Pollution

Global warming is caused by blanket of pollution that traps heat around the earth. This pollution comes from vehicles, factories, homes and power plants that burn fossil fuels such as oil, coal, natural gas and gasoline. According to Intergovernmental Panel for Climate Change (IPCC) report Delhi, the national capital of India may be on its way to become the heat capital of the country by the end of the century in the worst emission release scenario.

The capital city min experience 5.3° C rise in mean temperature by 21st century as compared to pre-industrial under this condition. The rainfall especially, short- duration heavy downpour ,is also stated to rise sharply by year-end under worst possible warming emissions release scenario, which is mainly catered to high temperature and severe pollution in Delhi. Subimal Ghosh a scientist and lead author of the IPCC report, explain that urbanization more specifically urban heat Island generated in city contribute to heat rise in Delhi

Delhi with cocktail of extremely high projected heat rise in severe pollution is likely to suffer critically from the trend. Report said that the temperature rise is largely on account of warming induced by Greenhouse gas emissions.
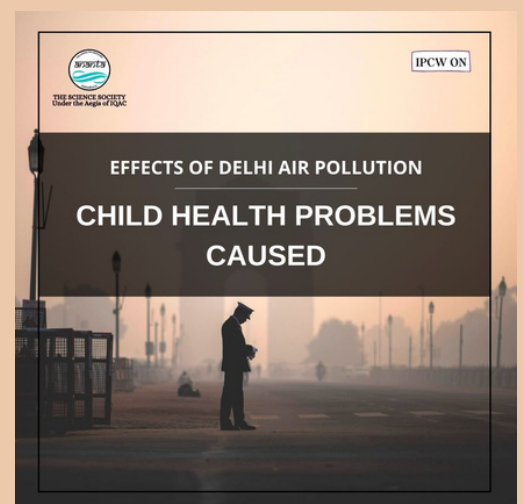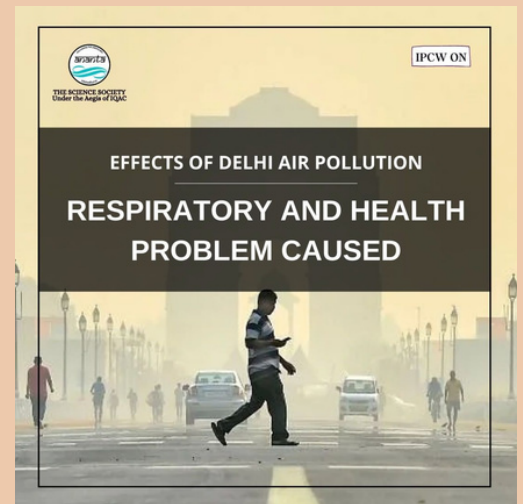
Air Pollution Cleaning Technologies

Scrubbers

Scrubbers are devices used to mitigate air pollution by removing dangerous gases and particles from industrial exhaust streams. It is a versatile device that may be built to minimize both particulate and gaseous pollution while also managing large volumes, pressure changes and process flows. A scrubber is typically installed before the RTO (Regenerative Thermal Oxidizer) system, and it is frequently paired with a quench system to further reduce process temperatures and neutralize process flows. An expert team of pollution control engineers must carefully assess the process stream particles and contaminants when choosing the type of scrubber technology and proper neutralizing agents. Epcon has been implementing scrubber systems with its Thermal Oxidizers throughout applications and industries as air pollution control experts.

Catalytic Converter

The catalytic converter is an emission control device for internal combustion vehicle exhaust. It converts vehicles' toxic exhausts such as cars and buses trucks into benign pollutants by catalyzing a redox reaction. Early prototypes were first designed in France at the end of the 19th century when only a few thousand "oil cars" were on the roads. A catalytic converter model was patented by Eugene Houdry, a French mechanical engineer after seeing the results of early studies on smog in Los Angeles. The first production models were made in 1973. They change harmful substances such as carbon monoxide, nitrogen dioxide, nitric oxide, and hydrocarbons into less harmful substances like carbon dioxide and water vapors through chemical reactions. The first widespread introduction of these was in the United States automobile market to comply with the US Environmental Protection Agency's new regulation of exhaust emissions in 1975. Catalytic converters have proven to be reliable and effective in reducing noxious tailpipe emissions.

Multi-Pollutant Monitoring Device

Monitoring is a common word for ongoing compilation and aim of measurement data or other evidence for evaluating performance against a basic or significance concerning a particular ordinance. : Ambient Air Quality Monitoring It compiles national air quality data on criteria pollutants: Carbon Monoxide(CO), Oxides of Nitrogen (NO2, NO), Ozone(O3), Lead(Pb), Particulate matter(PM) - both particulates with aerodynamic diameter below 10 micrometers(PM10) and particulates with aerodynamics diameter below 2.5 micrometers (PM 2.5), Sulphur Dioxide(SO2), and Volatile Organic Compounds(VOC). Stationary Source Emissions Monitoring The objectives of stationary source emissions monitoring stand to provide. 1) data and information from a regulated stationary source to indicate submission with distinct regulatory provisions. 2) performance evidence to facility operator to seize corrective effort. In general, stationary source emissions monitoring is formulated on four components including 1) indicator of performance,2) measurement techniques, 3) monitoring frequency and 4) averaging time Active Sampling involves the use of an air testing pump to vigorously pull air through a collection appliance such as a filter. Active sampling is independent of wind speed, nevertheless, diffusive samplers do not operate well at all, under least air activity or in other extreme increased wind circumstances.

Comic Strip

Edgar: Cough! Cough! Why do I wake up to poor air quality these days?

Maya: It is so, because of unfavorable meteorological conditions like slow wind, low temperature contributing to an AQI of 406 that is next to the severe category.

Edgar: Why is the AQI so high?

Maya: It is because of the stubble burning and poor dispersion resulting in the accumulation of pollutants, and if it continues, the coming week is critical regarding Delhi-NCR's air quality.

Edgar: Is the Government doing something about the high AQI levels?

Maya: The Delhi government reimposed the ban on construction and demolition activities following the Supreme Court's order.

Economic Impact of War

Inflation

Inflation is a phenomenon that occurs when the prices of goods and services rise. When it comes to wartime, A war economy imposes greater taxes on wages and profits to limit demand. War bonds and tariffs help to fund the war effort while decreasing demand for civilian goods and services. Conducting a large-scale war without such austerity measures risks inflating the economy.
General effects of Inflation:

- The rise in federal deficits
- The rise in energy prices
- Shortage would probably worsen
- Energy prices are likely to rise
- Add inefficiency in the market and make it difficult for companies to budget

Summary

Middle-income savers suffer the most from high inflation since their investments lose value. When a country is decimated by war and its capacity to manufacture commodities is severely limited, hyperinflation can occur when governments rush to print money to compensate for the shortage of goods.

The decline in Working Population

Reasons for the declining population during wartime:

- Engaging the population more in war to show love towards the country
- Attack on civil population
- Lack of resources
- Due to inflation, people die out of hunger
- Pressure of government on civilians to be involved in the war, eg: Ukraine

Current Status

- Ukraine's war is generating tremendous human agony and the sad loss of life.

- Early data estimates suggest that 90% of the Ukrainian population could be facing poverty.
- More than 2 million people have fled, most of whom are women and children. This might have far-reaching implications.

Summary

During the conflict, there is a high death rate and a low birth rate, which significantly reduces the population; however, after the war, there is a low death rate and a high birth rate, which increases the population.

The rise in National Debt

Rise in national debt during the war:
The cost of waging a war depends on many factors, including the opportunity cost of military spending and the human cost of lost lives. It also depends on the type of war, the length of the conflict, and where and how it is waged - such as in Iraq or Afghanistan.
How Does the National Debt Affect the economy?

- When the debt-to-GDP ratio exceeds 77 percent, investors are concerned about a default.
- Numerous studies have found that a high level of national debt dampens long-term growth by influencing interest rates.
- As customers spend less money, firms may cut their pricing, causing them to lose money.

Summary

We must aim for a post-war balanced budget before beginning to pay down the debt - Economist Sir Douglas Rushdie

Weapons that Can Destroy the World

Russia's Dead Hand

- Erstwhile USSR (Union Soviet Socialist Republic), after disintegration is known as Russia developed what is known as the Doomsday device called Dead Hand system in total secrecy.
- The Dead Hand is also known as The Perimeter. It was an automatic nuclear control system that was developed during the cold war era to be used by the Soviet military.
- The dead hand is mutually assured destruction (MAD) as the system is automatically triggered without any human intervention.
- The Soviet Union feared an attack from American nuclear attack submarines. Just to retaliate Soviets developed a fully automated Dead Hand.
- The Dead Hand's main job is to monitor whether there have been any nuclear explosions on Soviet territory.
- The Dead Hand went operational in January 1985. The Soviet Union collapsed and no one heard about the doomsday device. But many believe that it still exists.

Caption

The most dangerous and powerful doomsday weapon with the potential to destroy the whole earth for several years.

The technology available today has mostly benefited mankind in its best way. But while living in this era no one thought the tables could turn on us by the technology itself.

This harmful use of technology will never benefit but rather destroy not only the lives but the humanity and faith of all mankind.

US Air force's Project Thor

- The project is known by several names like Kinetic Bombardment, Project Thor, and Rods from God.
- The main aim is to cause massive destruction by dropping the rod from a satellite made of tungsten and weighing around 9 tons; the size of a telephone pole.
- The destruction will be caused by the kinetic energy of its own which depends on its mass and velocity.
- The development of this weapon started during the Vietnam War when they used something similar to this weapon called lazy dog projectiles.
- The weapon has the potential of causing an earthquake. If several rods are dropped at different locations it would result in massive destruction and can create mankind's greatest catastrophe.
- The weapon can also destroy hardened targets in just minutes, making it a potential weapon for carrying out a surgical strike against the enemy's territory.

Caption

- The most dangerous and powerful doomsday weapon with the potential to destroy the whole earth for several years.
- The technology available today has mostly benefited mankind in its best way. But while living in this era no one thought the table could turn on us by the technology itself.
- This harmful use of technology will never benefit but rather destroy not only the lives but the humanity and faith of all mankind.

Weapons that Can Destroy the World

Psychological Impact of War

Russian Navy's Nuclear-Armed unarmed underwater vehicle

- An underwater drone-like weapon developed by Russia gained the headlines around the world when a state-run news agency revealed a potential Russian weapon.
- This weapon is called a nuclear-capable underwater vehicle (UUV). It is yet again a robotic mini-submarine.
- UUV can travel at speed of over 100 knots (115mph) and has a range of up to 10,000 km.
- It can also be equipped with a thermonuclear warhead with a layer of a highly radioactive substance called Cobalt- 59.
- UUV is a doomsday weapon that has the potential of causing devastating damage to the coastal illations by creating a wide area of radioactive contamination, making the coastal installations unusable for a long period.

Caption

The most dangerous and powerful doomsday weapon with the potential to destroy the whole earth for several years.

The technology available today has mostly benefited mankind in its best way. But while living in this era no one thought the table could turn on us by the technology itself.

This harmful use of technology will never benefit but rather destroy not only the lives but the humanity and faith of all mankind.

Post-traumatic stress disorder

During the war, people can be exposed to many different traumatic events and this raises the chances of developing mental health problems like Post Traumatic Stress Disorder (PTSD), anxiety, and depression.

Post-Traumatic Stress Disorder (PTSD) is a mental health condition that's triggered by a terrifying event – either experiencing it or witnessing it.

Symptoms– to be diagnosed with PTSD individual must have:

1. Re-experiencing includes:
   - Flashbacks—reliving the trauma over and over, including physical symptoms like a racing heart or sweating
   - Bad and frightening dreams

2. Avoidance symptoms include:
   - Staying away from places, events, or objects that are reminders of the traumatic experience
   - Avoiding thoughts or feelings related to the traumatic event

3. Arousal and relativity include:
   - Being easily startled
   - Feeling tense
   - Having difficulty in sleep

4. Cognition and mood symptoms
   - Trouble remembering key features of the traumatic event
   - Distorted feeling
   - Less interest in every activity
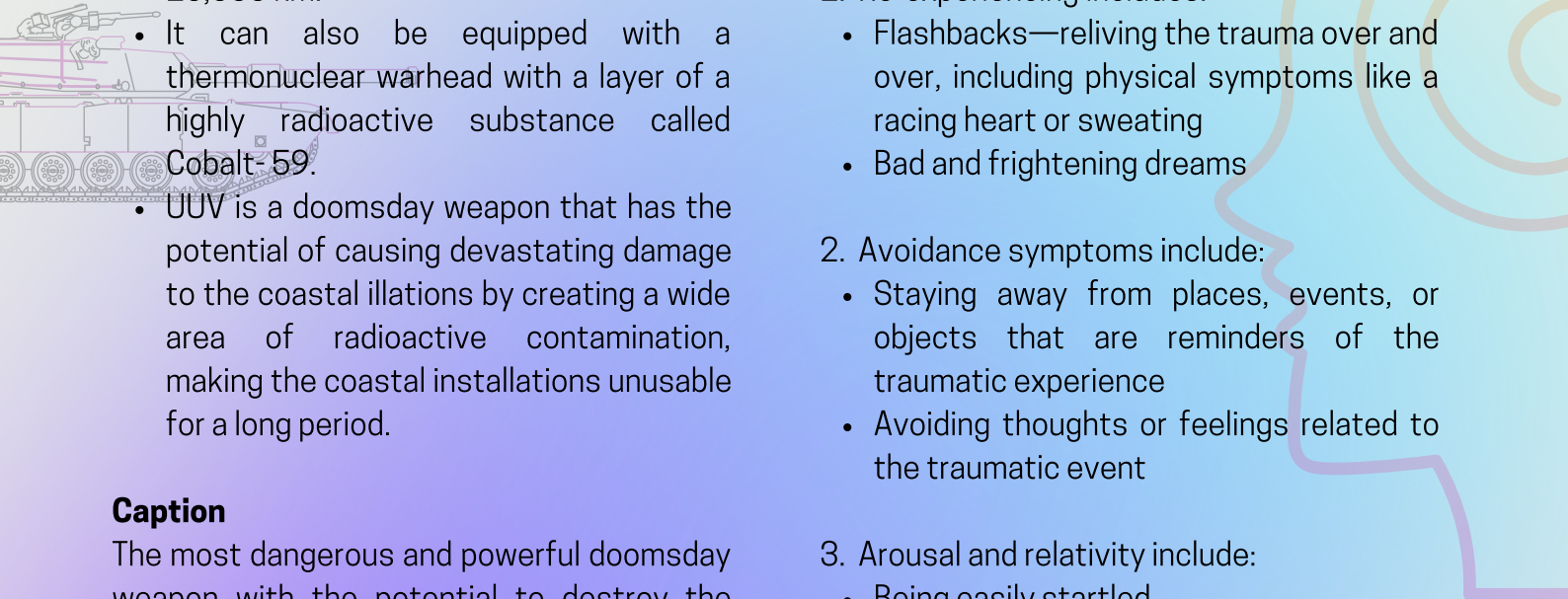
Psychological Impact of War

Treatment and therapies
- Psychotherapy and medications can become helpful in PTSD

SUMMARY – The occurrence of a wide variety of psychological symptoms is widely seen during a war. The study of the psychological consequences of the wars of the current century adds new understandings and solutions to the mental health problems of populations.

ANXIETY
Anxiety is the emotion characterized by a feeling of tension, intense worry about everyday situations, worried thoughts, and physical changes.

Symptoms
1. Generalized anxiety disorder
- Feeling restless
- Having difficulty concentrating
- Being irritable
- Having sleep problems

2. Panic disorder
- Heart palpitations
- Sweating
- Trembling or shaking
- Feelings of impending doom
- Feelings of being out of control

3. Phobia related disorders
- May have an irritational or excessive worry about encountering the feared object or situation.
- Endure unavoidable objects and situations with intense anxiety

Treatment and therapies
1. Cognitive-behavioral therapies
2. Antidepressants
3. Stress management techniques.

DEPRESSION
Depression is a mood disorder that involves a persistent feeling of sadness and loss of interest. It is different from the mood fluctuations that people regularly experience as a part of life. There are many types of depression-like psychotic depression, persistent depressive disorder, and postpartum depression.
Symptoms
1. Difficulty in remembering, concentrating, or making decisions
2. Appetite
3. Thoughts of suicide or its attempts
4. Loss of interest in hobbies and activities
5. Aches or pain without a clear physical cause
6. Feeling helplessness
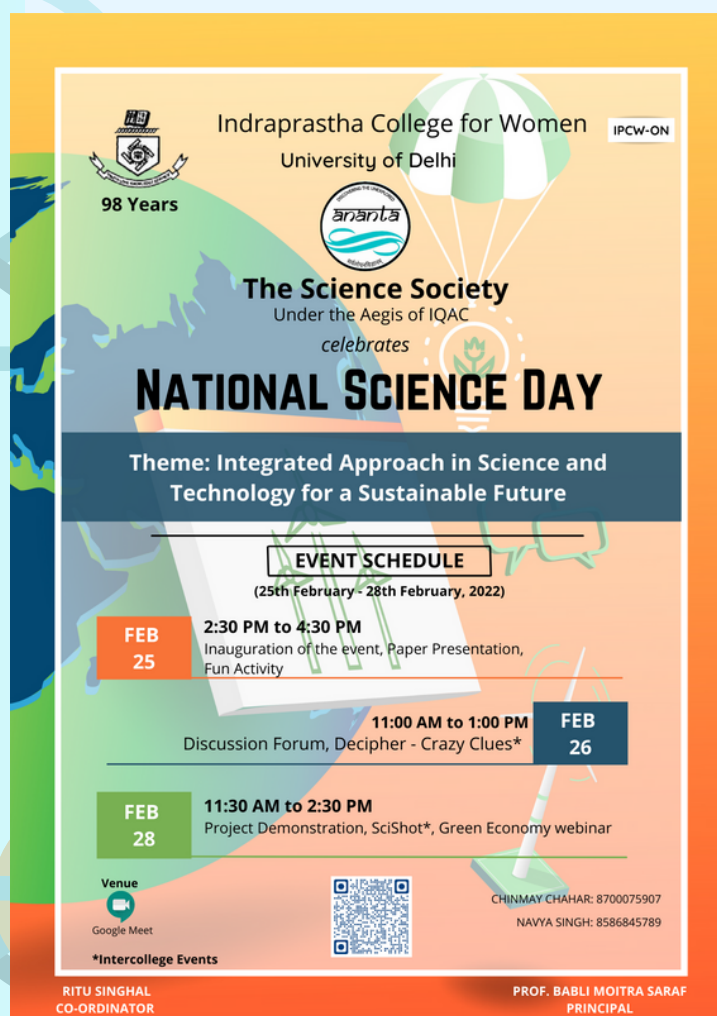7. Moving and talking slowly
Treatment and therapies
Not everyone has the same symptoms some people experience only a few of them while others experience many. Several persistent symptoms like low mood are required for a diagnosis of major depression but they can cure by subsyndrome.

NATIONAL SCIENCE DAY

25 FEBRUARY 2022 - 28 FEBRUARY 2022

Ananta-The Science Society of IPCW celebrated National Science Day 2022 under a three-day event, on the theme Integrated Approach in Science and Technology for Sustainable Future, launched by the Department of Science and Technology, Government of India. The event was a great success, where students from different universities enthusiastically took part in the competitions and events organized by the society. The three-day event consisted of Paper and Project Presentations competition, a discussion forum on the importance of sustainable development, an online treasure hunt competition, a photography competition, and a webinar on the green economy, where students gained lots of insightful knowledge and scientific wisdom.

National Science Day

Science is a methodical and rational examination of how the universe functions. What we see around us is the result of science and technology's gift. Science and technology are responsible for all phenomena, whether it's a smartphone, fans, tires, a car, cloth, paper, radio, or television. Today, a human being cannot fathom his or her life without the many thousands of small and large things developed by science. Every year on February 28th, National Science Day is celebrated to commemorate the discovery of the 'Raman Effect.' On this day, India's famous scientist CV Raman established the 'Raman Effect' and was awarded the Nobel Prize for it.

The theme of National Science Day 2022 was 'Integrated Approach in Science and Technology for a Sustainable Future'

According to a press release issued by the Ministry of Science and Technology, the NSD theme was chosen to increase public awareness of the scientific issues involved, that celebrations of important scientific days should not be limited to a single day, and that there is a need to build on this on a regular basis.

The four pillars of science integration are: bringing together all science ministries and departments to work on a theme-based approach to problem-solving, extended science integration aligned with technical, engineering, and medical institutes, extra science integration aligned with Line ministries/departments of the Central government, and extended science-driven approach involving industries and start-ups leading to a sustainable future.

The purpose of National Science Day is to increase awareness about the value of science. Public speeches, radio, television, science movies, science exhibitions on themes and concepts, debates, quiz competitions, lectures, and science model exhibitions are some of the ways educational institutions commemorate National Science Day.

Science and technology have played an essential part in India's post-independence development. Science has been accorded top importance since the country's independence. The judicious application of science and technology is one of the tools for achieving a new direction. In the field of science and technology, man has made significant progress. It has become difficult to live without technology in this way. Our lives have been made simpler, easier, and more convenient thanks to technological advancements.

Science has a significant role to play in making man a successful person in the future.

Today, man can complete his tasks in the blink of an eye, which is only possible thanks to science. As a result, we can confidently assert that science plays a vital role in ensuring a sustainable future. Technology plays a critical role in ensuring a long-term future. Today, most countries are turning to science and technology to find solutions to their environmental challenges and to achieve a more sustainable future. technology has advanced in all sectors of research, and technology can assist them in developing a new or alternate source of resources to replace those that are decreasing. The third premise is that science can assist us in successfully reusing the remaining resources.

Science can help promote sustainable agriculture and fisheries. Products that are safe to consume can be made by reducing the usage of pesticides and antibiotics. This also aids in the preservation of the world's natural resources.

Science plays a vital role in our day-to-day lives. Today's medical institutions benefit from science and technology. Science is a method of transmitting information from one generation to the next.

This is one of the finest times to promote this theme because we are in the midst of a pandemic that has not only raised public awareness about the numerous approaches accessible to us but has also prompted us to take action.

Implementing the approach of problem-solving, extended science integration matched with technology, and so on are the four pillars that support science integration. It's also an opportunity for us to intentionally dedicate ourselves to this strategy, which will have far-reaching implications in the future. Science is intertwined with all aspects of our lives. On the basis of science and various technologies, we are considered one of the best countries in the world. We can only know our past through science, and we can only know our future via science and technology.

- Khushi Bugalia
Quiz Head

DAY 1

DATE: 2 5 /02 / 2 1
TIME: 11:00 A.M. -1:30 P.M.
VENUE: GOOGLE MEET
NUMBER OF PARTICIPANTS : 87

Ananta- The Science Society of Indraprastha College for Women, University of Delhi hosted a three-day event as a part of the celebrations for National Science Day. This year's theme is 'Integrated Approach in Science and Technology for a Sustainable Future'. The Day 1 of The event was hosted online at Google Meet on 25 February 2022, Friday between 2:30 pm and 5:00 pm. It recorded the participation of 87 people from various departments of Indraprastha College for Women.

Chinmay Chahar, President of Ananta-The Science Society introduced the event by sharing the significance of National Science Day. India celebrates National Science Day to remember the discovery of the Raman Effect, which earned him a Nobel Prize in 1930. The event was inaugurated by displaying Ananta's journey. From a group of students and teachers fascinated by science, under the guidance of the principal, Ananta became a society with many successful events, projects, and quizzes.

The President, then, addressed the audience and introduced the sequence of events lined up for the day. The main event was 'Research Paper Presentation' to gain insights on anything and everything Science. Individual participation or a group of a maximum of 3 people were allowed to present in teams. 7 minutes were given to each team for presentation. Students across departments researched innovative and insightful ideas.

- The first paper was titled, 'Perceived Stress, Resilience, and Coping Strategies: Sexual Orientation Group Differences among Indian Youth', which was presented by Sutapa Goswami, a Psychology student. The purpose of the research was to measure comparative stress, resilience, and coping strategies among different sexual orientation groups in India. She gave an introduction to stress, and resilience and highlighted 3 coping strategies- problem-focused, emotional coping, and avoidant coping.

NATIONAL SCIENCE DAY

- Tripti Kashyap, Sadaf Shareef, Meetali Madhusmita, students of BSc. (Hons.) Computer Science presented a paper on **'Low-cost wireless network'**. They introduced 6 types of Wireless networks. They also discussed the implementation of low-cost wireless networks, the most economical way, and future possibilities of wireless networks.

- Aditi Yadav and Manya from the CS department presented a paper on '**Impact of artificial intelligence'**. Apart from the introduction, they discussed its future scope, advantages, and disadvantages. They addressed the most raised question, "Will AI replace humans?" by answering that only 6% of people will be affected and even they will have more opportunities in AI-related fields.

- '**Understanding the working of GPS**' was the name of the paper presented by Tashu Vikram and Prerna Negi, students of BSc (Hons) Mathematics. They presented and explained their research using graphical calculations and relativity theory.

- Hemanshi Mehta, a 2nd-year Psychology student presented a paper on '**Gender Differences in Spiritual Experiences and Resilience**'. Her findings suggested that women have higher spiritual experiences than men and men are more resilient than women.

- Aastha Banot from BA Programme researched '**Association Between Dysfunctional Family and Children's Mental Health'**, wherein she discussed the impacts of dysfunctionalities in families on children and the impact of instances like domestic violence on children's mental health.

- '**Biometrics Authentication: The Challenges and Future Scope'** is the name of a paper presented by Akshta Khandelwal, Kashish Jain, and Niangkhanching, students of Bsc (Hons.) Computer Science. They discussed the types of biometrics, their challenges, and their future scope.

- The next presentation was on **'Waste Management'**. It was prepared by Varnita Pande and Nagadi Leela Rao, from BSc (Hons) Computer Science. Their research focused on the concept of waste management, waste generation, and advancement in ways to manage waste. Most importantly, they talked about Smart Waste Management.

- Ipsa Sindhu chose to base her research on **'Widening Inequalities in Developing Countries & Possible Ways to Tackle it'**. She talked about social, economic, and environmental causes.

- Poonam, a Geography student, presented her research on **'Maps in the Contemporary World'** wherein she also talked about Contemporary Cartography.

NATIONAL SCIENCE DAY

- Pragya Rana, Pallavi Singh, Megha Shakya, Kunika from B.A. (Hons.) Geography chose the topic **'Know Our Dying Rivers'**. The results suggest that two out of 3 major Indian cities deal with water shortages and climate change is expected to cause worse floods and droughts.

- Another innovative paper was **'Role of Assistive Technology in the Lives of Differently-Abled People'**. The research topic was undertaken by Cheshta Dabra, Nitya Srivastava, and Hanshika Bhardwaj, students of the BA Programme.

- Sejal Mansoori from Computer Science elaborated on **'An Introductory to Quantum Computing'** explaining Bloch Sphere and Quantum Entanglement. .

- Isha Sharma and Esha from BA Programme, chose to stay closer to their roots and shared their research on **'Identifying Migratory Birds visiting IPCW Campus'**. The green habitat invites birds like Verditer Flycatcher to campus.

- Adding to this list, Payal Swami from BA Programme, based her research on 'Cataloging Heritage Trees of IPCW'. 8 heritage trees namely- Arjuna (4), Ashoka tree (117), Banyan tree(4), Imli tree(2), Khiri tree, Mango tree(29), Neem tree, Pilkhan trees (15) are found in the campus.

- Anshika Bansal, Sanskriti Singh, and Khushi Bugalia, from B.A. (Hons.) Economics, research on the topic 'Covid-19 in Rural India: Education Disrupted and Lessons Learned.' They discussed the effects of the Covid-19 pandemic on education, especially in Rural India.

This event was followed by **'Fun Activity'** hosted by Dharini Sharma and Shambhavi Chaudhary to tickle the mind of the audience. The participants actively participated in this exciting 20-question fun quiz. This followed the conclusion of Day 1 of the celebrations.
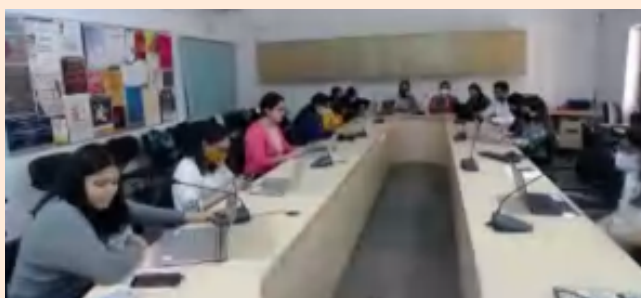
Navya Singh, the Vice President of Ananta- The Science Society presented the vote of thanks by acknowledging the Principal; Ms. Ritu Singhal, coordinator of Ananta; faculty members from departments; Mr. Varun Sharma, system and network admin; and appreciated Team Ananta for their hard work. She also thanked the audience and participants for making the event a success.

DAY 2

DATE: 2 6 /02 / 2 1
TIME: 11:00 A.M.-1:00 P.M.
VENUE: GOOGLE MEET
NUMBER OF PARTICIPANTS : 61

Indraprastha College For Women
University of Delhi

98 years

ananta

The Science Society
Under the Aegis of IQAC
presents

DISCUSSION FORUM
on the occasion of
NATIONAL SCIENCE DAY

IMPORTANCE OF SUSTAINABLE DEVELOPMENT

FEB 26,2022 | 3:00 PM | https://forms.gle/KS wr81erc9LdkxnR8

Ms. Ritu Singhal
Co-ordinator

Prof. Babli Moitra Saraf
Principal

DISCUSSION FORUM:

Ananta- The Science Society of Indraprastha College for Women, University of Delhi organized a Discussion Forum and the online scavenging treasure hunt game on the occasion of National science day,2022. The discussion forum was hosted by Ms. Pragya Rana, a student of the geography department under the guidance of Neha ma'am, and Decipher crazy clues event was hosted by Ms. Shivangi under the guidance of Gargee ma'am.

Ms. Pragya started the event with a brief introduction on the topic -" Importance of sustainable development " which was based on the theme of National science day 2022. Under the presence of Ms. Neha Mishra, Coordinator of Ananta.

A documentary was presented based on the theme of "Importance of Sustainable development." The documentary was titled 'Man' by Steve Cutts. The documentary depicted the evolution of mankind and the exploitation associated with this evolution. It also showed the technological advancements made by homosapiens. These advancements helped in constructing a bridge between primitive society and developed society. All these advancements provided him with luxury but with a destroyed peace of mind.

Upon the conclusion of the documentary, participants emphasised the need for sustainable development along with the plethora of suggestions for achieving sustainable development.
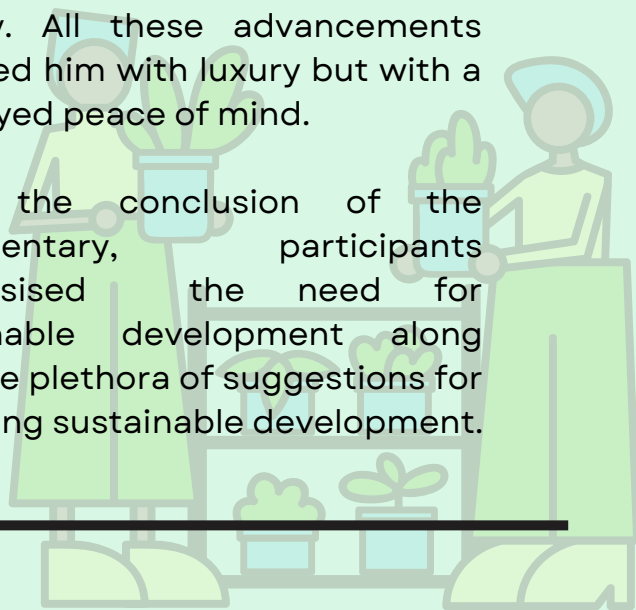
NATIONAL SCIENCE DAY

The steps which can contribute towards the attainment of SDG(s) by students are listed below:

- Adopting 3R: Reduce, Reuse and Recycle method.
- Switching off lights or other electrical appliances when not in use.
- By planting trees.
- Avoid the use of personal vehicles unnecessarily and use public transportation for traveling.
- Carrying jute or cloth bags when going to market rather than purchasing polythene bags.
- Using steel bottles rather than buying plastic bottles which would encourage the government mission of 'Single Use Plastic.'
- Avoid the wasting of food items as it results in the addition of waste items which would in turn lead to greenhouse emissions.
- Avoidance of idol simmering in water bodies as it has a lasting impact upon the ecological balance as well as the segregation of waste to be followed at the source itself.

Ms. Neha Mishra too threw light on the need to adopt SDG(s). She mentioned the
(i) Brookland Commission Report ;
(ii) 17 SDG(s) with a special emphasis upon SGG(s) related to Zero Hunger, No poverty, Good education;
(iii) Green Hydrogen technology;

The forum yielded that every action has its own consequences and thus one must adopt a 'minimalistic lifestyle' for a healthy future.

The discussion forum ended with a thanking note made by Ms. Pragya Rana (host) with a message to stay safe and stay tuned for the upcoming interesting topics.
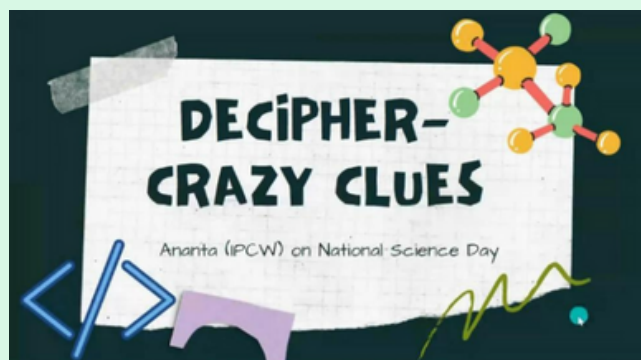
DECIPHER-CRAZY CLUES:

Shivangi Ruhela, the organizer and the host of "Decipher Crazy Clues" broke the ice by welcoming all the participants. It was based on Scientific facts.

This online treasure hunt game comprised 4 rounds. For every round participants were provided with instructions and clues which provided them with a stepping block to reach th**e progressing rounds.**

1st Round:
For this purpose, participants need to be in a WhatsApp group created for the treasure game.
They had to crack the password for the opening of the shared pdf on that group.
This pdf provided the clues to crack the 2nd round.

2nd Round:
Here, participants had to guess the Instagram id and in doing so they were directed to the clues required to crack the 3rd round.

3rd Round:
This round led them to figure out the classroom code.
The classroom code was the combination of digits as well as letters.

The clues to open this Password Protected PDF are:
1. This is a famous personality
2. This person rejected the concept of "Big Bang" as well as coined this term.
3. This person formulated the theory of stellar nucleosynthesis.
4. Enter his reversed date of birth (in numbers) eg. DD-MM-YYYY in YYYYMMDD as the password.
5. This pdf file is sent on your WhatsApp groups, decrypt it for the next round.
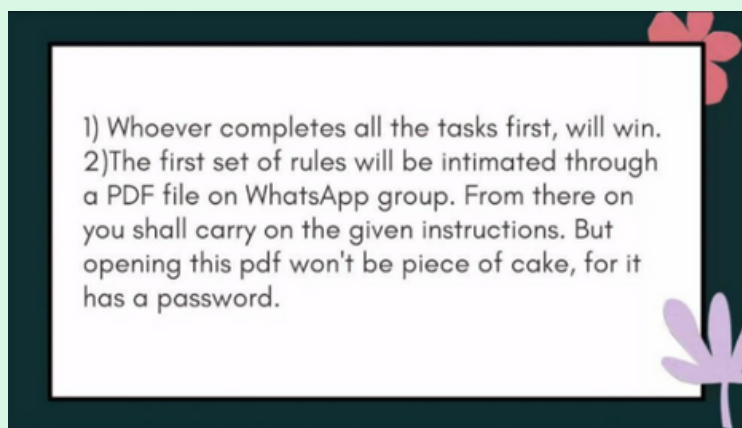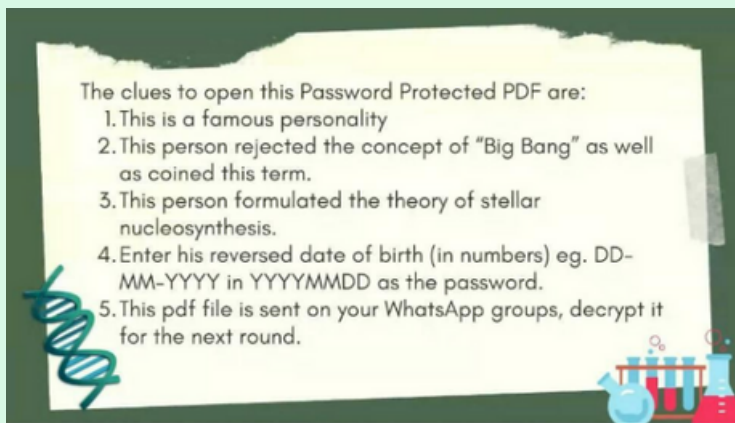
4th Round:
On the completion of preceding rounds, selected participants were asked to upload the answers in a pdf format to the questions provided in the classroom and message 'Done' on Instagram.

Upon the completion of all the preceding tasks, five participants were selected as per the time taken by each of them in uploading the answer sheets. The winners were not announced during the Google meet but were asked to wait for the results.

The winning persons would be provided with the certificate as per their rank and other students with a participation certificate.

With this Shivangi ended the meeting with a token of gratitude to the principal, the coordinator Ms. Ritu Singhal, the departmental faculty, the Society, and the attentive and patient audience.

1) Whoever completes all the tasks first, will win.
2) The first set of rules will be intimated through a PDF file on WhatsApp group. From there on you shall carry on the given instructions. But opening this pdf won't be piece of cake, for it has a password.

DAY 3

DATE: 2 8 /02 / 2 1
TIME: 11:00 A.M.-1:00 P.M.
VENUE: GOOGLE MEET
NUMBER OF PARTICIPANTS : 90

Ananta-The Science Society of Indraprastha College for Women, University of Delhi continued with the ongoing celebrations for National Science Day and concluded the 3rd day and the whole event on a successful note. This year's theme was 'Integrated Approach in Science and Technology for a Sustainable Future'. People from many different colleges from all over India also participated in the event with active participation from across the departments of the college.

Pragya Rana, the host for the day, commenced the event by informing the audience that India celebrates National Science Day to remember the discovery of the Raman Effect by Sir C.V. Raman, which earned him the Nobel Prize in 1930.

Pragya Rana introduced the event and inaugurated it by exhibiting a documentary on the theme of this year's NSD. The documentary showcased some harsh truths about our future with an underlying message, "We don't inherit Earth from our ancestors, we borrow it from our children."

The day also remembered the achievements and growth of Ananta over the years with some exceptional work coming from its students making the society and college proud. From a group of students, it has now come a long way under the guidance of the principal to quench their thirst for curiosity in the field of science. The society has three core divisions of Research, Content, and Graphics, with all three teams cordially doing the work to make an event more eventful. The society also has a series of comic strips running, which, with help of its two characters Maya and Edgar answer some fascinating questions about Science and life.

Ms. Ritu Singhal, Co-ordinator of Ananta along with Chinmay Chahar, President of the society, and Navya Singh, Vice President, then unveiled the anticipated annual magazine of the society for the session 2020-21 with success.

SCI-SHOT:

The winners of the photography competition-SciShot were then announced by Hansika Bhardwaj and Khushi Bugalia, whose entries were taken before the event via a Google Form in which the participants also had to provide a caption for their image. The theme of the competition was- "Science in Everyday Life". The participation was high, with entries from various colleges and universities.

- Prince Jaiswal from Brabu University, Muzaffarpur, bagged the first prize with his image depicting the phenomenal phenomena of Reflection.
- Preeti from Indraprastha College for Women came second with her image explaining why the droplets take the form of spheres

NATIONAL SCIENCE DAY

- Astha Bhanot from Indraprastha College for Women bagged the third position for her image which showed the color of the sky with her caption explaining the science behind it.

- Kumari Khushi from Miranda House bagged the fourth price for her image of the flowers which she saw under a microscope which in her words was the most beautiful experience.

- Sathak Mishra from Gyan Ganga College of Excellence(BBA) grabbed the fifth position for his image of a bird, watching its reflection on window glass.

Prince Jaiswal
1st Position
Brabu University Muzaffarpur
BA(Hons.) Political Science

NATIONAL SCIENCE DAY

Project Presentations

PROJECT PRESENTATIONS:

The event then moved on to the Project Presentations by the students of the college, for which they had to send videos showcasing their projects with the explanation to the society beforehand. The videos were exhibited at the event grabbing the audience's attention with the insightful ideas behind their projects. The participation was again high with 11 projects from over 20 students across the departments of the college.

Kalpana Yadav, a student of the college from the Computer Science Department made a project titled "Third Eye for Blind". She made gloves with an ultrasonic detector that beeped every time an object comes close to it. The less the distance from the gloves, the more the frequency of the beeps. This would help blind people to know when an object approaches them and walk safely.

Dharini Sharma, Drishti, Aditi Bhardwaj, Simran, and Dhanvi Chaudhary from Geography Department made a project on the "Greywater Recycle System", to install the greywater system in the college so that the greywater from the canteen can be used for the irrigation of plants in the campus and not wasted.

WEBINAR:

Following the Project Presentation was a webinar hosted by Ishita Aggarwal and Gouri Mangal from the Economics Department on the topic **"Green Economy, Green Growth and Sustainable Development".**

The speakers talked about the need for Green Economy and the opportunities procured by it through the companies that are already excelling from it. The speakers added that the green economy aims at well-being, promotes equity, and provides a win-win economic-environmental model by bringing in revenues from both environmental and economic investments. They talked about companies such as Zun Roof, Geeli Mitti, Proklean, and some more companies who operate in this area and provide a sustainable environment through their objectives. They also added the challenges faced such as the "one size fits all" approach being difficult to implement and the prioritization of infrastructural
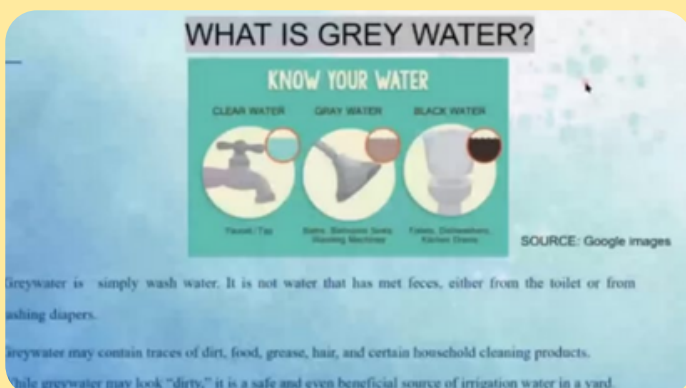
projects. They then concluded the webinar with the words that a green economy is the need of the hour and if we follow wisely it will help us enjoy a better lifestyle.

Dharini Sharma and Khushi then started a Fun Activity by quoting Albert Einstein- "The most important thing is to not stop questioning". The audience participated with enthusiasm and got to know interesting questions about Science.

Navya Singh, the Vice President of Ananta, concluded the event with a Vote of Thanks to Principal Dr. Babli Moitra Saraf, Teacher Coordinator-Ritu Singhal, Mr. Varun Sharma -system and network admin, faculty members from departments, and the student team of the society for their help and coordination. She also thanked the audience for making the three-day event of National Science Day a great success.