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SUMMARY SHEET

Criteria	Criteria 7 – Institutional Values and Best Practices
Key Indicator	7.1 – Institutional Values and Social Responsibility
Metric	<p>7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following:</p> <ol style="list-style-type: none">1. Green Audit /Environment Audit2. Energy Audit3. Clean and Green Campus Initiatives4. Beyond the Campus Environmental Promotion Activities <p>Options:</p> <ol style="list-style-type: none">A. All of the aboveB. Any 3 of the aboveC. Any 2 of the aboveD. Any 1 of the aboveE. None of the above <p>Response: A</p>
DVV Clarifications	<ol style="list-style-type: none">1. HEI needs to verify & check all the uploaded documents & provide all the necessary supporting documents/functional link for verification as per NAAC SOP.2. Kindly note that link provided for the supporting document is not opening, Please relook and provide correct valid link.3. Please provide geo tagged photographs for the chosen options for the claim made in the proper format.4. Please provide action taken reports and achievement report as clear and green campus initiatives.5. Please provide reports of the audits.6. Please provide certificate from the external accredited auditing agency (preferably government, concern department of affiliating university).7. Please provide any other supporting document for beyond the campus environmental promotions.8. Kindly note that auditing from government / govt. recognized organizations, university departments, recognized / certified non-profit NGOs shall be considered.
Relevant Documents	<ol style="list-style-type: none">1) List of Quality audits on environment and energy are regularly undertaken by the institution is attached. (Appendix-I)2) Policy document on environment and energy usage are attached. (Appendix-II)3) Clean & Green campus Initiatives & Beyond the campus environment promotion activity, reports and achievement report as clear and Green campus initiatives are attached. (Appendix-III)4) Reports of the Audits and Certificate from the auditing agency is attached. (Appendix-IV)
Relevant Documents Website Links	https://imsnoida.com/dvv/



Appendix I



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List of Quality Audits on Environment and Energy

The following Audits have been done at Institute of Management Studies, Noida.

1. Environmental / Green Campus Audit
2. Energy & Renewable Energy Audit

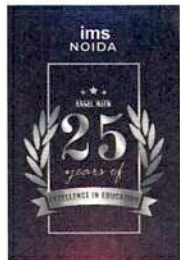


Appendix II



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Policy Document On Environment and Energy Usage





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Policy Document On Environment and Energy Usage

The Environment and Energy Policy of Institute of Management Studies, Noida is to manage energy in such a systematic way so as to minimize its impact on the environment. The policy implies to explore the renewable energy resources to reduce the burden of the government and to find out substitute natural resources as solutions to the energy crisis.

This environment and energy policy is binding for all the components of the institution and applies to all its stakeholders and to the various activities undertaken by the institution. It will help us to embed efficiency and environmental awareness into our everyday activities, thus helping us to realize our responsibilities and commitment to conservation of natural resources and to limit its usage. The Extension & Outreach Cell of IMS Noida, an platform devoted to the cause of environmental awareness, to undertake green initiatives, and to conduct green literacy programmes to save energy and to protect the environment.

Policies:

- To assess our energy usage and measure its impact on the environment.
- To count CO2 emissions generated by our means of transportations – vehicles.
- To Reduce local air pollution emissions using environment- friendly vehicles, including bicycles, Public transportation and use of pedestrian – friendly roads,
- To install photovoltaic solar panels for the generation of alternate energy.
- To install LED bulbs in the complete campus to save energy.
- To develop systematic waste management mechanism.
- To develop rain water harvesting unit.
- To undertake tree plantation drive.
- To take additional measures to continuously improve our energy consumption.
- To develop and maintain an environmental management system which is ISO: 14001 and an Energy management system based on ISO:50001.
- To ensure the availability of necessary resources to achieve our objectives.
- To encourage use of advanced technology to minimize energy consumption, atmospheric emissions and noise, particularly from our vehicle fleets.





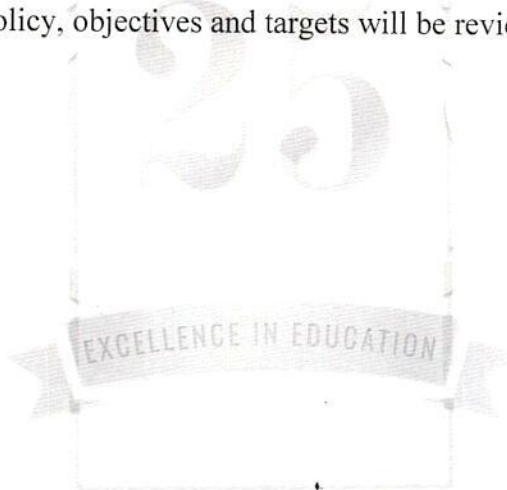
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- To engage in dialogue with the government agencies, municipal corporation and the affiliating university and actively work with the local organizations in the areas of Environment energy efficiency and sustainable development.
- To monitor and respond to emerging environmental and energy issues. To strengthen our employees' and students' environmental knowledge and skills in order to improve our own environmental performance.
- To provide information and training opportunities on energy saving measures.
- To offer opportunities for employees and students to engage in initiatives those contribute to environmental protection.
- To train our employees and students through our Extension & Outreach Cell to make them **'Go Green Specialists'** and partners to plant trees each year.

This policy will be communicated to the students and employees via internal communication channels, and will be made available to all the stakeholders on the institutional website. The Environment and Energy policy, objectives and targets will be reviewed on a regular basis by the IQAC.



Appendix III



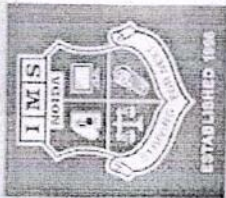
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7.1.3: 3. Clean and Green Campus Initiatives and Beyond the Campus Environmental Promotional and Sustainability Activities

S. No.	Name of the activity	Organising unit/ agency/ collaborating agency	Year	Date & Year of the activity
1	Street Play on World Water Day	Namami Gange Mission	2021-22	March22,2022
2	Tree Plantation	SOIT, IMS Noida	2021-22	13TH AUGUST 2021
3	Save Birds	SOIT, IMS Noida	2021-22	20TH MARCH 2022
4	Swachhta Diwas, Parthala Khanjarpur	SOIT, IMS Noida	2021-22	12TH MAY 2022
5	Go-Green Slogan Making Competition	SOIT, IMS Noida	2020-21	December24,2020
6	Tree Plantation Drive	SOIT, IMS Noida	2020-21	February10,2021
7	Globel Hand Washing Day	Extension and Outreach Cell,IMS Noida	2020-21	October12,2020
8	World Water Day	SOIT, IMS Noida	2020-21	22ND MARCH 2021
9	Healthy and Clean village Campaign, Khor	SOIT, IMS Noida	2020-21	14TH MARCH 2021
10	Eco-Ganesha Art Competition	IMS NOIDA	2019-20	September11,2019
11	Article Writing Competition "Environment pollution and Benefits of	Social Awarness Club, IMS Noida	2018-19	July 10,2018
12	Tree Plantation Drive	Social Awarness Club, IMS Noida	2018-19	July28,2018
13	Tree Plantation	Extension and Outreach Cell IMS Noida	2017-18	July 27 ,2017
14	Save Humanity Save Future	Social Awarness Club, IMS Noida	2017-18	August2,2017
15	Swachh Bharat Abhiyaan	Extension and Outreach Cell IMS Noida	2017-18	September 16,2017



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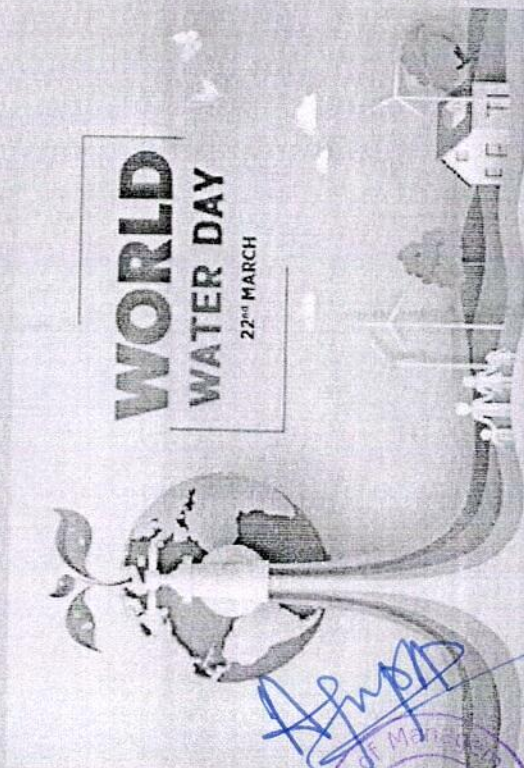
Internal Quality Assurance Cell (IQAC)

Namami Gange Mission






IS
ORGANISING

Street Play on World Water Day



Date: March 22, 2022
Timing: 10:00 AM to 02:00 PM
Venue: Connaught Place New Delhi
Resource Person: Shree Pralhad Singh Patel,
Minister of State for Jal Shakti



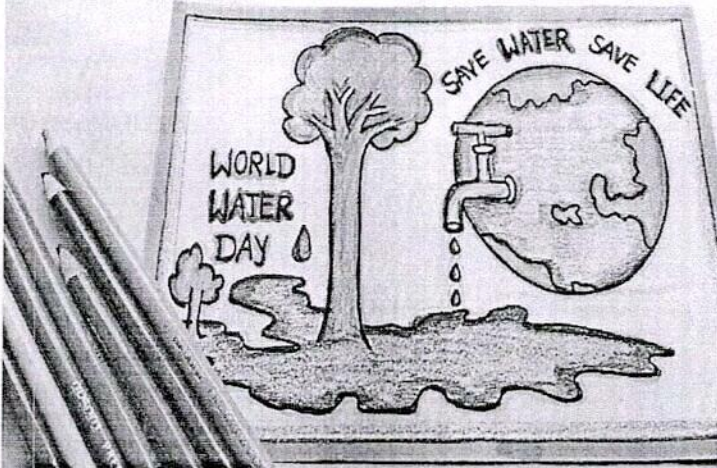
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Report	
Academic Year	2021-2022
Name of the Activity	Street Play on World Water Day
Date of the Activity	March 22, 2022
Organized By	School of Journalism and Mass Communication (SJMC), IMS Noida, Namami Gange, Ministry of Jal Shakti, Government of India along with APAC News Network
Number of Participants	43
Resource Person	Shree Prahlad Singh Patel, Minister of State for Jal Shakti, Sand Artist Rajat Kumar, Dr. Vijayta Taneja
Objective	The core objective of this activity was to <ul style="list-style-type: none"> To aware the people about Water Pollution. Create awareness amongst the society about the ways by which water can be saved. Develop their skill of public speaking and acting.
Brief Report	On the celebratory occasion of World Water Day, Namami Gange, Ministry of Jal Shakti, Government of India along with APAC News Network organized a mesmerizing event to celebrate the efforts made by the government and educational institutes to breathe a new life into Ganga and other rivers at NDMC Convention Centre, New Delhi. Under the guidance of Dean Academics Dr Manju Gupta, 43 students from SJMC and SoL participated in the event. The day was celebrated to demonstrate and appreciate how the Indian educational institutions are actively involved in instilling the notion of environmental stewardship, notably river rejuvenation, in their students who are the future of India.
	

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	<p>The event was quadrupled by the presence of the honorable state minister Shree Prahlad Singh Patel, Minister of State for Jal Shakti, as chief guest. The celebration started with the Kalash sthapana ceremony and went on with the speeches of several scholars. After a few addressing speeches, renowned sand artist Rajat Kumar amused the audience with his breathtaking sand art performance. Soon, chief guest Shree Prahlad Singh Patel was invited to address the gathering. He started his speech by welcoming all the people present in the audience and went on while explaining the importance of water conservation in the life of the youth of India. He also made the audience pledge to work for water conservation. He also felicitated Deans and Vice Chancellors of several educational institutions.</p> <p>Thereafter, students of SJMC, IMS Noida under the guidance of faculty member Dr. Vijayta Taneja, presented a Nukkad Natak on the theme of the importance of water conservation from pollution. The students were appreciated for their energetic performance. The function ended with a beautiful song composed on the theme of Namami Gange.</p>
<p>Outcomes</p>	<p>By the end of the program, the students were able to:</p> <ul style="list-style-type: none"> • Get an experience of creating awareness through street play as a medium of communication. • Upgrade their skills of communication and public speaking. • The various tools and medium available which can be employed in educating the masses about common and important social issues like Water conservation and clean Ganga.
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p>  <p>New Delhi, Delhi, भारत 15, Sansad Marg, Hanuman Road Area, Connaught Place, New Delhi, Delhi 110001, भारत Lat 28.628321° Long 77.214849° 22/03/22 12:20 PM</p>

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Director
Institute of Management Studies
NOIDA



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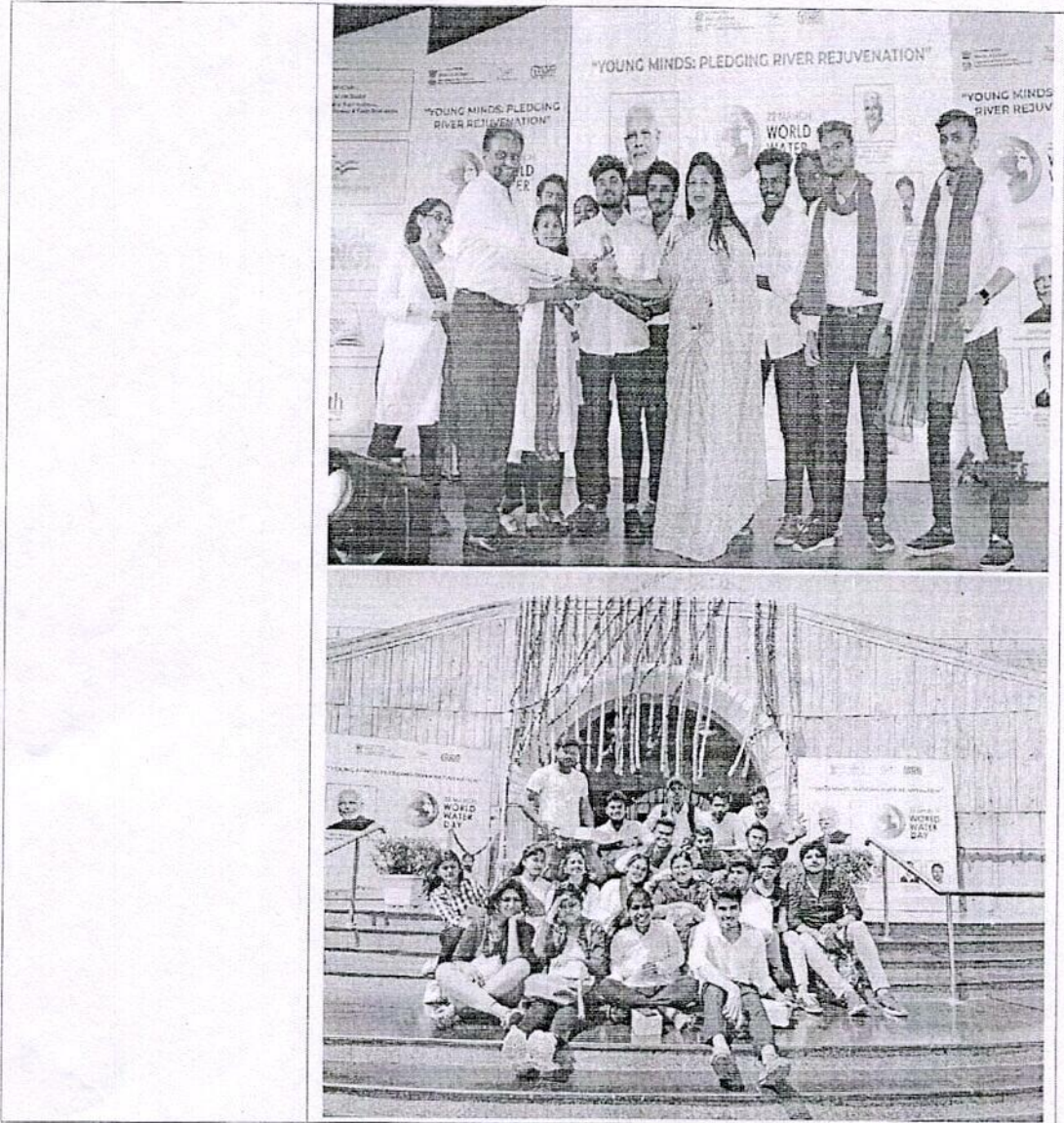
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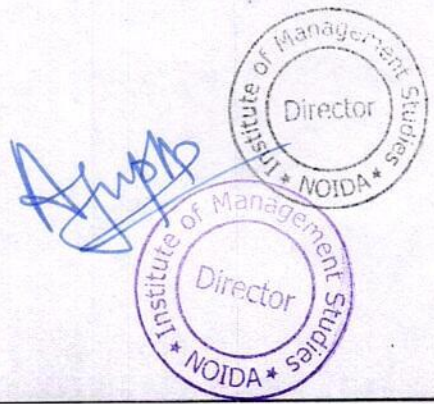
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Internal Quality Assurance Cell (IQAC)

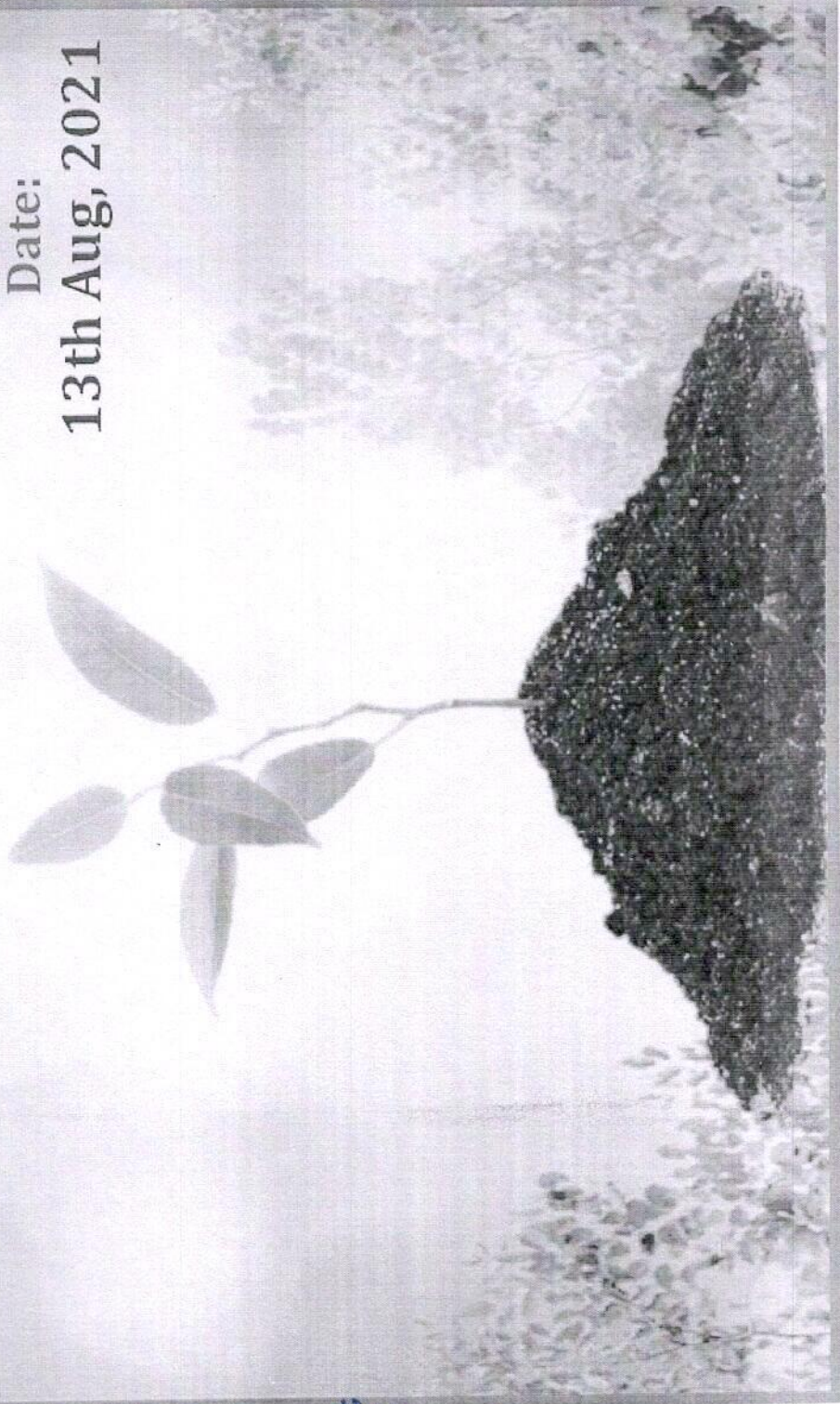


School of Information Technology

Organizes

Tree Plantation

Date:
13th Aug, 2021



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Director
Institute of Management Studies
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Tree Plantation	
Academic Year	2021 - 22
Name of the Event	Tree Plantation
Date of the Event	13 th August 2021
Organized By	School of IT , IMS Noida
Number of Participants	45
Objective	The objective of tree plantation is to know the value of environment, benefits of trees, beautification in and around the school. Tree plantation is a great way to increase students' interest in their local environment and achieve academic goals.
Brief Report	School of IT, IMS Noida organized Tree Plantation Program" on 13 August 2021 in DIA campus . The main purpose of this event was to nurture the nature and to minimize the effect of global warming. We must spread awareness about tree plantation and conservation in citizens regarding cleanliness and it's benefits. Under this program students of BCA planted more than 200 oxygen and herbal plants such as neem,peepal ,tulsi etc..All faculty members, non teaching staff and students participated in tree plantation event.
Outcome	Trees reduce the amount of storm water runoff, which reduces erosion and pollution in our waterways and may reduce the effects of flooding. Many species of wildlife depend on trees for habitat. Trees provide food, protection, and homes for many birds and mammals.

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Director
Institute of Management Studies
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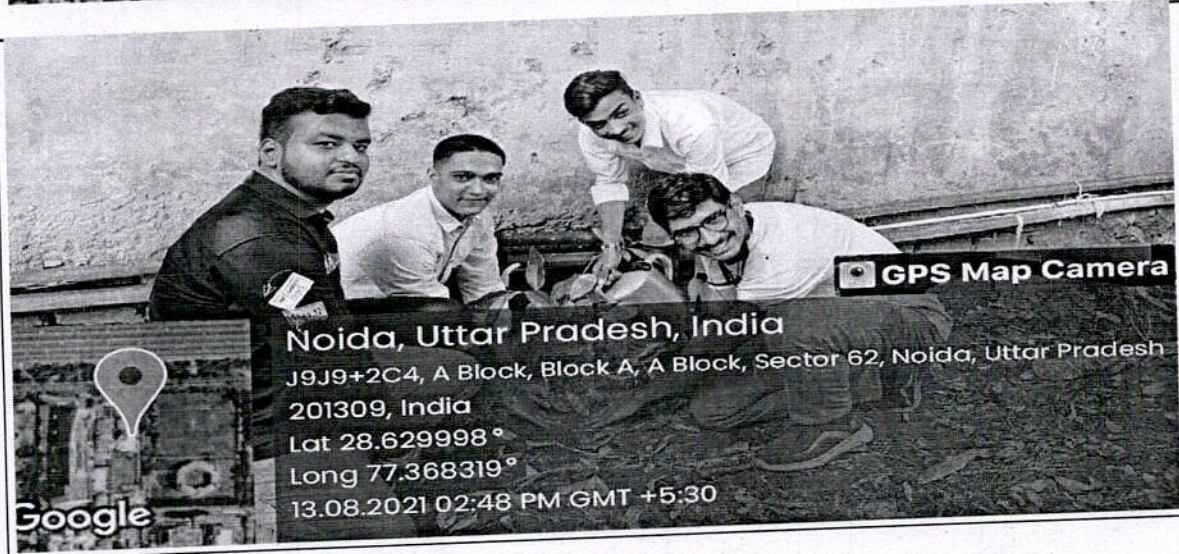
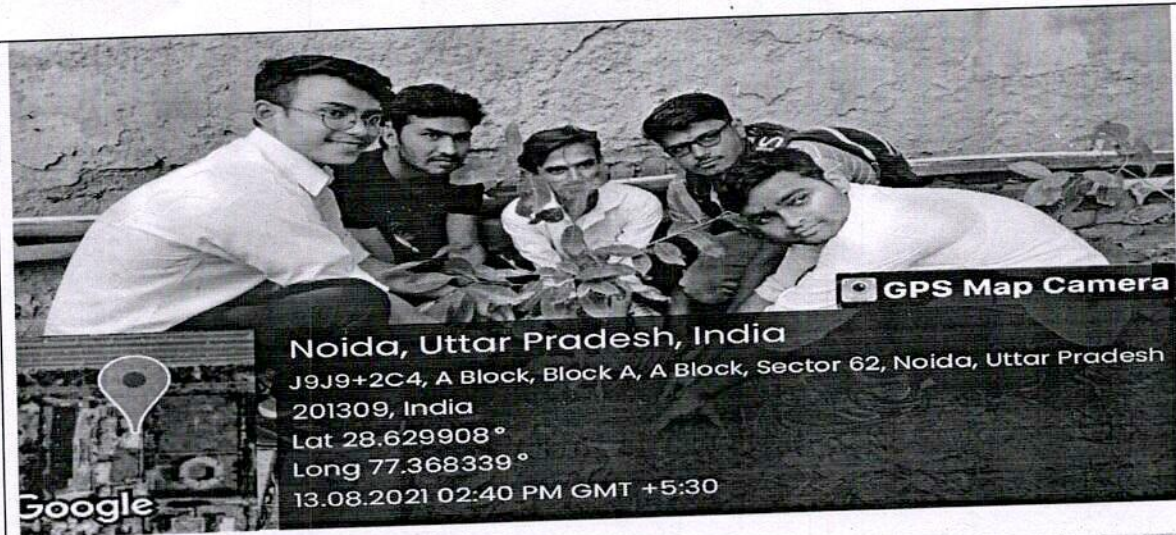
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Rohit Kumar

HOD

M. Singh
Director

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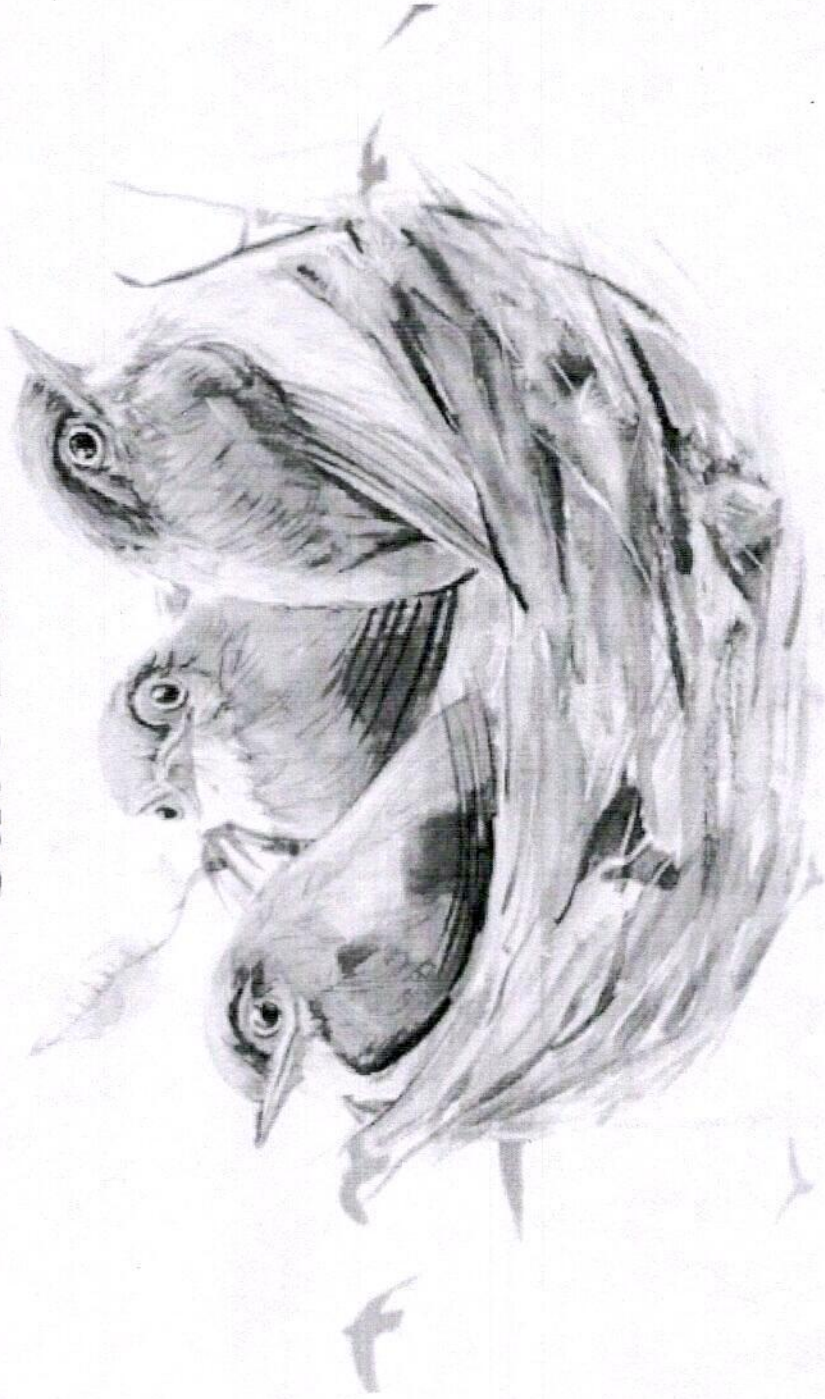
Internal Quality Assurance Cell (IQAC)



School of Information Technology

Organizes

Save Birds



Date:
20th Mar, 2022

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Director
Institute of Management Studies
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Save Birds	
Academic Year	2021 - 22
Name of the Event	Save Birds
Date of the Event	20 TH March 2022
Organized By	School of IT , IMS Noida
Number of Participants	25
Objective	The objectives of Save Birds event is that birds contribute to human health, improve agricultural production, generate millions of dollars in ecotourism revenue, and serve as indicators of environmental well-being.
Brief Report	School of IT , IMS Noida organized "Save Birds" on 20 March 2022 in college campus . The aim of this event is to protect the remaining population of endangered species by banning hunting, giving legal protection to their habitats and finally, restricting wildlife trade. . Under this program 25 students of BCA participated. They told wild birds are an integral part of the ecosystem and serve many important purposes, including insect and rodent population control, distribution of seeds that leads to forest conservation and food sources for bird predators. The main objective of the Wildlife Protection Act is to prevent illegal hunting, poaching, and trade in wildlife and its derivative parts.
Outcome	Birds are important members of many ecosystems. They play a vital role in controlling pests, acting as pollinators, and maintaining island ecology. In addition, birds are important to humans in many ways, such as serving as a source of food and providing fertilizer in agricultural settings.






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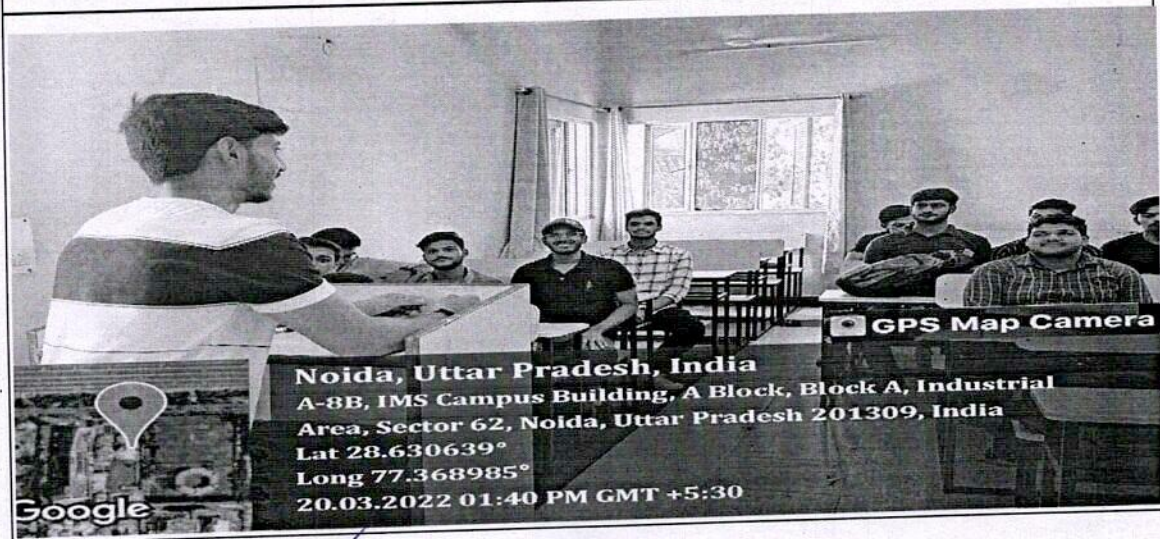
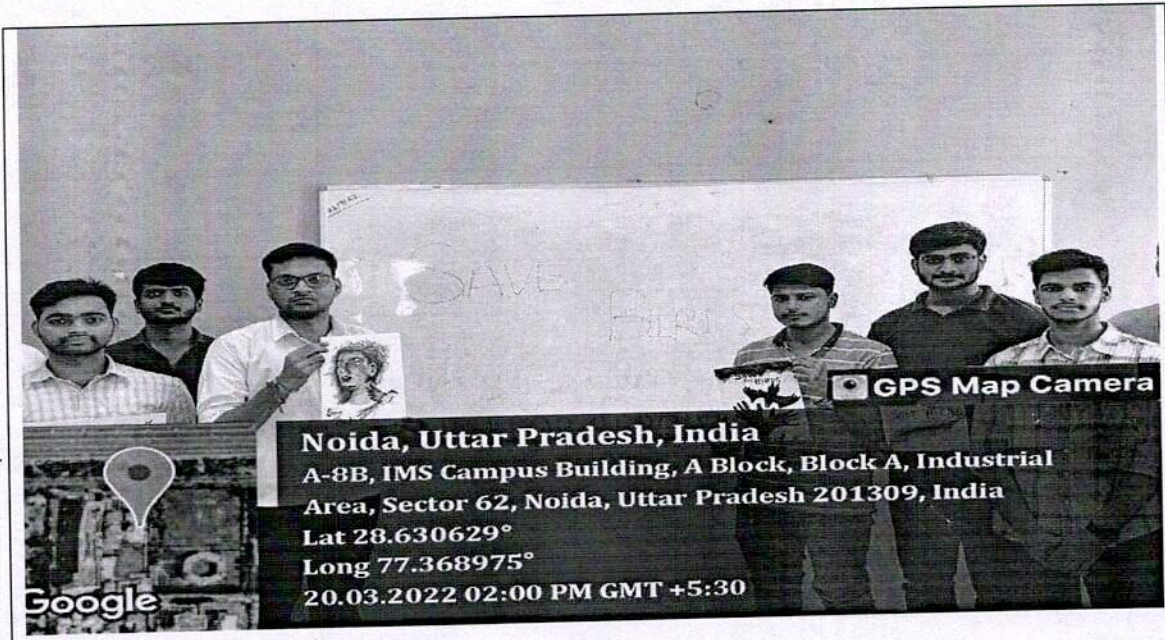
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Rohit Kumar

HOD

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Director





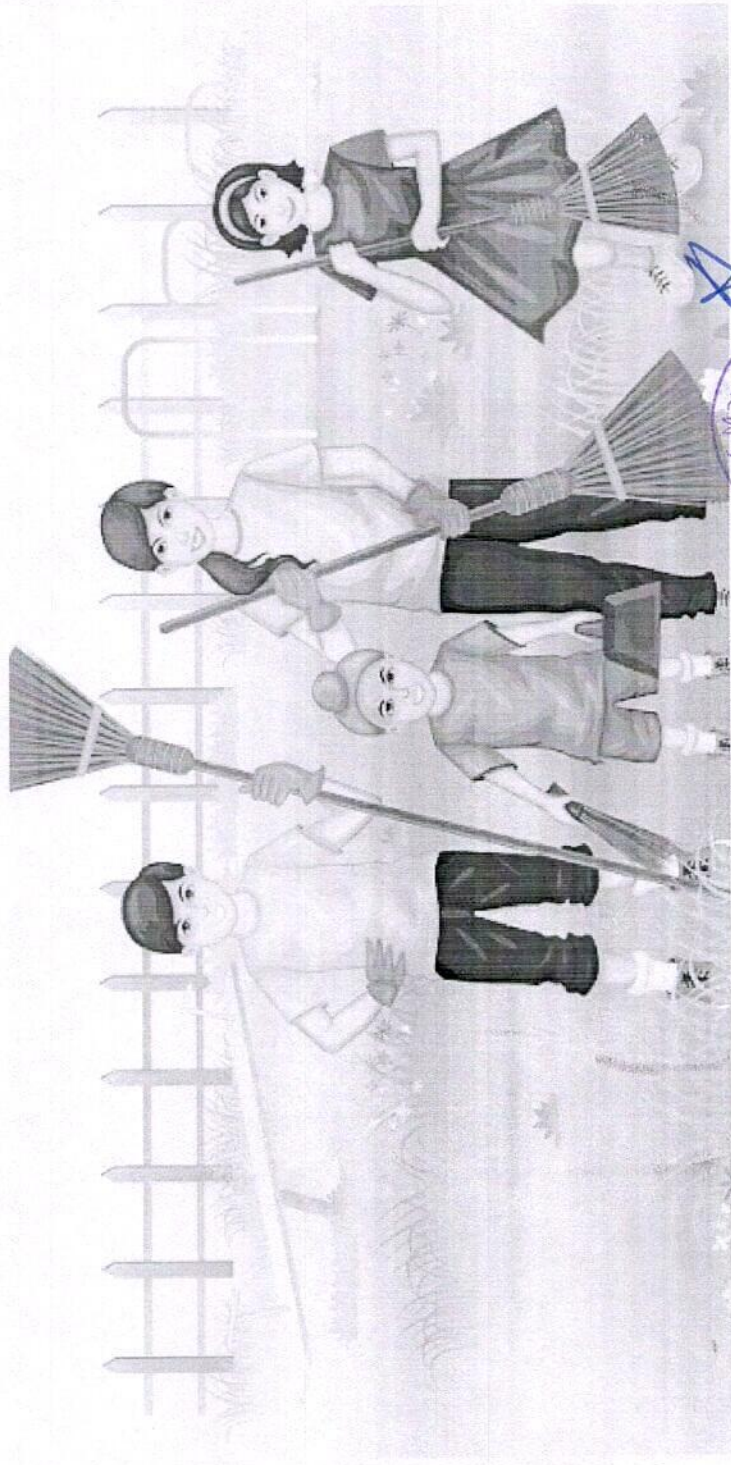
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Internal Quality Assurance Cell (IQAC)



School of Information Technology

Organizes

Swachhta Diwas






Date:
12th May, 2022



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Swachhta Diwas	
Academic Year	2021- 22
Name of the Event	Swachhta Diwas,
Date of the Event	12 th May 2022
Organized By	School of IT , IMS Noida
Number of Participants	35
Objective	To create awareness among communities towards sanitation and cleanliness. To bring about behavioral changes in the people towards sanitation and hygiene. Motivating the communities for adopting a proper sanitation model for better health and life.
Brief Report	School of IT , IMS Noida organized "SwachhaDivas" on 12 May 2022 in ParthalaKhanjarpur Noida. The main purpose of this event was to create awareness in citizens regarding cleanliness and it's benefits. The students encouraged to dispose the garbage properly and wisely. Under this program 35 students of BCA participated.
Outcome	The campaign focuses on creating awareness about the importance of cleanliness and hygiene and encouraging citizens to take responsibility for keeping their surroundings clean.






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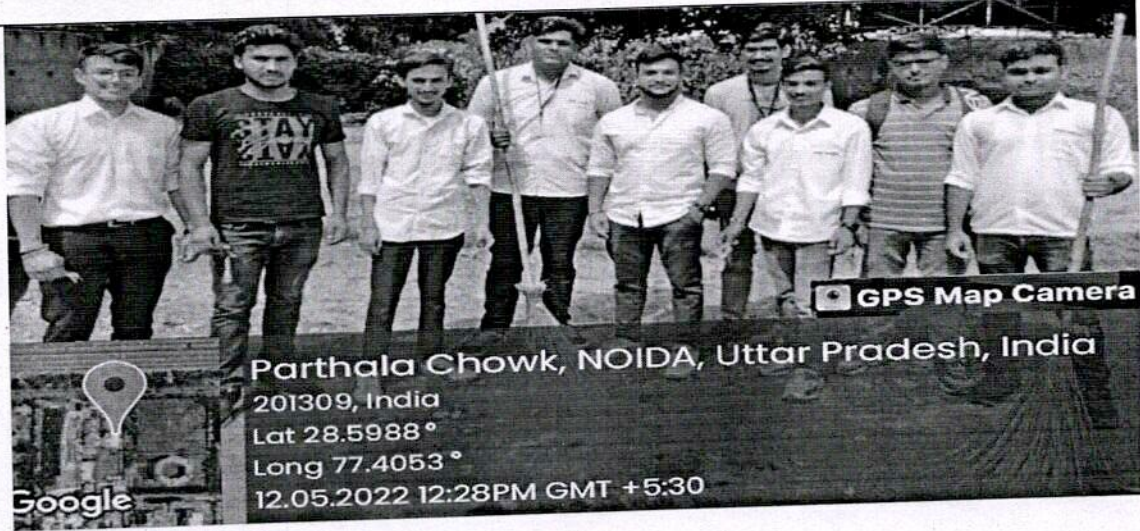
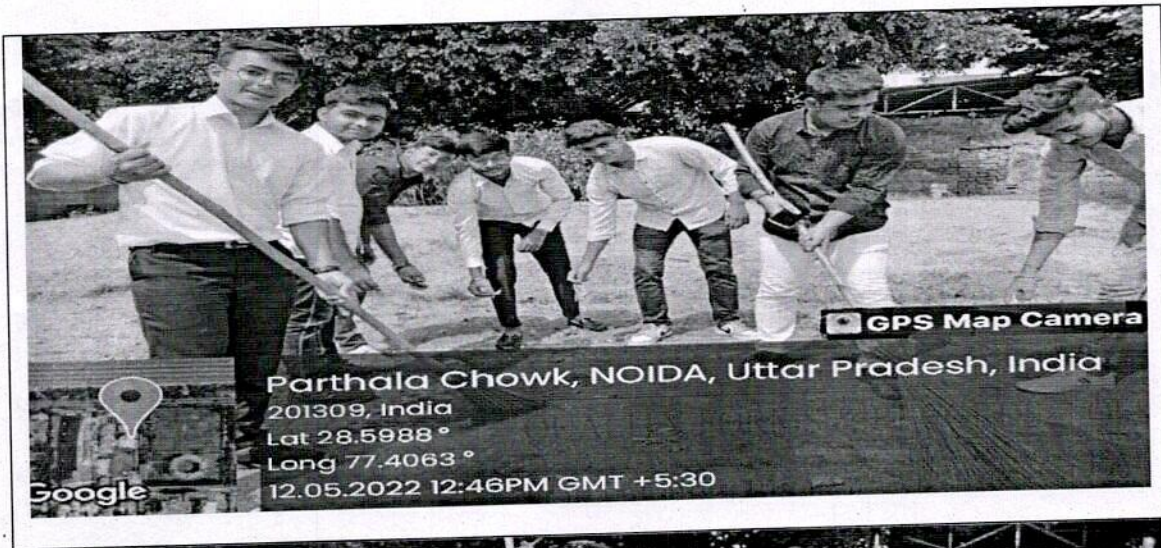
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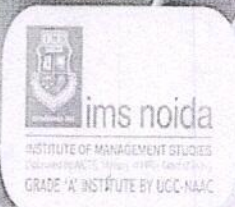


Rohit Kumar

HOD

P. Singh
Director

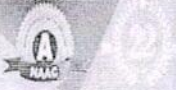




Under the AEGIS of Social Awareness Club

School Of IT

organising Express-IT



Slogen writting with collage Making
competition on the theme GO GREEN



Last date of submission is :- 22nd Dec 2020 | Result will be announced by 24th dec 2020

Certificate of participation will be given to all participants
Winners will be awarded with certificate of Achievement.

Under The Guidance of

Dr Manju Gupta
Dean Academics, IMS Noida
Ms Priti Nani Rajwansi
HOD-SOI

Event Co-ordinator

Dr Anita Pari
Asst. Professor SOIT

Student Co-ordinators

Vishal Kumar (+91859967647)
Shefali Bavada (+917827998073)
Maina Sharma (+916860473773)



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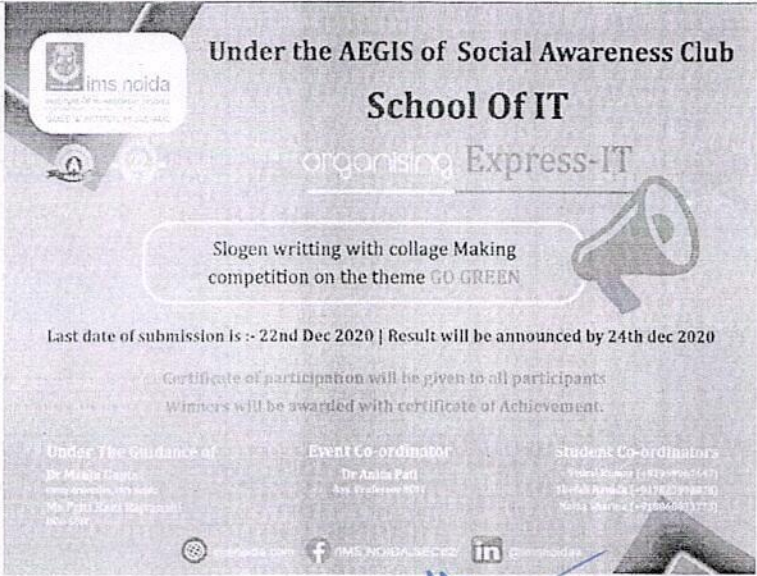
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Report	
Academic Year	2020-2021
Name of the Activity	Go-Green Slogan Making Competition
Date of the Activity	December 24, 2020
Organized By	SOIT, IMS Noida
Number of Participants	20
Resource Person	Dr. Manju Gupta (Dean Academics, IMS Noida)
Objective	To learn the effective ways to reduce pollution, reduce resources consumption and eliminate wastes, conserve natural resources and forests and maintain the natural ecological balance on earth so that all living things can survive and thrive in their natural habitat.
Brief Report	<p>On December 24, 2020, School of IT, IMS NOIDA, organized a Slogan Making competition Event. The competition was organized under the guidance of Dr Anita Pati along with the joint efforts of a group of student coordinators (Vishal kumar, Shefali Ravada, Naina Sharma BCA 3B).</p> <p>Ms. Manju shared her views on importance of plants in helping to cool urban areas and mitigate the urban heat island effect; green spaces also help addressing air pollution by reducing the formation of photochemical ozone. Shade provided by urban trees also reduces energy demand, indirectly contributing to improved air quality. Greenery in our living environment benefits more than just our health and well-being. It also facilitates water management and promotes biodiversity in built-up areas, and can help reduce the effects of noise pollution. Greenery also helps to raise the property value of homes and offices...</p>

Anita Pati
 Institute of Management Studies
 Director
 NOIDA



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	<p>The students participated in the event with a great zeal and enthusiasm. It was a quite learning and quite new exposure as pollution is a great challenge in NCR and other major cities in India. In later part of event winner was selected. The students enjoyed the theme of the event and represented fully the possible outcomes with their ideas in their slogans with the greenery collage making event .Honorable Dean Academics and Dean SOIT congratulated the participants for their active participation and hard work and later announced the results followed by certificates to the winners.</p> <p>To conclude the event Dr.Anita Pati thanked and expressed her heartfelt gratitude towards Dr Manju Gupata (Dean Academics)(Dean ,SOIT) and Ms Priti Rani Rajvanshi (HOD,BCA & MCA) who provided s a great opportunity to be part of such an exciting Event she also express her gratitude to all the faculty members and coordinators of the event to make it a successful one.</p> <p>The students were really thankful to Dr. Manju Gupta(dean Academics) & Ms. Priti Rani Rajvanshi (HOD,BCA & MCA,SOIT)for organizing such sociable events in IMS Noida which will really be helpful to them in their future professional growth. The winner of the event was Kartik Makharia (BCA 3A)</p>
<p>Outcomes</p>	<p>Students learnt about the effective ways as how we can reduce pollution, reduce resources consumption and eliminate wastes, conserve natural resources and forests and maintain the natural ecological balance</p>
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p> 

Anita Pati
 Director
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Under the AIGIS of Social Awareness Club
School OF IT
Express It
Single Writing or to deliver Making competition for the theme: "Green"
Last date of submission is 23rd Dec 2024. Names will be announced by 24th Dec 2024

Mother Earth is
Going to Get Mean if
you Don't Go Green

1st

KARTIK MAKHARIA
BCA 2nd Year

Organized By: Dr. Anita Pati,
Assistant Professor, SOIT

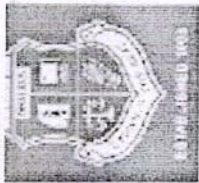
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Anita
HOD/PC

Anita
Director/Principal



Anita



Institute of Management Studies Noida

Internal Quality Assurance Cell (IQAC)

SOIT, IMS NOIDA



IS

Organising

Tree Plantation Drive

(Awareness Program)



Date : February 10, 2021

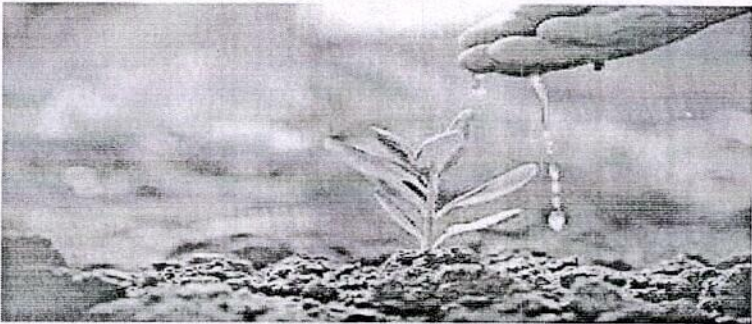
Timing : 9.30 AM to 11.00 AM


Venue : Ims Campus

Resource Person : Ms. Manju Gupta

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Report	
Academic Year	2020- 21
Name of the Activity	Tree Plantation Drive
Date of the Activity	February10,2021
Organized By	SOIT, IMS Noida
Number of Participants	30
Resource Person	Dr. Manju Gupta
Objective	To aware the students about the need of Tree plantation “ It is not just something that should be done, instead, it is a necessity, the urgent need of the hour”
Brief Report	<p>The institute organized Tree Plantation drive on February10, 2021. Dr. Manju Gupta addressed the volunteers about the role of trees in human life. Faculty and Staff had participated in the plantation programme with great Enthusiasm. She also mentioned that we should take utmost care of environment.</p> <p>Planting of trees is especially important to protect our environment against air pollution and global warming. Trees have supported and sustained life throughout our existence. They have a wide range of practical and commercial uses. Trees are important for physical and mental wellness. A view of trees and green spaces from hospital windows has been found to increase the healing of patients, decrease our stress, and children do much better in school when they have a view of trees and green space and can spend time playing in nature.</p>  <p>She also explained that you can grow your own fruit or nuts in your backyard. By planting fruit or nut trees in your yard, you can produce abundant food for yourself and your family, and perhaps even enough to share with friends, neighbors, other family members, and others in your community. Trees produce many important products that we use in our</p>



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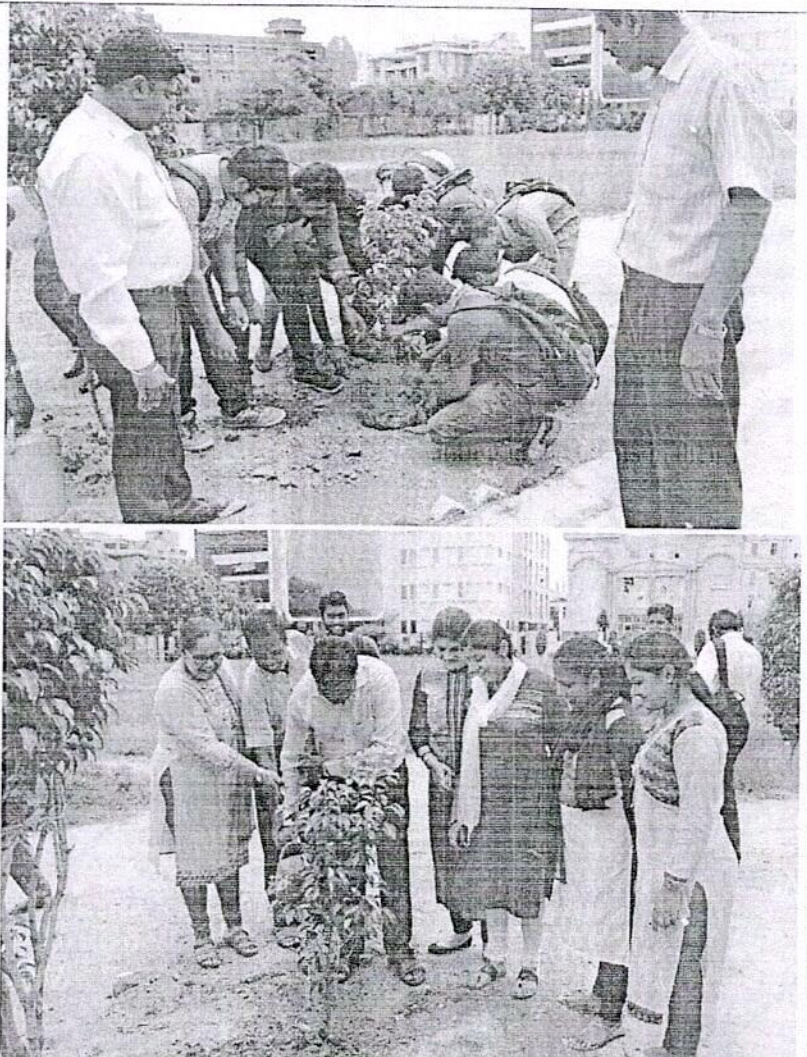
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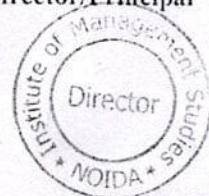
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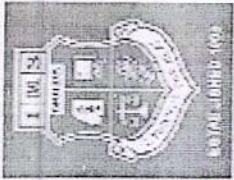
	<p>daily lives, including wood, medicine, and food.</p> <p>The drive was a huge success, empowering students with substantial knowledge of environment and plants.</p>
Outcomes	Students learnt about the importance planting green plants in their life.
Photographs/Newspaper Cutting of the Event	<p>Photographs/Newspaper Cutting of the Event</p> 

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Director/Principal

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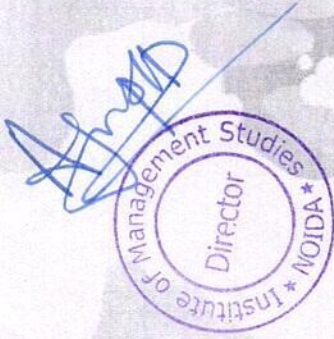
Internal Quality Assurance Cell (IQAC)

Extension and Outreach Cell



IS Organising Global Hand Washing Day

(Radio Program)



Date : October 12, 2020

Timing : 10.00 AM to 12.30 PM

Venue : Online

Resource Person : P Dayashankar Singh, Dr. Nepal Singh, Poonam Tiwari, Dr. Sheenu Sanjib

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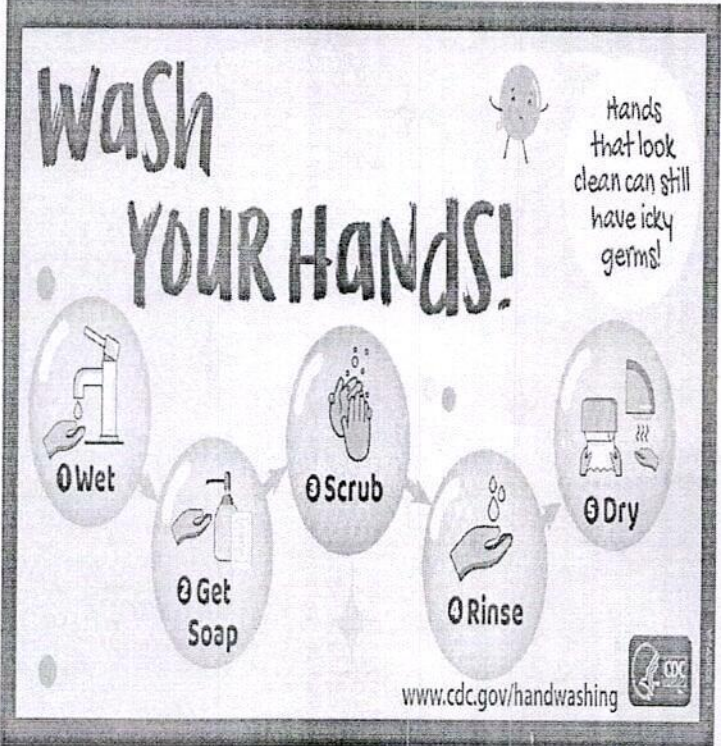
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Report	
Academic Year	2020-2021
Name of the Activity	Global Hand Washing Day
Date of the Activity	October 12, 2020
Organized By	Extension and Outreach Cell, IMS Noida
Number of Participants	40
Resource Person	UNICEF U.P. Dayashankar Singh, SCMO Dr. Nepal Singh, DPO Poonam Tiwari, Dietician and Nutritionist Dr. Sheenu Sanjib
Objective	The campaign aims to galvanize action at the point of care to demonstrate that hand hygiene is the entrance door for reducing health care-associated infection and patient safety. It also aims to demonstrate the world's commitment to this priority area of health care.
Brief Report	<p>On October 12, 2022 Extension and Outreach Cell, IMS Noida has organized the session on "Global Hand Washing Day" for Community and student groups. This radio session was organized under the profound guidance of Prof. (Dr.) Manju Gupta, Dean Academics and Dr Pankaj Agarwal (Associate Prof) IMS Noida.</p> <p>Mr. Dayashankar expressed his views on this Handwashing campaign and said life is Better with Clean Hands, a new national campaign designed to motivate adults to make clean hands.</p> 

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	<p>WHO calls on everyone to be inspired by the global movement to achieve universal health coverage (UHC), i.e. achieving better health and well-being for all people at all ages, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.</p> <p>Dr. Nepal Singh said Ten months into the pandemic, hand washing with soap remains one of our best defenses against the virus, along with other public health measures such as maintaining physical distance, avoiding crowded places, practicing cough etiquette and wearing a mask wherever recommended.</p> <p>Global Hand washing Day observed annually on October 15 to raise awareness and highlight the importance of hand washing as an effective means of disease prevention – this year marks a critical reminder for the world and the Region that this simple, cost effective practice can save lives.</p> <p>‘Hand washing has always been one of most effective ways of keeping diseases at bay. It is a simple act that pays in dividends when it comes to keeping ourselves healthy and safe. Hand washing is also one of the key cornerstones of COVID-19 prevention. Now more than ever as we embrace the new normal and live with COVID-19, hand hygiene needs to become an integral part of our daily routine and our lives, as we live through this pandemic, and beyond, to protect us from diseases,’ With COVID-19 transmission mainly spreading between people through direct, indirect (through contaminated objects or surfaces), or close contact with infected people via mouth and nose secretions, washing hands with soap and running water is of critical importance. To stop the spread of COVID-19, along with other COVID appropriate behaviors, the practice of hand washing at regular intervals is a must, after coughing or sneezing, when caring for the sick, after using the toilet, before eating, while preparing food and after handling animals or animal waste. Hand washing after touching common surfaces such as doorknobs or handles, or after one comes back home from visiting a public place will keep ourselves and others around us safe.</p> <p>Session concluded with vote of thanks given to the chief guest for conducting such an amazing and valuable session for students and community.</p>
<p>Outcomes</p>	<p>Information conveyed to understand the importance of Hand washing theme and how hand hygiene is the entrance door for reducing health care-associated infection and patient safety.</p>

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Photographs/Newspaper
Cutting of the Event

Photographs/Newspaper Cutting of the Event

युग करवट

सलाम नमस्ते में ग्लोबल हैंड वॉश-डे पर पैनल डिस्कशन

हाथों की साफ-सफाई के लिए सभी रोजक तरीके अपनाए: दयाशंकर



नोएडा (युग करवट)। सेक्टर-62 स्थित आईएमएस के सामुदायिक रेडियो सलाम नमस्ते ने ग्लोबल हैंड वॉश-डे के अवसर पर पैनल डिस्कशन का आयोजन किया। यूनिसेफ के संयुक्त तत्वावधान में आयोजित इस कार्यक्रम में हाथों की साफ-सफाई पर चर्चा की गई। इस ऑनलाइन कार्यक्रम में यूनिसेफ उत्तर प्रदेश के सीफॉरडी ऑफिसर दयाशंकर सिंह, एसीएमओ गौतमबुद्ध नगर डॉ. नेपाल सिंह, डीपीओ पूनम तिवारी, डायट और न्यूट्रिशनियन विशेषज्ञ डॉ. शीनू संजीव, स्पेश एनजीओ के कोऑर्डिनेटर डॉ. सचिन भागवत के साथ नालंदा वे फाउंडेशन की सीनियर एसोसिएट मनीशमर कौर ने अपनी उपस्थिति दर्ज कराई।

कार्यक्रम की शुरुआत करते हुए दयाशंकर सिंह ने कहा कि हाथों की साफ-सफाई के लिए सभी को सहज और रोजक तरीके अपनाने चाहिए। एक उदाहरण देते हुए उन्होंने कहा कि कविता, कहानी, पारंपरिक कला, विडियो चैलेंज, पेंटिंग, रंगोली, पोस्टर, नृत्य एवं गायन के माध्यम से हम लोगों को जागरूक कर सकते हैं। डीपीओ पूनम तिवारी ने कहा कि आंगनवाड़ी की आशा एवं गांव के लोगों में साफ-सफाई के प्रति जागरूकता के लिए सुमन के नाम से एक सहज फार्मुला बनाया गया है। उन्होंने कहा कि समुचित साफ-सफाई के लिए सौंभा हाथ, उल्टा हाथ, मुट्ठी, अंगूठ, नाखून एवं कलाई को धोना है। सलाम नमस्ते की स्टेशन हेड वर्षा छवारिया ने बताया कि यूनिसेफ के संयुक्त तत्वावधान में आयोजित कार्यक्रम में हाथों की साफ-सफाई पर विस्तृत चर्चा की गई। उन्होंने कहा कि यह कार्यक्रम मिशन कोरोना का एक हिस्सा है, जिसमें सलाम नमस्ते गांवों में स्वच्छता, मास्क की जागरूकता एवं सामाजिक दूरी के प्रति लोगों को जागरूक करेगा।

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Director
Institute of Management Studies
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SGA
Society for Global
Advancement
A Unit of IMS Noida

HANDWASH FOR ALL



Protect yourself and others from COVID-19





for every child



दैनिक

जगत क्रान्ति

सलाम नमस्ते में हैंड वॉश पर चर्चा

नोएडा - आईएमएस नोएडा के सामुदायिक रेंडियोसलाम नमस्ते 90.4 ने ग्लोबल हैंड वॉश-डे के अवसर पर पैनल डिस्कशन का आयोजन किया। यूनिसेफके संयुक्त तत्वाधान में आयोजित इस कार्यक्रम में हाथों की साफ-सफाई पर विस्तृत चर्चा की गई। वहीं सोमवार को आयोजित इस ऑनलाइन कार्यक्रम में बतौर अतिथि यूनिसेफउत्तर प्रदेश के सीकॉर्ड्री ऑफिसर दयाशंकर सिंह, एसीएमओ गौतमबुद्ध नगर डॉ. नेपालसिंह, डीपीओ गौतमबुद्ध नगर पूनम तिवारी, डायट और न्यूट्रिशियन विशेषज्ञ डॉ. थीनूसजीव, स्पर्स एनजीओ के कोडिनेटर डॉ. सविन भार्गव के साथ नालंदा वे फाउंडेशन कीसमीनियर एसोसिएट मनसिंह कौर ने अपनी उपस्थिति दर्ज कराई। कार्यक्रम की शुरुआत करते हुए दयाशंकर सिंह नेकहा कि हाथों की साफ-सफाई के लिए हम सभी को सहज और शैवक तरीके अपनाने चाहिए। एक उदाहरणदेते हुए उन्होंने कस कि कविता, कहानी, पारंपरिक कला, विडियो चैलेंज, पेंटिंग, रंगोली, पोस्टर, नृत्य एव गायन के माध्यम से हम लोगों को जागरूक कर सकते हैं। उन्होंने कहा कि भविष्य में जरूरतमंद लोगों के लिए साबुन बैक या साबुन टान घेटी बनायाजा सकता है। वहीं डीपीओ पूनम तिवारी ने कस कि आंगनवाड़ी की आशा टीटियों एव गावके लोगों में साफ-सफाई के प्रति जागरूकता के लिए सुगनके के नाम से एक सहज कार्मुनाबनाया गया है। उन्होंने कहा कि समुचित साफ-सफाई के लिए सीधा हाथ, उल्टा हाथ, मुट्ठी, अंगूठा, नाखुन एव कलाई को धोना है। वहीं सलाम नमस्ते की स्टेशन हेड बर्षा छबेरियाने बताया कि यूनिसेफ के संयुक्त तत्वाधान में आयोजित आज के कार्यक्रम में हाथों कीसाफ-सफाई पर विस्तृत चर्चा की गई। उन्होंने कहा कि यह कार्यक्रम मिशन कोरोना का एकहिससा है, जिसमें सलाम नमस्ते गांवों में स्वच्छता, मास्क की जागरूकता एवसामाजिक दूरी के प्रति लोगों को जागरूक करेगा।

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HOD/PC

Director/Principal

Director

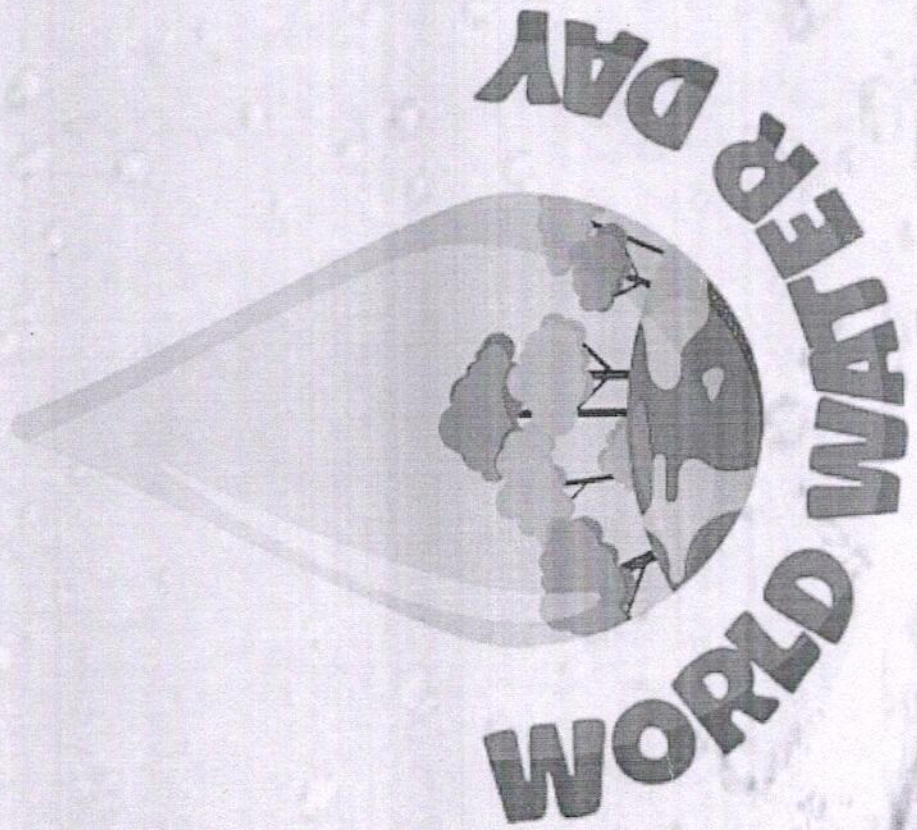
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Internal Quality Assurance Cell (IQAC)



School of Information Technology Organizes



Date:
22nd Mar, 2021






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World Water Day	
Academic Year	2020 - 21
Name of the Event	World Water Day
Date of the Event	22 March 2021
Organized By	School of IT , IMS Noida
Number of Participants	25
Objective	The objective of World Water Day is to focus attention on the importance of freshwater and advocating for the sustainable management of freshwater resources.
Brief Report	School of IT, IMS Noida organized World Water Day” on 22 March 2021 in college campus. The aim of World Water Day is to spread the word about the need to conserve fresh water and manage it mindfully. To inspire people around the world and to learn more about water-related issues in the world. Under this program 25 students of BCA participated. This year's World Water Day theme focuses on promoting activities that swiftly implement the required changes to preserve water for upcoming generations. The United Nations has developed certain sustainable development goals for 2030 to stop more than 8.2 lakh people from dying annually due to poor hygiene, inadequate sanitation, and waterborne diseases.
Outcome	The World Water Day is an opportunity to raise awareness of the global, regional and local water issues, and promote the development of solutions the achievement of Sustainable Development Goal (SDG) 6: water and sanitation for all by 2030. This year the theme of World Water Day 2021 is valuing water.

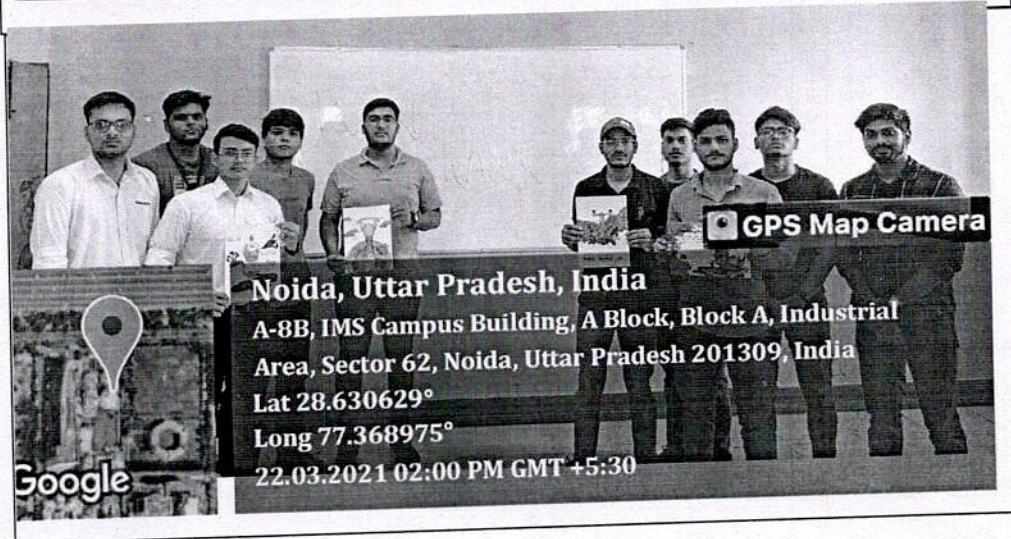
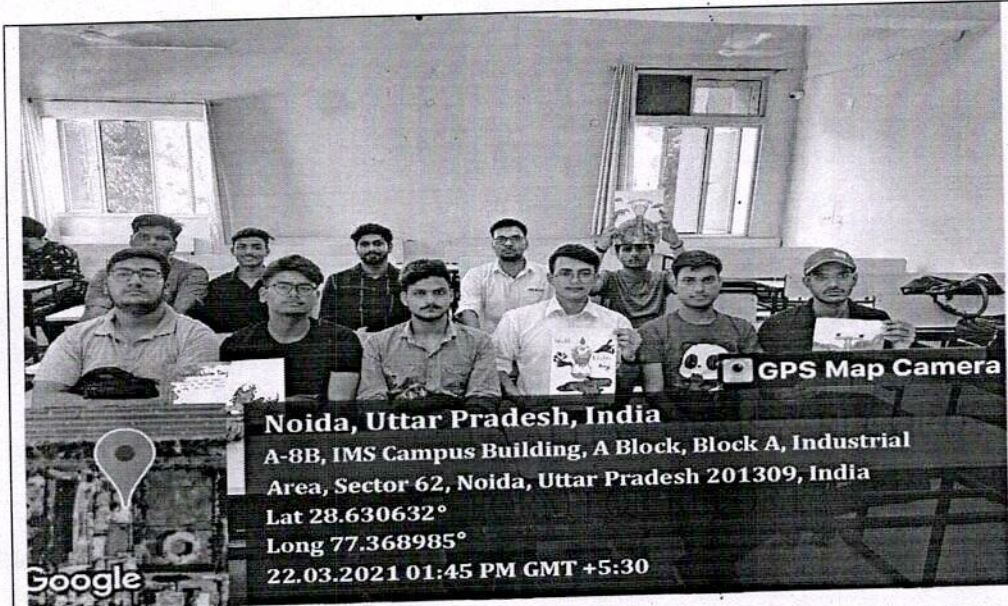




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Priti Ray
HOD

[Signature]
Director





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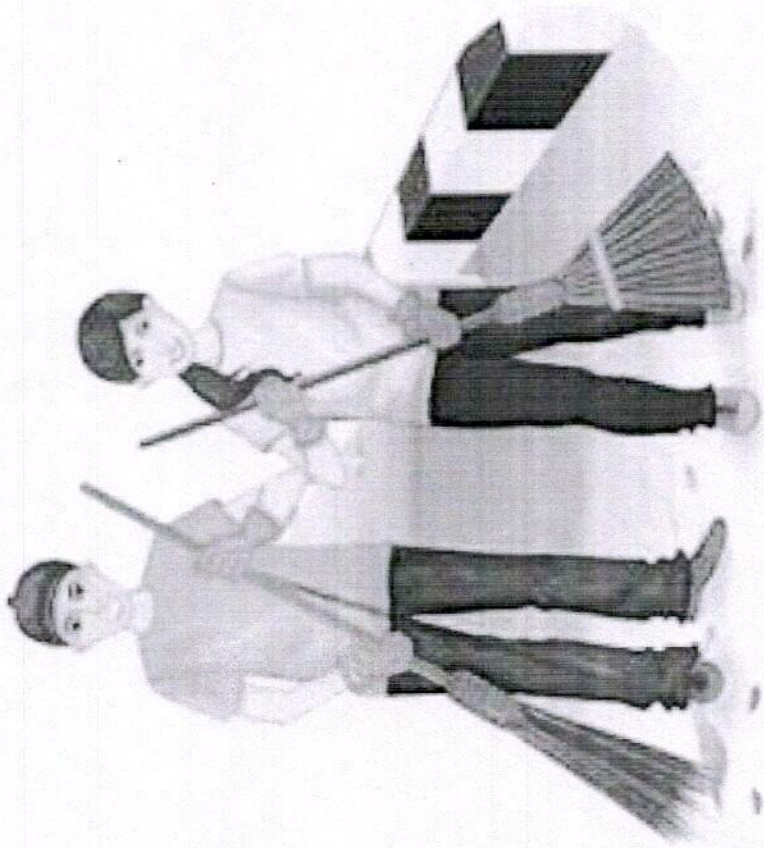
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School of Information Technology

Organizes

Healthy & Clean Village Campaign



Date:
14th March, 2021



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Healthy and Clean village Campaign	
Academic Year	2020 - 21
Name of the Event	Healthy and Clean village Campaign
Date of the Event	14 March 2021
Organized By	School of IT , IMS Noida
Number of Participants	30
Objective	To create awareness among communities towards sanitation and cleanliness. To bring about behavioral changes in the people towards sanitation and hygiene. Motivating the communities for adopting a proper sanitation model for better health and life.
Brief Report	School of IT , IMS Noida organized cleanliness drive "SwachhaBharat Abhiyaan Program" on 14 March 2021 in Khora colony Noida. The main purpose of this event was to create awareness in citizens regarding cleanliness and it's benefits. Under this program 30 students of BCA participated.
Outcome	The campaign focuses on creating awareness about the importance of cleanliness and hygiene and encouraging citizens to take responsibility for keeping their surroundings clean.






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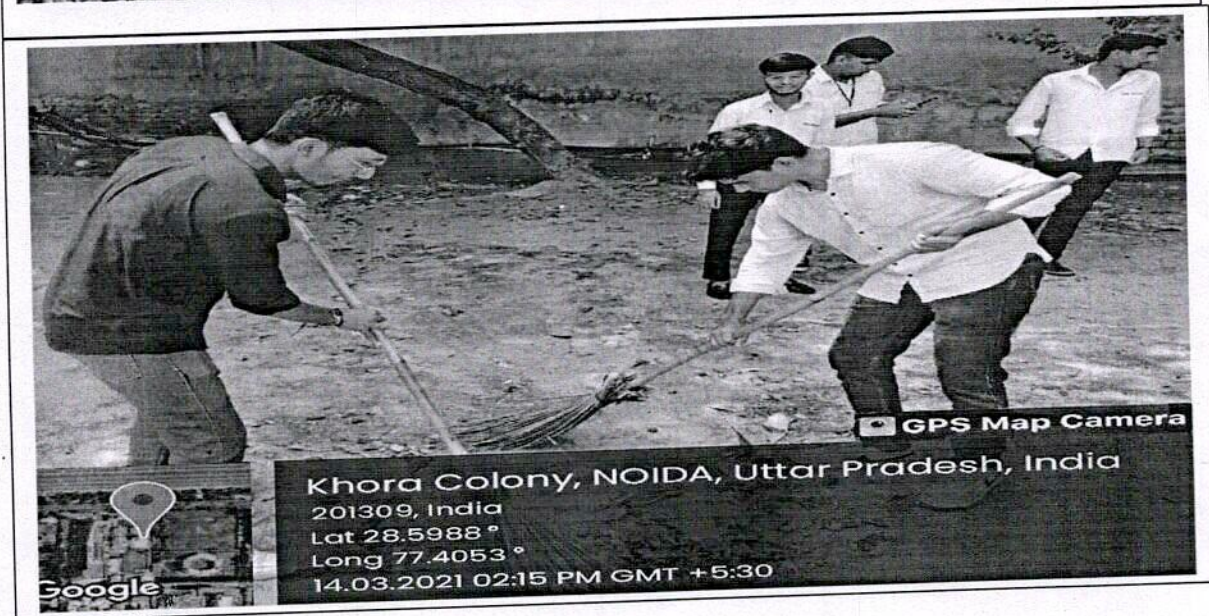
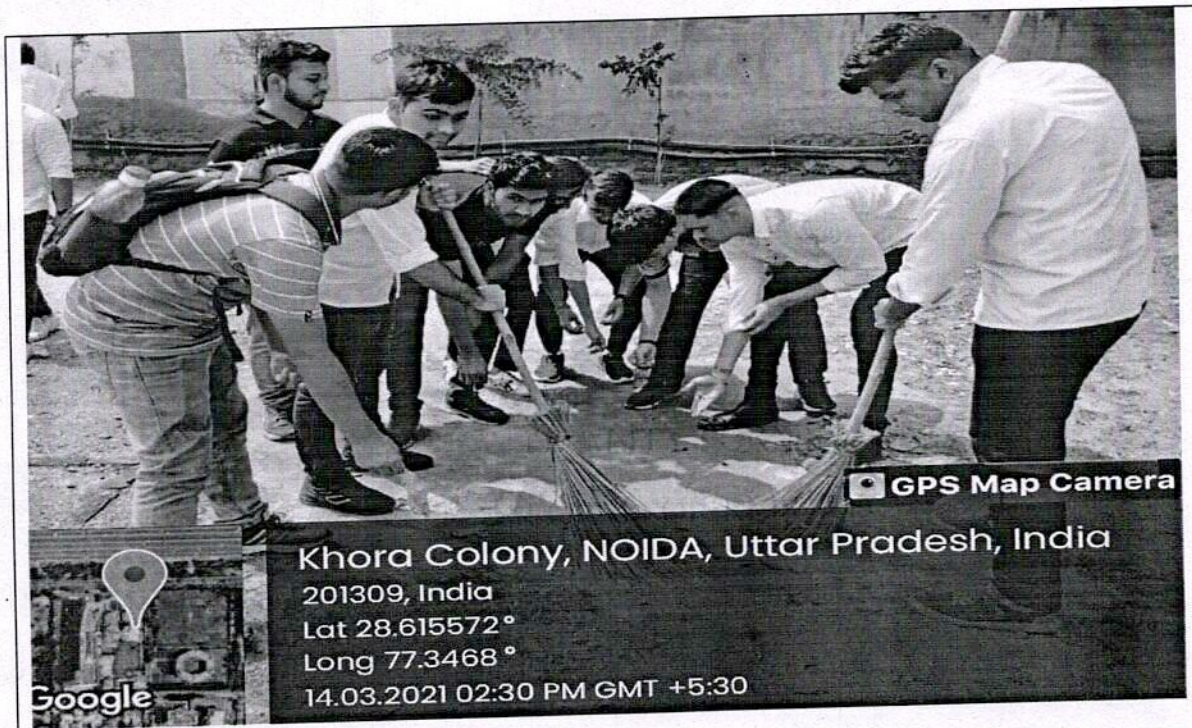
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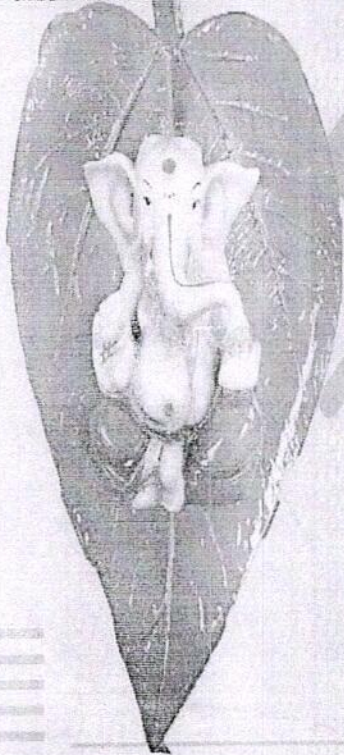
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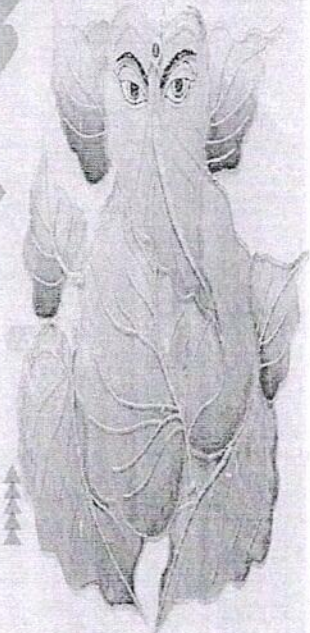
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ECO-GANESHA ART COMPETITION

HUSSAIN CLUB
(FINE ARTS CLUB)



11th September 2019
Venue- IMS SEMINAR HALL
Timings :: 2pm-4 pm

RULES AND REGULATIONS

Students can participate in making Eco-Friendly Ganesha
Art Competition -On Canvas / Clay Model / Paper Mache / Image Creation by use of Eco-Friendly Materials

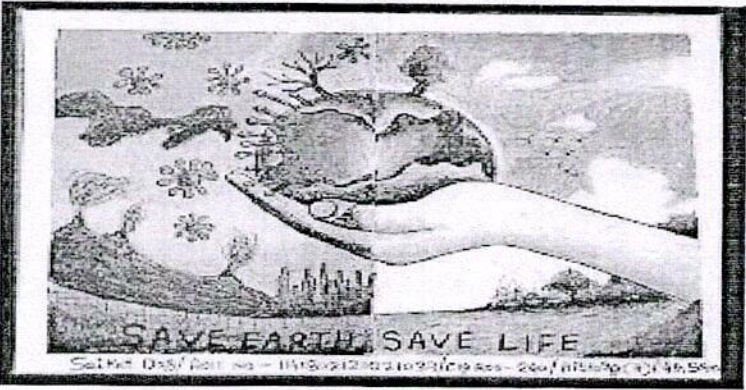
All creations should carry a message dedicated to environment.

- 1) All Participants to be certified.
- 2) The Best Creation will be awarded with a "Trophy".
- 3) Solo / Group Entries allowed.
- 4) All departments are requested to share names of students interested to participate in Solo /Group latest by 9th Sep19
- 5) All creations should engrave / put name of " Hussain Club-Fine Arts Club [IMS Noida and DIA]
- 6) Students to procure all materials of their own. Canvas, Clay etc.
- 7) All creations to be submitted back to Jury, for use or Display

Names of participants shall be given to Class Coordinators / HOD's

[Signature]
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Institute of Management Studies
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Report	
Academic Year	2019-2020
Name of the Activity	Eco-Ganesha Art Competition
Date of the Activity	September 11, 2019
Organized By	Club Activity Department ,DIA,IMS Noida
Number of Participants	35
Resource Person	Ms. Barsha Chabaria (Radio Station Head, Salaam Namaste)
Objective	To spread awareness about importance of pure environment and how to find substitutes for plastics ,metals ,chemicals to maintain the beauty of nature.
Brief Report	<p>On September 11, 2019, IMS Noida organized "Eco-Ganesha art competition" for the Students, the event started at 12 o'clock in the afternoon.Total 31 posters have been displayed by participants. The students created posters on various topics like Eco friendly substitutes ,eco friendly ganesha, etc.</p> <p>With each year passing with Ganesh Chaturthi celebrations comes huge environmental risks. Several thousands of people choose to immerse the idols in existing, already choking water bodies. While celebrating Ganesh Chaturthi, people generally neglect the impact of pollution caused by various activities performed during the festivities. Almost every Ganesha Idol immersed in water bodies is made with PoP (Plaster of Paris), plastic, and cement. The colors used for decoration contain harmful chemicals adding to the environmental pollution. The need to use eco-friendly Ganesha idols is underlined by the fact that more than 200,000 idols are immersed in the sea and other water bodies in Mumbai alone.</p>  <p>The tradition is great, and so is the sentiment attached to Ganesh Chaturthi. The rituals associated with this festival are pious and glorious. To keep celebrating Ganesh Chaturthi with the same enthusiasm, My Pooja Box has developed a safer and eco-friendly way of celebrating Ganesh Chaturthi - with a Plant-A Ganesha idol.</p>

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	<p>Plant A Ganesha idols by My Pooja Box are Eco-Friendly Ganesha Idols that showcase exquisite design and a blend of colors, reflecting the love and warmth filled in by the Indian rural artisans. These idols are made with the finest quality of clay and soil of mother earth for sitting Lord Ganpati in pretty postures, handily. These idols are painted with chemical-free colors and dissolve in the water without releasing any harmful toxins.</p> <p>Students have made beautiful posters representing the importance of the Environment, they also elucidated the Awareness that could be taken to protect the Society, they emphasized the need to impart knowledge and spread awareness about the Various Environmental Issues.</p> <p>During this event, the Student of DIA showed up their perspective and empathizes with their Creativity (Poster). The Respective Judges of the Event has selected the Students on the Bases of their Creativity Skills, Presentation Skills, Speaking Skills, Ideas, and Topic on environment etc.</p> <p>At the end the judge had evaluated the posters made in competition. Finally, Judges declared the winners for the competition.</p> <p>Winner's</p> <table border="1" data-bbox="608 949 1323 1048"> <tr> <td>First Position</td> <td>Srishti Sharma</td> </tr> <tr> <td>Second Position</td> <td>Aman Roy/Abhishek</td> </tr> <tr> <td>Third Position</td> <td>Saksham Mahnot</td> </tr> </table> <p>Judges Names 1.Ms. Bhawna Arora (PC, Law Dept.) 2.Dr. Rashi Garg (PC. Scholar Program)</p>	First Position	Srishti Sharma	Second Position	Aman Roy/Abhishek	Third Position	Saksham Mahnot
First Position	Srishti Sharma						
Second Position	Aman Roy/Abhishek						
Third Position	Saksham Mahnot						
<p>Outcomes</p>	<p>Students got awareness about the substitutes available to be explored which are environmental friendly and how to maintain the environmental beauty at its best.</p>						
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p>  <p>The poster features the IMS Noida logo at the top left. The main title is 'ECO-GANESHA ART COMPETITION' in large, bold letters, with 'HUSSAIN CLUB (FINE ARTS CLUB)' underneath. The event date is '11th September 2019', the venue is 'IMS SEMINAR HALL', and the timings are '2pm-4 pm'. Below this, there are 'RULES AND REGULATIONS' listed in small text. At the bottom, it says 'Names of participants shall be given to Class Coordinators / HOD's'. The poster also includes images of eco-friendly Ganesha idols and a leaf with a Ganesha idol on it.</p>						

Arun
 Institute of Management Studies
 Director
 NOIDA



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Rajshacharya

HOD/PC

Yash
Director/Principal



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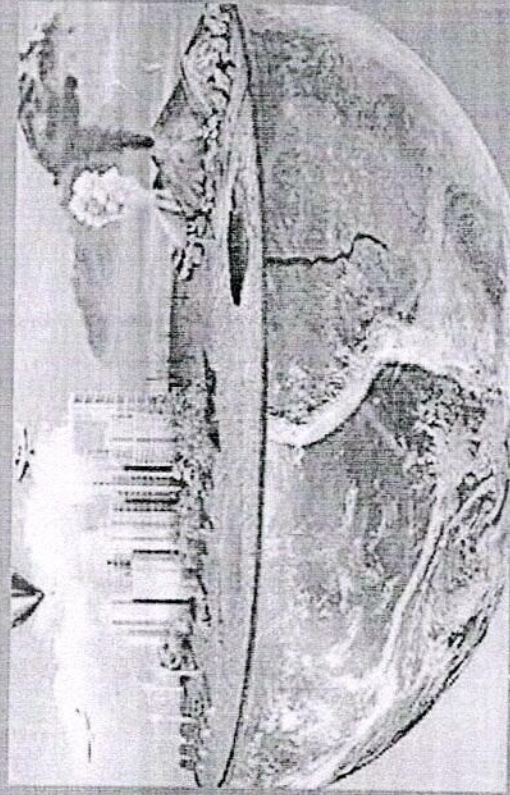
Internal Quality Assurance Cell (IQAC)

Social Awareness Club, IMS Noida



IS
ORGANISING

Environment Pollution and Benefits of Banning Poly-Bags



Date: July 10, 2018
Timing: 11:00 AM to 12:00 PM
Venue: IMS CAMPUS
Resource Person: Dr. Rohit Kumar G
Dr. Pankaj Agarwal

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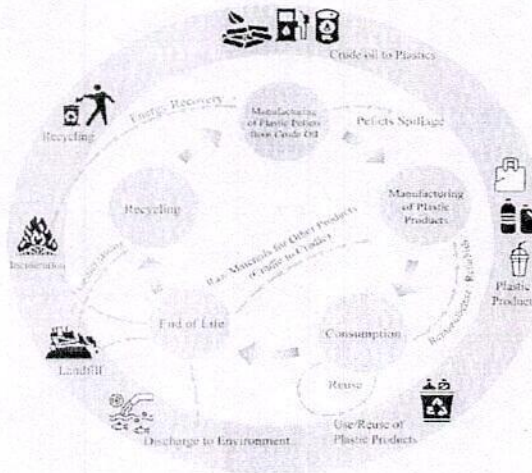
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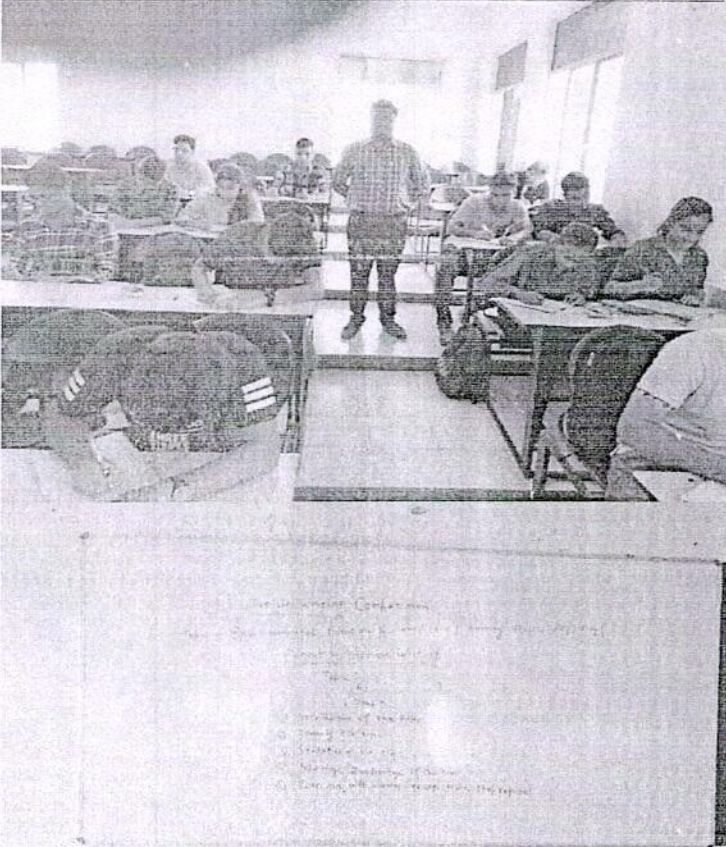


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Report	
Academic Year	2018-2019
Name of the Activity	Article Writing Competition "Environment pollution and Benefits of Banning Poly-bags
Date of the Activity	July 10, 2018
Organized By	Social Awareness Club, IMS Noida
Number of Participants	55
Resource Person	Dr. Rohit Kumar & Dr. Pankaj Agarwal
Objective	<ol style="list-style-type: none"> 1. To spread awareness about the hazards of plastic. 2. To impart knowledge about the reduction and re-use of plastic. 3. To understand the use of the alternatives of plastic. 4. To contribute towards preserving the environment and reduction of plastic pollution and ban use of polybags.
Brief Report	<p>School of IT, IMS Noida has organized an Article Writing Competition under the Social Awareness Club for BCA Second year students. This activity has helped the students in cultivating social as well as emotional intelligence; making them realizes the urgent requirement for general awareness and activity towards Environment Pollution Control including ban on polybags use.</p> <p>The scope of this competition is to broaden the outlook of the students towards environmental protection.</p> <p>On this topic students have mentioned their views on environment and which concerned about: Causes of pollution, advantages of plastic banning, statistics of pollution and they share solutions to environmental problems. Students learnt a lot about how to make environment pollution free and poly-bag free.</p>





	<p>For awareness of "Environment pollution and Benefits of banning Poly-bags" we have pasted these articles in each and every department- Notice Board in IMS campus.</p> <p>In this activity, the students were given the topic of "Environment pollution and Benefits of banning Poly-bags" and the winners are:</p> <ol style="list-style-type: none"> 1. Priya Sinha (BCA 3rd, B) (Ist Position) 2. Richa Singh (BCA 3rd, B) (IInd Position) 3. Bodhisattwa Baidya (BCA 3rd, A) (IIIrd Position)
<p>Outcomes</p>	<p>Students got awareness about the method to prevent Environmental pollution and how to find various alternatives to discontinue use of plastic and its subsidiaries.</p>
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p> 



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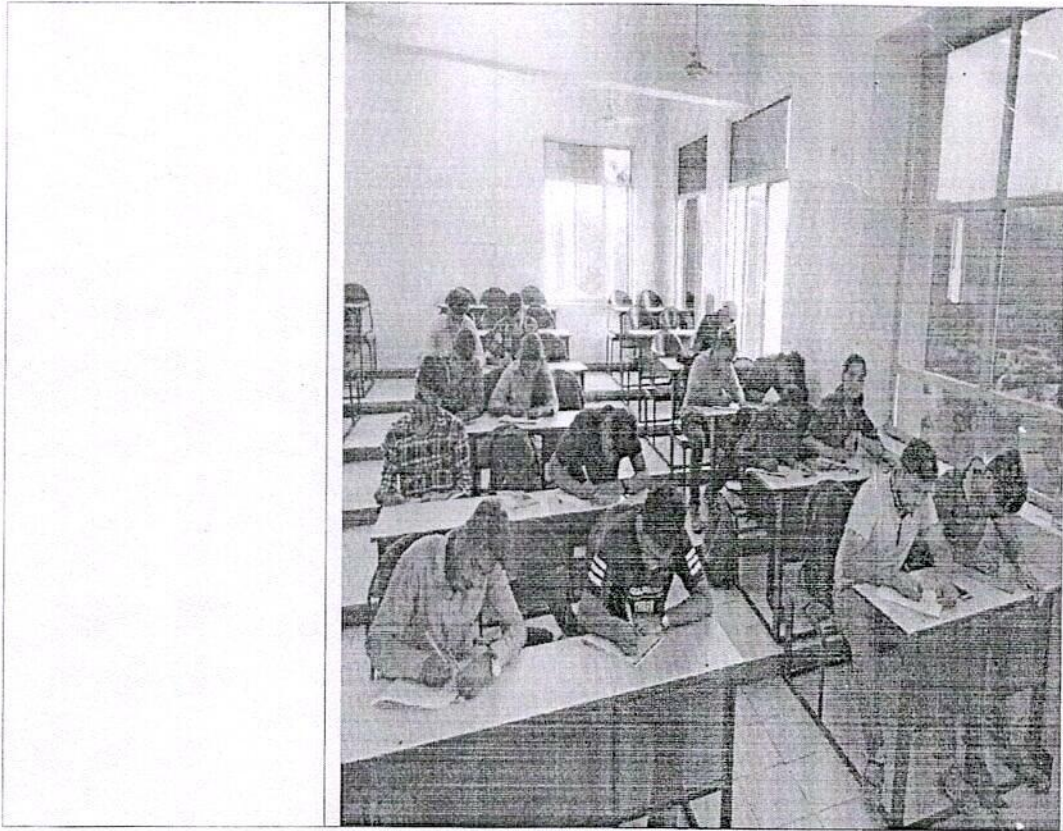
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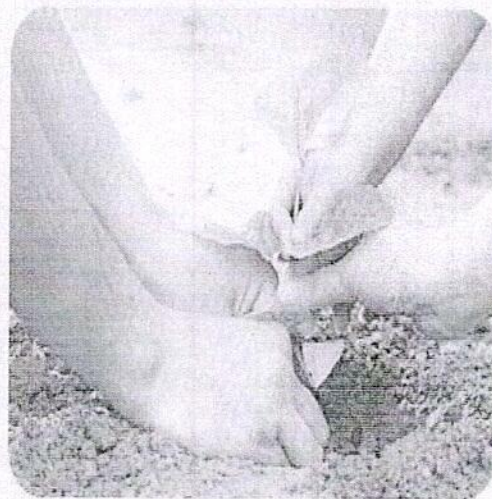
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Internal Quality Assurance Cell (IQAC)



Commemorates

Third Death Anniversary of Dr. APJ Abdul Kalaam



Tree Plantation Drive

Date of Event


July 28, 2018

Venue

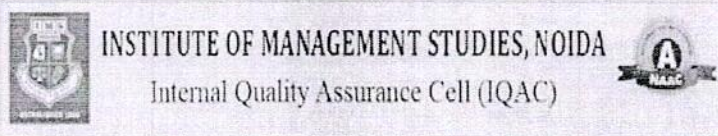

IMS Noida



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Report	
Academic Year	2018-2019
Name of the Activity	Tree Plantation Drive
Date of the Activity	July 28,2018
Organized By	Social Awareness Club, IMS
Number of Participants	20
Resource Person	Dr. Damayanti Datta, Associate Dean-IT, IMS Noida
Objective	To spread awareness about tree plantation and its multiple usage like-to beautify the areas for scenic beauty, To reduce the surface run-off discharge and checking soil erosion along the embankments. To reduce temperature and increase humidity. To reduce noise pollution to the neighboring household population.
Brief Report	<p>IMS Noida, one of the leading management institutes of India recently organized a unique programme of "Tree Plantation" to pay tribute to legendary Dr. APJ Abdul Kalam, the former President of India, known as the 'Missile Man of India' on his second death anniversary. Students, Faculty and management members, all participated in this programme by planted saplings at the IMS Lawns. Thereafter, Students and faculty members jointly took up an oath of planting more trees for making the environment clean and safe in future.</p> <div style="text-align: center;"> <p>BENEFITS OF FORESTS</p> <p>Planting trees around a house can provide shade and cooling effects in the summer, saving money and reducing electricity use. Planting evergreen trees on the north and west sides of a house can also serve as a windbreak and prevent heat loss in the winter.</p>  </div> <p>On this occasion, Dr. Damayanti Datta, Associate Dean-IT, IMS Noida addressed the gathering and also shared her views. She said, "The spring had sprung and the universe had been aggrandized with different type of colors. Trees are the best gift of the nature and its preservation was our foremost duty. We were overwhelmed by the memories of Dr. Kalam and we will surely try to carry forward his legacy.</p>



	<p>The programme has been concluded with the inspirational quote by Dr. KJS Anand, Executive Director IMS. This was an initiative taken by IMS Noida to stop deforestation happening all across the country, mainly in Delhi NCR region. As we know trees play a vital role in our life. Trees are one of the ways of offsetting our carbon emissions. So, trees are the basic need of urban as well as rural cities. The main objective behind the programme was to teach our younger generation that our environment is incomplete without trees. We need to pay an attention towards our environment because global warming is one of the major giant spreading rapidly in the absence of Trees.”</p> <p>“Someone can sit in the shade today because someone planted a tree a long time back” adds Dr. Dutta while concluding her speech.”</p>				
<p>Outcomes</p>	<p>Students learnt about the importance of Trees plantation drive; how trees play an important role in maintain ecological balance in our ecosystem.</p>				
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p> <div style="text-align: center;">  <p>INSTITUTE OF MANAGEMENT STUDIES, NOIDA Internal Quality Assurance Cell (IQAC)</p> <hr/> <p>Commemorates Third Death Anniversary of Dr. APJ Abdul Kalaam</p>  <p>Tree Plantation Drive</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Date of Event</td> <td style="width: 50%; border: none;">Venue</td> </tr> <tr> <td style="border: none;">July 28, 2018</td> <td style="border: none;">IMS Noida</td> </tr> </table> </div>	Date of Event	Venue	July 28, 2018	IMS Noida
Date of Event	Venue				
July 28, 2018	IMS Noida				



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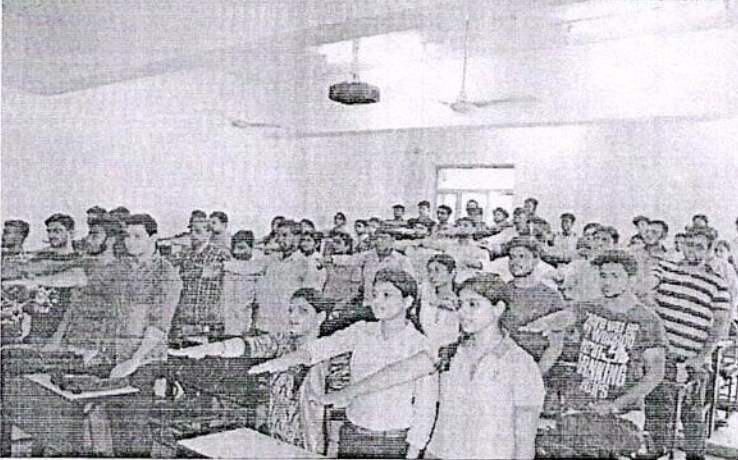
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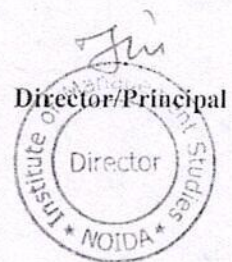
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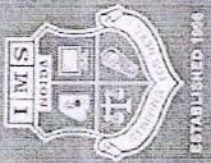
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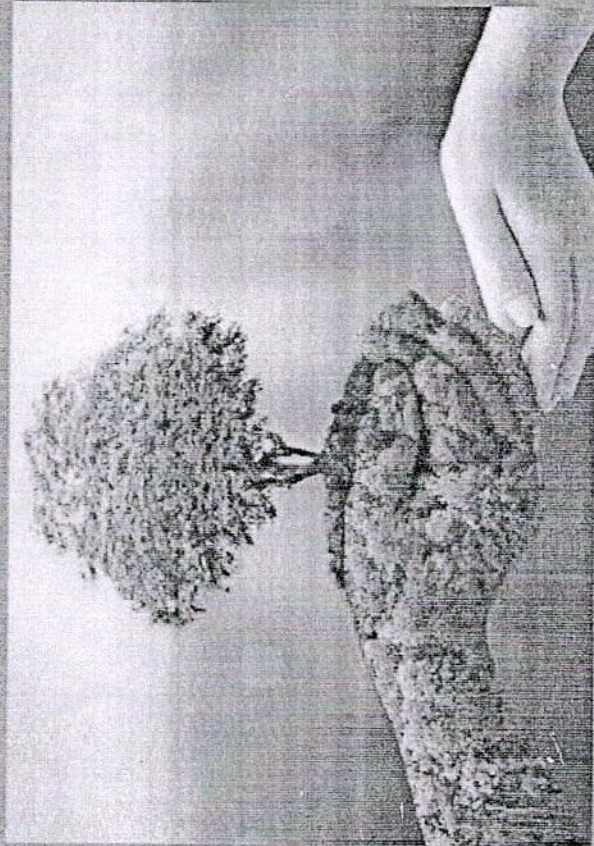
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Internal Quality Assurance Cell (IQAC)

Extension and Outreach Cell IMS Noida



IS ORGANISING Tree Plantation



Date: July 27, 2017
Timing: 11:00 AM to 12:00 PM
Venue: IMS Campus
Resource Person: Dr. Damayanti Datta,
Associate Dean-IT, IMS and Dr. KJS Arand,
Executive Director IMS

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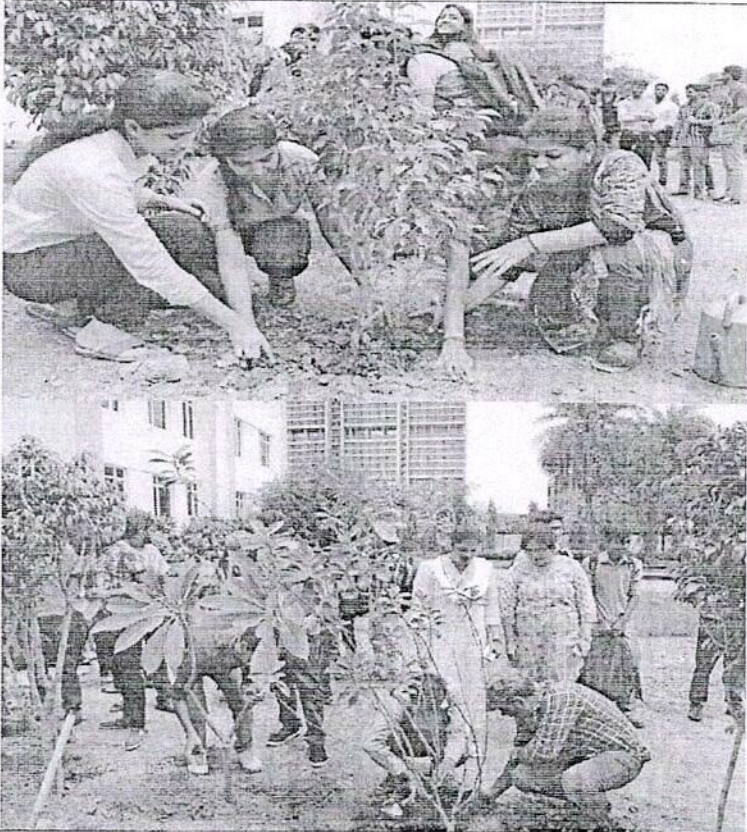
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Report	
Academic Year	2017-18
Name of the Activity	Tree Plantation
Date of the Activity	July 27, 2017
Organized By	Extension and Outreach Cell, IMS Noida
Number of Participants	40
Resource Person	Dr. Damayanti Datta, Associate Dean-IT, IMS .Dr. KJS Anand, Executive Director IMS
Objective	To spread awareness about tree plantation and its multiple usage like-to beautify the areas for scenic beauty, To reduce the surface run-off discharge and checking soil erosion along the embankments. To reduce temperature and increase humidity, To reduce noise pollution to the neighboring household population
Brief Report	<p>IMS Noida, one of the leading management institutes of India recently organised a unique programme of "Tree Plantation" to pay tribute to legendary Dr. APJ Abdul Kalam, the former President of India, known as the 'Missile Man of India' on his second death anniversary. Students, Faculty and management members, all participated in this programme by planted saplings at the IMS Lawns. Thereafter, Students and faculty members jointly took up an oath of planting more trees for making the environment clean and safe in future.</p> <p>On this occasion, Dr. Damayanti Datta, Associate Dean-IT, IMS Noida addressed the gathering and also shared her views. She said, "The spring had sprung and the universe had been aggrandized with different type of colors. Trees are the best gift of the nature and its preservation was our foremost duty. We were overwhelmed by the memories of Dr. Kalam and we will surely try to carry forward his legacy.</p>
	<p>The programme has been concluded with the inspirational quote by Dr. KJS Anand, Executive Director IMS, "This was an initiative</p>

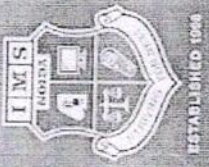


	<p>taken by IMS Noida to stop deforestation happening all across the country, mainly in Delhi NCR region. As we know trees play a vital role in our life. Trees are one of the ways of offsetting our carbon emissions. So, trees are the basic need of urban as well as rural cities. The main objective behind the programme was to teach our younger generation that our environment is incomplete without trees. We need to pay an attention towards our environment because global warming is one of the major giant spreading rapidly in the absence of Trees. "Someone can sit in the shade today because someone planted a tree a long time back" adds Dr. Dutta while concluding her speech."</p>
<p>Outcomes</p>	<p>Students learnt about the importance of Trees plantation drive; how trees play an important role in maintain ecological balance in our ecosystem.</p>
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p> 

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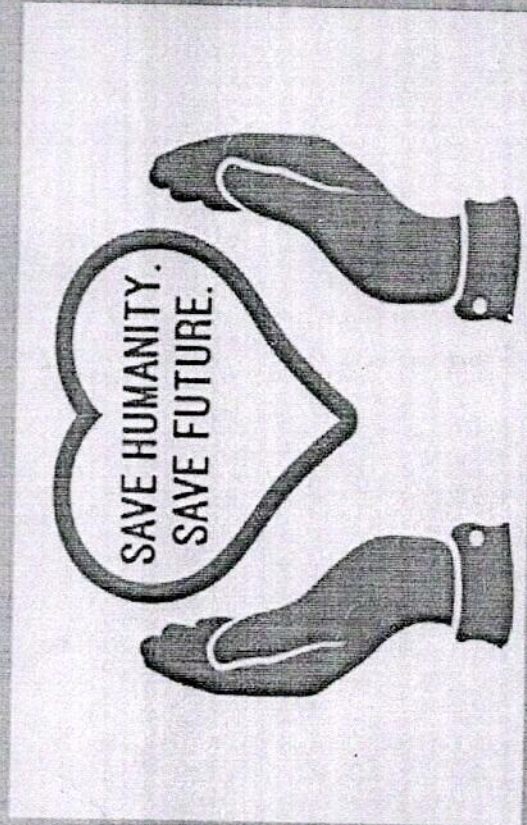
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Internal Quality Assurance Cell (IQAC)

Social Awareness Club, IMS Noida



IS ORGANISING Save Humanity, Save Future



Date: August 2, 2017
Timing: 10:00 AM to 11:00 AM
Venue: Community Radio Salam Namaste
Resource Person: Dr. Rohit Kumar, Ms. Nancy Mendiratta & Ms. Manpreet Kaur



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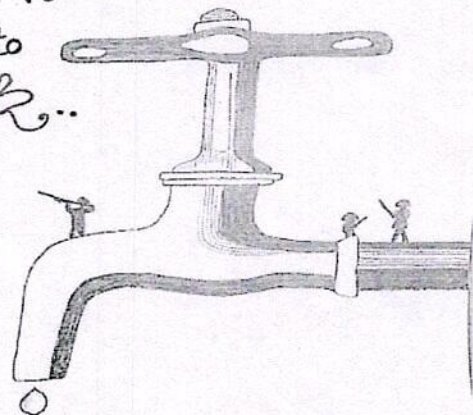
Report	
Academic Year	2017-18
Name of the Activity	Save Humanity Save Future
Date of the Activity	August2, 2017
Organized By	Social Awareness Club ,IMS Noida
Number of Participants	58
Resource Person	Dr. Rohit Kumar, Ms. Nancy Mendiratta & Ms. Manpreet Kaur
Objective	To spread awareness about the human activities which have an impact on earth , in fact a moral obligation for humans towards future generations to avoid activities that lead to environmental degradation and adopt a sustainable lifestyle, which is also immensely beneficial for the health of humans, plants and other living beings
Brief Report	<p>On August2, 2017, School of IT, IMS Noida organized an event, "Save Humanity Save Future" under the Social Awareness Club. The event was conducted under the guidance of Dr. Rohit Kumar, Ms. Nancy Mendiratta & Ms. Manpreet Kaur and focused primarily on the BCA IInd year students. The purpose of this event was to encourage the students to engage deeply with the communities on social issues which impact their lives and their shared future.</p> <div data-bbox="595 952 1387 1489" data-label="Image"> </div> <p>15th August 1947, the day when humanity was at its peak under the aegis of Mr. Mahatma Gandhi, we were all blessed with something that was quite precious, well earned and well deserved. It is called as, or should we say, commonly known as- Being an Indian. Ironically, it has lost its essence ever since. It is this very fact with which encouraged the School of IT to initiate an event under the Social Awareness Club where we tried to wake up the spirits of social awareness.</p> <p>In this event, the students made Posters on various social issues prevalent in the countries that need immediate attention. The Posters</p>



made were based on "Save Humanity Save Future" theme which included the following aspects.

1. Say No to Drugs
2. Save Earth
3. Swachh Bharat
4. Gender Equality
5. Water is Life
6. Save Trees Save Us

*Water, Water Everywhere !!
But... No
Water to
Drink..*



Save Water..!!

It was an effort to remind ourselves, how precious is Earth, how important is Mother Nature, how valuable is a girl; so on and so forth. The forthrightness and social message was appreciated by the students and they pledged to proactively contribute to the society's welfare.

In Poster Making Competition, where the following students of BCA-3A/B/C emerged out as winners and were awarded a prize for the same.

- 1) Vibhav , Abhishek Patel , Purvika , Navneet Saini
- 2) Anjali Kumari
- 3) Vibhor , Vikrant Kumar , Shubham Jaiswal
- 4) Anjali Kumari

Outcomes

Students got awareness about the interlinked dependencies between human and environment in which we as humans has to take care of our mother earth so to have a sustainable and protected environment for future generation.



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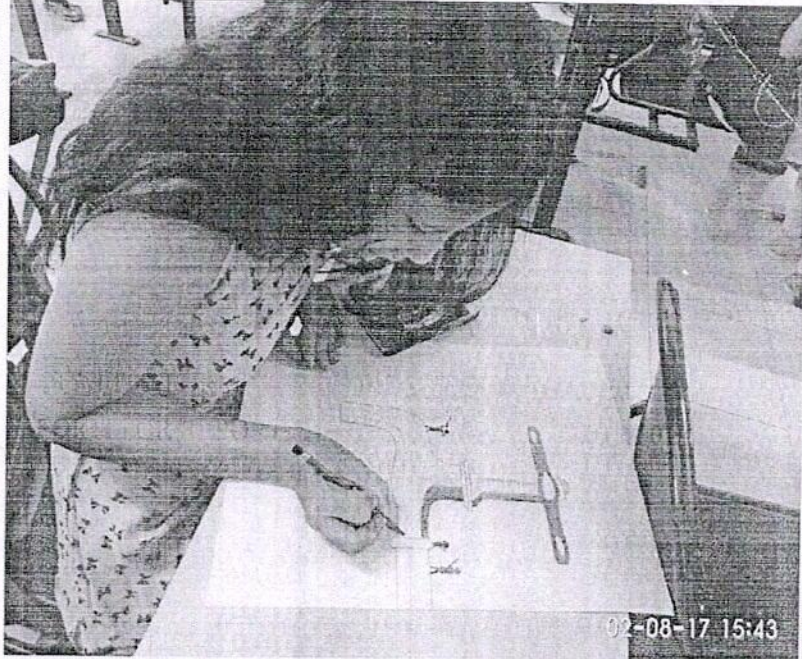
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Sanjay Singh

HOD/PC

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Director/Principal





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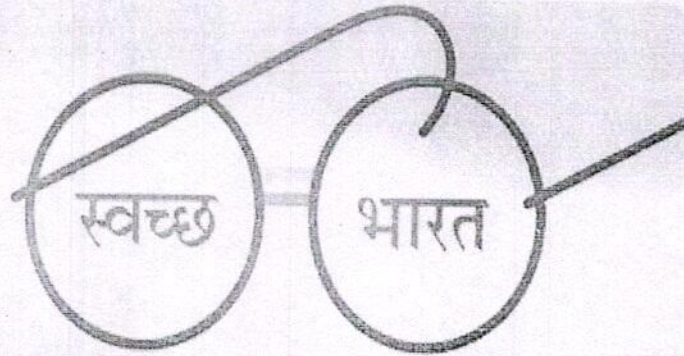
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School of Journalism & Mass Communication

Organizes

Swachh Bharat Abhiyan



एक कदम स्वच्छता की ओर

Date of Event


Sep 16, 2017

Venue

IMS Noida & Surrounding


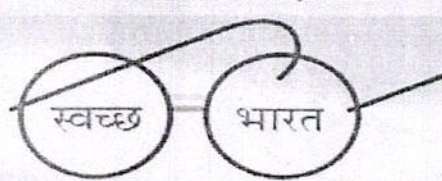


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Report	
Academic Year	2017-18
Name of the Activity	Swachh Bharat Abhiyaan
Date of the Activity	September 16,2017
Organized By	Extension and Outreach Cell ,IMS Noida
Number of Participants	50
Resource Person	Ms. Ritu Garg (Academic Coordinator, SJMC), Dr. Bhavna Madan
Objective	To spread awareness about Swachh Bharat Mission , Elimination of open defecation. Eradication of Manual Scavenging, Modern and Scientific Municipal Solid waste management, To effect behavioral change regarding healthy sanitation practices, Generate awareness about sanitation and its linkage with public health.
Brief Report	<p>SJMC Pahal club took initiative on the occasion of the birth anniversary of our honorable Prime Minister Narendra Modi. A one day event was organized in which students of BJMC and MJMC were invited to participate in the cleanliness movement of Swachh Bharat Abhiyan. For conducting the drive the IMS campus and nearby area of Sector-62 Noida was selected. Together the team of our students collected dust and dry components around the campus and disposed the waste material in dustbin. The faculty of our department Ms. Ritu Garg (Academic Coordinator, SJMC), Dr. Bhavna Madan, Mr. Prem Kumar, Mr. Pramod Kumar, Ms. Rama Arora, Mr. Neelabha Bhattacharya, Ms. Monika Guar, Ms. Anamika Srivastava encouraged students to conduct the drive for accomplishing the clean India Mission.</p>
	



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	<p>Some of the objectives of Swachh Bharat Abhiyan are as follows:</p> <ol style="list-style-type: none"> 1) Elimination of open defecation. 2) Eradication of Manual Scavenging. 3) Modern and Scientific Municipal Solid waste management. 4) To effect behavioral change regarding healthy sanitation practices. 5) Generate awareness about sanitation and its linkage with public health. <p>Keeping in view the waste management and sanitation practices, this one day activity helped in generating awareness on these issues. On the other hand the development aspect for healthy sanitation practices by self participation became clear to students of SJMC. The programme was further enhanced by participation of principal IMS Mr. JK Mittal for giving students the message on cleanliness and increasing the awareness amongst the students who participated with full zeal and enthusiasm.</p> <p>Such events are a step towards understanding the need of social awareness apart from classroom teaching. Everybody felt motivated and involved towards the ongoing Swachh Bharat Abhiyan by participating in event.</p>
<p>Outcomes</p>	<p>Students got awareness about Swachta Bharat Abhiyan and its importance in day to day life for making society a better place to live.</p>
<p>Photographs/Newspaper Cutting of the Event</p>	<p>Photographs/Newspaper Cutting of the Event</p> <div style="border: 1px solid black; padding: 5px;">  <div style="text-align: center;">  <p>एक कदम स्वच्छता की ओर</p> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div data-bbox="642 1680 799 1736"> <p>Date of Event Sep 16, 2017</p> </div> <div data-bbox="1050 1680 1332 1736"> <p>Venue IMS Noida & Surrounding</p> </div> </div> </div>



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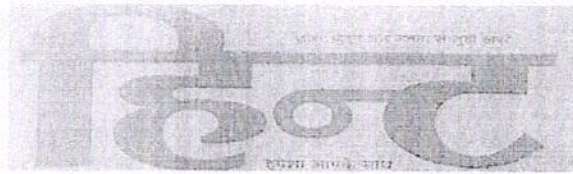
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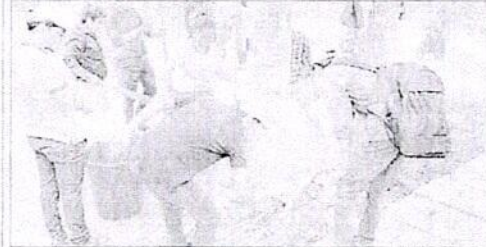
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आईएमएस के छात्रों ने चलाया स्वच्छता अभियान



आईएमएस के छात्रों ने स्वच्छता अभियान चलाया। छात्रों ने कैंपस के अंदरूनी हिस्सों में गंदगी हटाने के लिए बroom और bucket का उपयोग किया। यह अभियान स्वच्छता के प्रति जागरूकता बढ़ाने के लिए किया गया था। छात्रों ने कहा कि स्वच्छता एक अच्छी आदत है और इसे हमें अपने जीवन में बनाना चाहिए।



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जय हिन्द जनाब

आईएमएस नोएडा के छात्रों ने चलाया स्वच्छता अभियान

नोएडा। आईएमएस नोएडा के छात्रों ने शनिवार को शहर के विभिन्न हिस्सों में स्वच्छता अभियान चलाया। छात्रों ने सड़क किनारों, पार्कों और अन्य सार्वजनिक स्थानों पर कचरा इकट्ठा कर उसे सही तरीके से निपटाया। छात्रों का यह अभियान शहर की स्वच्छता बढ़ाने और जनता को स्वच्छता के महत्व के बारे में जागरूक बनाने के लिए था।



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अमर उजाला

दरई दिल्ली
रविवार, 17 सितंबर 2017

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दैनिक जागरण

दैनिक जागरण के छात्रों ने चलाया स्वच्छता अभियान
नोएडा। दैनिक जागरण के छात्रों ने शनिवार को शहर के विभिन्न हिस्सों में स्वच्छता अभियान चलाया। छात्रों ने सड़क किनारों, पार्कों और अन्य सार्वजनिक स्थानों पर कचरा इकट्ठा कर उसे सही तरीके से निपटाया। छात्रों का यह अभियान शहर की स्वच्छता बढ़ाने और जनता को स्वच्छता के महत्व के बारे में जागरूक बनाने के लिए था।

Riya
HOD/PC

Ju
Director/Principal
Institute of Management Studies
Director
NOIDA

Appendix IV



Environmental/ Green Campus & Energy Audit Report

On Dated: 15th May 2022

AUDITED BY

FlatNo.614 Vasant Enclave, Rajendra Nagar, Gorakhnath, Gorakhpur UP – 273015 India
(Assessor IAS, Assessor NABCB/QCI, Under Ministry of Commerce, Certified Lead Auditor ISO
9001, 14001, 22001, 45001, 50001, Expert in Climate Change, Waste Management, Facilitator
CII-IGBC, IGBC AP, ASSOCHAM-GEM-CP, GRI Professional)

G.C. CONSULTANCY SERVICES

(ISO 9001, 14001, 45001 Certified, MSME & NSIC Registered Company)




ACKNOWLEDGEMENT

M/s G C Consultancy Services, audit team grateful to Hon'ble President Shree Rajeev Kumar Gupta IMS Noida (UP) for assigning this important work of Environment audit. We appreciate the co-operation to our team for completion of study.

Our special thanks to:

1.	<i>Prof. (Dr.) Pradeep K Saraswat</i>	<i>Hon'ble Registrar IMS, Noida (U.P.)</i>
2.	<i>We are also thankful to Mr. Manish Kumar Gupta (Head Admin) and his team for sparing their precious time and guiding us on various aspects of college development & achievements.</i> <i>Thanks a lot, to you all, we learnt a lot from you. This will guide us also for our future works and guiding us on various aspects of college development & achievements.</i>	
3.	<i>Our special compliments to Prof. (Dr.) Pradeep K Saraswat (Registrar), who was continuously with us during the audit and his efforts of coordination with other department in collecting the data & helping us compiling them, cannot be forgotten.</i>	
4.	<i>We are also thankful to the staff members for giving us supports & valuable input by involving themselves while collecting the data and conducting field tests and measurements.</i> <i>We also extend our thankfulness to canteen staffs & Manager who gave us a five-star welcome and served a highly hygienic and hot food stuffs. The canteen was well sanitized and food stuff was also of commendable quality.</i>	



Ashutosh Kumar Srivastava

Authorized Signatory

M/s G C Consultancy Service

Date: 15th May 2022

Place: Gorakhpur



Disclaimer

M/s G C Consultancy Services, Environment Audit Team has prepared this report for *IMS Noida (UP)* based on input data submitted by their representatives of college complemented with the best judgment capacity of the expert team and samples collected by our team in presence of Noida team members.

While all sensible care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements, or forecasts in the report.

If IMS Noida (UP) authorities wish to distribute copies of this report external to any organization, then all pages must be included.

M/s G C Consultancy Services, its staff and agents shall keep confidential all information relating to college and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies M/s G C Consultancy Services staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.



Ashutosh Kumar Srivastava

**(Assessor NABCB/QCI, Assessor IAS, IGBC AP, ASSOCHAMGEMCP,
Facilitator CIIIGBC, Lead Auditor ISO9001, ISO14001, ISO22000,
ISO45001, ISO50001, ISO 17020, ILAC P15,
GRI certified Professional 2021 updated)**



Context and Concept

In India, the process for environmental audit was first mentioned under the Environment Protection Act, 1986 by the Ministry of Environment of forests on 13th march, 1992. As per this act, every person owning an industry or performing an operation or process needs a legal consent and must submit an environmental reporter statement.

The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory from the academic year 2019–20 onwards that all Higher Educational Institutions should submit an annual Green, Environment and Energy Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the sustainable environment.

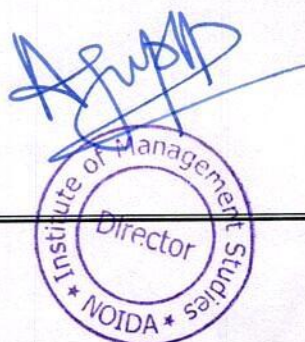
In view of the NAAC circular regarding environment auditing, the College management decided to conduct an external environment assessment study by a competent external professional auditor.

The term 'Environmental audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' area, so used to describe similar activities. Furthermore, some organizations believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Al though there is no universal definition of Environment Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC Defines Environmental Auditing as:

"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."

This audit focuses on the environment legal compliances and implementation of rules defined by MoEF&CC or CPCB, state pollution control board. The concepts, structure, objectives, methodology, tools of analysis are objectives of the audit are discussed below.



CERTIFICATE

This is to certify that a detailed "Environment Audit & Energy Audit" for IMS Noida (UP) has been conducted at its campus for the academic year 2021-2022 on 15th May 2022. The audits were conducted in accordance with the applicable standards prescribed by the U.P State Pollution Control Board, Central Pollution Control Board (CPCB), New Delhi, and the Ministry of Environment, Forest, and Climate Change, (MoEF&CC), New Delhi. The audit involves Water, Air, Wastewater, Energy/ Renewable Energy, Hygiene, Sanitation, Green inventory, solid waste and plastic waste etc., and given an 'Environmental Management Plan' (EMP), which the college may follow to minimize the impact on the institutional working framework. In an opinion and to the best of our information and according to the information given to us, said Environment and it gives a true and fair view in conform, it with environmental audit in principles accepted in India.



Ashutosh Kumar Srivastava

Authorized Signatory & Seal

G C Consultancy Service, Gorakhpur

Date: 15th May 2022

Place: Gorakhpur



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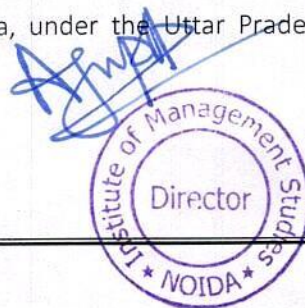
Preface

It is in the state of Uttar Pradesh at the fringes of Delhi, the national capital. Located at the doorstep of Delhi, NOIDA is only 14 Kms. away from Connaught Place. The 550 meter long, eight lane NOIDA Toll Bridge across Yamuna connecting Maharani Bagh in Delhi to NOIDA has further reduced the distance, time and cost of commuting to and from Delhi-NOIDA. Noida has all the key advantages of Delhi without having its disadvantages. The development area encompasses about 20,316 hectares of land consisting of 81 villages of district Gautam Buddh Nagar.

Noida is bounded by NH-24 Bye-Pass in the North beyond which the Ghaziabad Development Area exists, in the East by River Hindon beyond which Greater Noida Industrial Development Area exists, in the West by River Yamuna, beyond which are the States of Delhi and Haryana and in the South is the meeting point of the rivers Yamuna and Hindon.

A brief compendium of its achievements, in the years passed by, here we strive to present you the matchless facilities available in NOIDA. NOIDA Constituted under the U.P. Industrial Area Development Act, 1976, NOIDA has now emerged as a planned, integrated, modern Industrial City, well connect to Delhi through a network of roads, national highways and the ultra - modern DND flyover, offering inter - road linkages to all parts of the country. Spread over 20,316 hectares, with many sectors fully developed, NOIDA offers a pollution free high standard of living and highly supportive industrial environment with its unique infrastructure providing numerous, matchless facilities. Today, it stands as an enviable monument of the concept of integrated Industrial township in the world, with smooth and wide roads, well developed land, uninterrupted power supply, clean and safe drinking water, unfailing telephony, and splendid residential complexes in the serene and peaceful environment with greenery all around

One of the largest Industrial Townships of Asia Not very far from Delhi yet away from the dirt, grime and pollution, part of the National Capital Region, Noida is the industrial fairy land of the nation. New Okhla Industrial Development Authority - NOIDA is one of the largest planned industrial townships of Asia. Set up in 1976, with a view to develop an Integrated Industrial Township for the industrial growth of the area, under the Uttar Pradesh Industrial Area



Development Act, it best symbolizes harmony between human habitat and Industrial Enterprise.

History Of Noida

The educational and software hub of the north, Noida is known for its rich culture and history. It is an integral part of the national capital region and is known for its state-of-the-art infrastructure and planned architecture.

Noida has always been an important center for trade and commerce, but historians say that it was more than just a business hub. Noida is believed to be the birthplace of Ravana's father and Saint Visheshwa. It is said that Eklavya – Dronacharya's disciple also hailed from this part of the country. Dronacharya, the unforgettable character of the epic Mahabharata had his ashram in Noida where the Pandavas and the Kauravas used to train.

During medieval India, the land was primarily occupied by Gujjars whose main occupation is of agriculture and farming. Even today, a large part of Gujjar community hails from different parts of Noida. The expansive Noida Golf course is also built on a historical site. It is here that the battle of Delhi was fought during the British rule. Talking about the freedom movement, many freedom fighters are associated with Noida. Some of the most popular ones include Vijay Singh Pathik, Mihir Bhoj, Shri Ram Nath, Shri Gopi Chand and Ram Chandra Vikal. Historians believe that during the freedom struggle Bhagat Singh, Rajguru and Sukh Dev took refuge in a small village called Nalgara, which is currently on the Noida-Greater Noida expressway. They planned the mighty bomb attack on the assembly in Nalgara village itself.

Noida is a city under the management and administration of the New Okhla Industrial Development Authority (NOIDA) which was formed on April 17, 1976. It was the prime time of the emergency period which lasted from 1975 to 1977. The city was established as a part of the urbanization uprising. Located in the Gautam Buddha Nagar district of Uttar Pradesh, Noida is an integral part of the ever-growing NCR. Each year April 17 is celebrated as Noida Day with great zeal and enthusiasm in the entire city.

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Important Historical Events in Noida

1976 – Formation of Noida

Early 1980s – Noida Extension taken as part of NCR

1990s – Noida and Greater Noida start developing into world class cities

1997 – Formation of Gautam Buddha District

IMS Noida (UP)

Institute of Management Studies (IMS), Noida is an ISO certified institute and one of the premiere management institutes renowned for offering the multi designed undergraduate and postgraduate full time degree programs. We are situated in the midst of Delhi NCR which makes it accessible for the students to reach and study without any trouble. Our courses aim to provide the relevant knowledge and skills to the aspirants so that they can act as the leaders making the significant contributions to the society. With a radical cutting-edge curriculum, infrastructure and industry-experienced faculty, IMS is focused on creating its students the next generation professionals that can leave an exemplary mark wherever they go. We are one



stop destination having multicultural environments to study in. IMS Noida is equipped with the latest technologies for all its courses which promise to impart the necessary technological skills needed for the job, also making its students aware about the evolvement taking place in the world. We have a strong alumni network working in the top-notch companies that not only makes us proud but also plays a pivot role in motivating the next generations to come and work hard. Our placement cell ensures 100% job assistance to our students which we have proved time and again and this makes us stand apart from the rest.



This is to certify that the management system of:
Institute of Management Studies - Noida

Main Site: A-88, Sector - 62, Noida - 201303, Uttar Pradesh, India
 has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:
 Design and Provision of PGDM Courses and Educational Courses in Management, IT, Mass Communication and Journalism.

Certificate Number:
0058136
Initial Certification Date:
09 January 2017
Date of Certification Decision:
23 December 2019
Issuing Date:
26 December 2019
Valid Until:
08 January 2023



Calin Moldovean
Calin Moldovean
 President, Business Assurance

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About IMS Noida (UP)

IMS Noida, established in 1998, is a premier institute known for its academic excellence and value-based education. It caters to both fresh graduates seeking world-class education and to those who are already employed and want to enhance their managerial skills. IMS also has collaborations with several College overseas and seeks to imbibe a global mindset in its students. There is also a strong focus on research and IMS encourages its faculty and students to undertake consultancy projects with corporate.

Situated in the heart of Noida city, within a sprawling campus, IMS Noida is a world in itself. However, in contrast to its surroundings, IMS is alive with activities, ideas and ambitions. State-of-the-art infrastructure facilities at IMS render an atmosphere that is conducive for learning and development. Situated at the institutional area in Sector-62 of the Electronic City, the Institute provides its students the best of the facilities to develop their management skills & personality. Institute of Management Studies, Noida, a premiere Institution with exceptional worldwide linkage, strives at the holistic formation of world class leaders with unmatched professional competence and strong ethical perspective. IMS endeavors to contribute to the sustained development and inclusive growth of the nation and the world at large by forming men and women imbued with a spirit of innovation and entrepreneurship.

About the Campus: -

Campus: 5 Acre

Nearest Metro Station – Noida Electric City (Sector 63)

Distance from Vaishali Metro Station – 5kms

Distance from Anand Vihar ISBT Bus terminal – 8kms

Distance from New Delhi Railway Station – 17kms

Distance from New Delhi Airport – 25kms



Departments of IMS Noida (UP)

1	SCHOOL OF MANAGEMENT	BBA
2	School Of Information Technology	BCA
3	School of Journalism & Mass Communication	BJMC MJMC
4	Department of Fine Arts	BFA

Vision, Mission & Goals

Vision:

The world is changing incredibly fast in almost every parameter from technology to climate, culture to business practices, global trade scenarios to work methods. What was Next becomes passé almost instantly.

IMS has a unique vision 'NEXT'! We always think about what's NEXT, since we are living in the competitive world so one should always be thinking about NEXT opportunity, NEXT challenge and NEXT development. We, at IMS, aims to become an influential institution known for its critical thinking and social responsibility. Our main concern is to give students knowledge and core values to make them responsible and ethical leaders. IMS focuses to be a technology driven institution and to be recognized for leading innovative and applied research. The best way to control the future is to create it and the only way to be future-ready is to gain the ability to learn, unlearn and relearn quickly. The world is changing rapidly and to fit in this fast-moving environment one should be adaptive and inquisitive. IMS assures its students learn all the necessary skills to make their NEXT move a marvelous move!

Mission:

To act as an institution of excellence and to design the courses in such a way to bring the best of the capabilities out of the students engaging them in live projects and hands on experience. To teach the students discipline, dedication, confidence and honesty

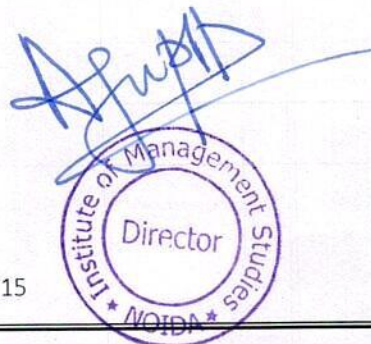


which will help them in their endeavors and becoming leaders. Innovations in teaching methods and technologies helping the students to evolve and learn in the creative way. We believe in the blend of the relevant knowledge and skills to meet the challenges of a fast-changing business world. We provide the needed space to the students to express their views freely thereby understanding their thinking and utilizing them for the welfare of the society.

Goals:

1. **To provide a world-class education:** IMS Noida aims to provide a world-class education to its students by offering a range of courses in management, journalism, mass communication, and other fields.
2. **To create future leaders:** IMS Noida seeks to develop its students' leadership skills, ethical values, and professionalism, preparing them to become the future leaders of their respective fields.
3. **To foster an entrepreneurial spirit:** IMS Noida encourages its students to think creatively, take risks, and develop an entrepreneurial mindset that will help them succeed in their careers.
4. **To provide practical learning experiences:** IMS Noida offers a range of practical learning experiences, such as internships, live projects, and industry visits, that allow students to apply their theoretical knowledge in real-world settings.
5. **To promote research and innovation:** IMS Noida encourages its students and faculty to engage in research and innovation, helping to contribute to the advancement of knowledge in their respective fields.

Campus Area:	5 Acre
Academic Block:	4
Laboratories:	16
Research Center:	1 R & D Cell
Library:	1 (25000 Books)
Parks:	2



Playing Grounds: 2 Indoor Grounds (Football, Volleyball, etc.)

Gym: 1 Open Gym in Hostel Block

Medical Facility: 1 Medical Dispensary

Hostel: 1 (Girls Hostels) IMS Block

Vehicle Parking 1

Bicycle / 2- 2 (Entry Gate)

Wheeler: Parking
Stand

NAAC Rating:

It's affiliated to Chaudhury Charan Singh University. The Institute of Management Studies Noida is recognized by UGC. The institute is accredited with a Grade 'A' by NAAC. Admission to this institution is based on the entrance exam and merit scores.



Awareness for Environment:

IMS Noida is committed to creating awareness for the environment and promoting sustainable practices among its students, faculty, and staff. The institute has taken various initiatives to promote environmental awareness and sustainability, including:

Green Campus: IMS, Noida has a lush green campus that is designed to minimize environmental impact and promote sustainable practices. The campus has ample green spaces (60% of the area green), and the institute has implemented measures such as rainwater harvesting and waste management to minimize its environmental footprint.

Energy Conservation: IMS, Noida has implemented energy conservation measures such as using energy-efficient lighting and air conditioning systems, promoting the use of natural light, and encouraging students to switch off electrical appliances when not in use.

Awareness Campaigns: IMS, Noida regularly organizes awareness campaigns and events to promote environmental awareness and sustainability among its students, faculty, and staff. These events include tree planting drives, workshops, and seminars on environmental issues.

Curriculum Integration: IMS, Noida integrates environmental education into its curriculum to promote environmental awareness among students. The institute offers courses on environmental studies and sustainability to help students understand the importance of environmental conservation and sustainable practices.

Library

Library is a pre-requisite for education for sustainable development at all levels of education. Library usage with the help of an educator is very motivated and ignites passion for student's learning. For an IT scholar, it is a visible source to all its extension services such as audio-visual aids, story hours, lectures, book exhibitions, pictures, newsreels, films, etc., for management education. It is a known fact that the library helps strengthen collaborative research amongst



industry, government and educational communities in the society and contribute to all life-long learning opportunities to students. From the orientation programmed across the life-term of a student, library and its facilities are a constant knowledge pool for them, and its usage is effectively cultured at IMS, Noida.

Other Student Activities

1. Fresher Party Celebration
2. Roadies Promotion
3. NCR Dance Start Competition
4. IMS Rock Band – Fursat
5. Grand Annual Fest SJMC Freshers Party
6. Aaj Tak Team at IMS Canteen
7. Ad Making Workshop
8. Alumni Fest – Students Artwork
9. Convocation Ceremony
10. Convocation Ceremony at IMS Campus
11. IMS NerDU Launch
12. Layout Design Workshop by Vikram Rao
13. National Press Day
14. Poster Making Competition
15. SJMC Nukkad Natak in Sultanpur Village Greater Noida
16. SJMC Orientation Programmed by Sr. Anchor Archana Singh (India TV)
17. SJMC Students reporting at Bisrak Village
18. Student Interaction Sessions



Timeline for all departments

Departments	Establish Year
BBA	1999
BCA	1999
Journalism & Mass Communication	2002
Fine Arts	2015



जय हिन्द जनाब

सलाम नमस्ते में कोविड मुक्त त्योहार पर कार्यशाला का आयोजन



जय हिन्द संवाद

भोपाल। आईएमएसएन नोएडा के सामुदायिक रीजियो सलाम नमस्ते में कोविड मुक्त त्योहार के लिए आयोजित एक कार्यक्रम किया। सत्रवार 62 दिवस संरक्षण परिसर में आयोजित कार्यक्रम में त्योहार के दौरान छात्रों की स्वागतिक एवं सजग भागीदारी चर्चा की गयी। वहीं कार्यक्रम के दौरान छात्रों को कोविड मुक्त त्योहार के

लिए आग्रह भी दिखाई गई। कार्यक्रम को शुरूआत करते हुए सलाम नमस्ते की स्टेशन हेड अर्पिता खरिया ने बताया कि आज के कार्यक्रम को शुरूआत छात्रों को कोविड मुक्त त्योहार के लिए सजग दिशा कर की गई।

वहीं कार्यक्रम के दौरान 100 करोड़ सफल टीकाकरण के लिए स्वास्थ्य कर्मी, डॉक्टर एवं समुदाय के लोगों को आभार व्यक्त किया गया। सलाम नमस्ते

की स्टेशन हेड अर्पिता खरिया ने बताया कि आज के कार्यक्रम में टीकाकरण के दौरान सुराक्ष लेने वाले महिलाओं की शीरो एवं पुरुष कर्मी की शीरो के फिदाय से भी सम्मानित किया गया।

सलाम नमस्ते ने इस कार्यक्रम का आयोजन समार्ट एनजीओ के संयुक्त तत्वाधान में मेगा कार्यक्रम टीकाकरण अभियान को सफलतापूर्वक आयोजित किया।



Introduction of Auditing Firm

M/s. G C Consultancy Services, Gorakhpur is a fast-growing committed consultancy firm. It has its unique feature & unlike other organization we don't simply conduct audit and report preparation is done. But we consider all Government norms (Central & State), CPCB, SPCB, NGT and Supreme court guidelines at the time of Audit. The quality and adoption of CPCB, SPCB norms is our commitment. It is one of the fast-growing Organization in Energy audit, renewal energy, water conservation, waste management, air quality services providing company executed several projects covering all the diversified field Sectors & states of India. The Director Being Ex Central Government Officer & having experience of 33+ years and his associate team members are very well experienced in the field of Environment, Energy Audits. The associate team and experts are highly qualified and experienced in the field of diversified Environment Audit and Services. Individual credential of each member in the field of Energy Audit is very rich due to their past association with the very reputed organization of Auditing sectors. The company has Head office at Gorakhpur, Uttar Pradesh.

Name of Firm	M/s G C Consultancy Services
Address	614, Vasant Enclave, Rajender Nagar, Gorakhnath, Gorakhpur. 273015
Contact details	7007794292, 9919935600 Email id: gccs4114@gmail.com , director@gccsindia.com



G C Consultancy Director's & team Details

Sr. No.	Name	Designation	Qualification and Technical Experience
1.	Er. Ashutosh Kumar Srivastava Director	Principal Auditor 33+ Years of Experience	BE (Civil), Lead Auditor ISO 9001, 14001, 22001, 45001, 50001, 17020. GRI professional 2021 Updated. IGBC AP, ASSOCHAM GEM CP, Expert in water audit, air audit, wastemanagement.
2.	Dr. Anita Srivastava	Head for documentation & Preparation of report	Ph. D (Botany), Rajasthan University, Jaipur. Rajasthan
3.	Mr. Vikas Srivastava	Water Quality & Quantity Expert and data analyst. 4 Years' Experience	B.Com. from DDUGU M.Com. from DDUGU UGC NET Qualified
4.	Mr. Gaurav Verma	Ambient Air Quality Expert 3 Years' Experience	B.Com. from Siddharth University M.Com. from Siddharth University
5.	Mr. Lokendra Singh Chauhan	Energy & Renewal Expert 14 Years' Experience	AMIE (Electrical Engineering) from Institute of Engineers India, Kolkata, PG Diploma in Strategic HR Management, Retired as Scientist-D/ Joint Director from Bureau of BIS after 38+ years' experience of working in different activities of BIS.

M/s G C Consultancy Services Registered in Ministry of Micro, Small & Medium Enterprises (MSME) as Micro unit, registered in NSIC under Environment Consultancy services.



List of Instruments

Following are the instrument used at the time of the Environment Audit.

Sr. No.	Instrument	Make and Sr. No.
1	Water testing kits at site for testing various parameters of water	<i>Prerana Laboratories</i>
2	Air Quality test kit for noting various parameters of Air	<i>Prana Laboratories</i>
3	Temperature gun 1 Set (infrared Thermometer)	<i>Cyclops L Portable pyrometers</i>
4	Lux Meter 1 Set (Digital Lux Meter)	<i>Fluke lux meter. Conforms to IEC 61010, CAT III 600V safety rated</i>
5	Flue gas Analyzer	<i>Testo 330i: The future of flue gas analysis.</i>



Environmental & Green Campus Audit



INTRODUCTION

Environment Audit an Effective Efforts towards Environment Sustainability & Energy Conservation

Modernization and industrialization are the two important outputs of the twentieth century that have made human life more luxurious and comfortable. Simultaneously, they are responsible for various use of natural resources, exploitation of forest and wildlife, producing passive solid waste, polluting the scarce and sacred water resources, and finally making our mother Earth ugly and in-hospitable. Today, people are getting more familiar with global issues like global warming, greenhouse effect, ozone depletion, and climate change, etc. Now, it is considered as a final call by Mother Earth to walk on the path of sustainable development. The time has come to wake up, unite and combat together for a sustainable environment.

Considering the present environmental problems of pollution and excessive use of natural resources, Hon'ble Prime Minister Shri Narendra Modi ji has declared the Mission of Swachh Bharat Abhiyan. Also, College Grants Commission has mentioned the "Green Campus, Clean Campus" mission mandatory for all higher educational institutes. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent. Govt. of India has issued National Education Policy 2020 and has issued white paper on its policy. Generation coming should be well conversant with the effects and impacts on Environment and Modernization/Development. Coming generation must know how to make a balance in both.

Environment Audit is the most efficient ecological tool to solve such environmental problems. It is a process of regular identification, quantification, documenting, reporting, and monitoring of environmentally important components in a specified area. Through this process, the regular environmental activities are monitored within and outside of the concerned sites which have direct and indirect impacts on the surroundings. An environment audit can be one of the initiatives for such institutes to account for their energy, water resource use as well as wastewater, solid waste, hazardous waste generation. The environment Audit process can play an important role in the promotion of environmental awareness and sensitization about resource use. It can create consciousness towards ecological balance, values, and ethics. Through the green audit, one can get direction about how to improve the condition of the environment without much affecting the impact on nature.

Environment Audit

Environment auditing is the process of identifying and determining whether an institution's practices are eco-friendly and sustainable. Traditionally, we are good and efficient users of natural resources. However, over the period excess use of resources like energy, water, chemicals are become habitual for everyone especially, in common areas. Now, it is necessary to check whether our processes are consuming more than the required resources? Whether we are handling waste carefully? In fact, as per modern thinking there is waste as such. The policy of Waste to Wealth has been the new concept introduced. Environment audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion, it is necessary to verify the processes and convert them into green and



clean ones. The environment audit provides an approach for it. It also increases overall consciousness and awareness among the people working in institutions towards an environment.

Goals of Environment audit

IMS, Noida has conducted an Environment audit & other audits earlier with specific goals as:

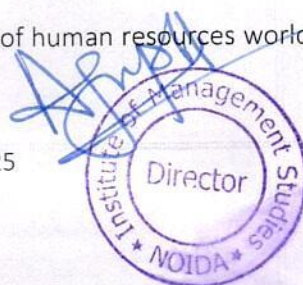
- Assess facility of different types of waste management.
- All waste shall be first finding the scope of its use under Waste to Wealth policy.
- Increase environmental awareness throughout campus.
- Identification and documentation of green practices followed by college.
- Identify strengths and weaknesses in green practices.
- Conduct a survey to know the ground reality about green practices.
- Analyze and suggest solutions for problems identified from the survey.
- Identify and assess environmental risk.
- Short-term goal of environment audit program.
- The long-term goal of the environmental audit program is to collect base line data of environmental parameters and resolve environmental issues.
- To motivate staff and student for optimized sustainable use of available resources.

Objectives of Environment audit

- To examine the current practices which can impact the environment such as water, air, optimum resource utilization, waste management, etc.
- To prepare an Environmental Statement Report on green practices followed by different departments, support services, and administration building.
- To set goals (Short/Long), vision, and mission for green practices on the campus.
- To identify and analyze significant environmental issues.
- To establish and implement Environmental Management Plan (EMP) in various departments and review them periodically.
- To assess for better performance in green practices and its valuation.

About Criteria 7 of NAAC

HEIs are playing a key role in the development of human resources worldwide. Government of



India through NEP 2020 has framed the policy under which there shall be 4 verticals out of which NAC vertical will be governed for independently assessment of all HEIs. Higher education institutes campus run various activities with the aim to percolate the knowledge along with practical dimension among the society. Likewise, different technological solutions related to the environment are also provided by the higher education institutes. Different types of evolutionary methods are used to assess the problem concerning the environment. It includes Environmental Impact Assessment (EIA), Social Impact Assessment (SIA), Carbon Footprint Mapping, environment audit, etc.

National Assessment and Accreditation Council (NAAC) is a self-governing organization that rated the institutions according to the scores assigned at the time of accreditation of the institution. Environmental Audit has become a mandatory procedure for educational institutes under NEP 2020 and in Criterion VII of NAAC. The intention of the green audits is to upgrade the environmental condition inside and around the institution. It is performed by considering environmental parameters like optimum use of water and wastewater (approach of recycling and reusing of the same) and accounting, energy conservation, possibilities of new/renewable energy, waste management, air, noise monitoring, facilities for females and differentially abled persons etc. for making the institution eco-friendlier. Students are the major strength of any academic institution. They are also the future of the nation. Hence educating the Practicing green action in any educational institution will inculcate the good habit of caring for natural resources in students. Many environmental activities like plantation and nurturing saplings and trees, Cleanliness drives, Bird watching camps, no vehicle day, Rainwater harvesting, etc. will make the students good citizens of the country, Through Green Audit, higher educational institutions can ensure that they contribute towards the reduction of global warming through Carbon Footprint reduction measures.

Benefits of Environment Audit to an Educational Institute

There are many advantages of Environment audit to an Educational Institute.

- It would help to protect the environment in and around the campus.
- Recognize the cost-saving methods through waste minimization and energy conservation.
- Empower the organization to frame a better environmental performance.
- It portrays a good image of the institution through its clean and green campus.
- More efficient resource management.
- To create a green campus.
- To enable waste management through reduction of waste generation, solid and waste.
- To create plastic-free campus and evolve health consciousness among the stakeholders.
- Recognize the cost-saving methods through waste minimizing and managing.
- Authenticate conform it with the implemented laws.



- Empower the organizations to frame a better environmental performance.
- Enhance the alertness for environmental guidelines and duties.
- Impart environmental education through systematic environmental management approach and improving environmental standards.
- Bench marking for environmental protection initiatives.
- Financial savings through a reduction in resource use.
- Development of ownership, personal and social responsibility for the college and its environment.
- Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable to link the management and monitoring of environmental and sustainable development programs of the College.
- Finally, it will help to build a positive impression through green initiatives for the upcoming NAAC visit.

1.0 WATER & WASTEWATER AUDIT

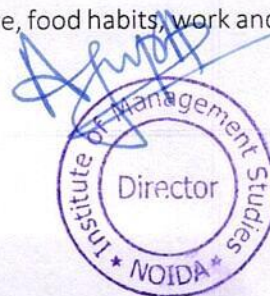
1.1 Introduction

Water is a precious natural national resource available with affixed quantum. The availability of water is decreasing due to the increasing population of the nation as per capita availability of utilized water is going down. Due to the ever-rising standard of living of people, industrialization, urbanization, demand for fresh water is increasing day by day. The unabated discharge of industrial effluent in the available water bodies is reducing the quality of these ample sources of water continuously. Hence, the national mission on water conservation was declared by the Honorable Prime Minister Narendra Modi as 'Jal Shakti Abhiyan' and appealed to all citizens to collectively address the problem of water shortage, by conserving every drop of water and suggesting conducting water audits for all sectors of water use. Water audit can be defined as a qualitative and quantitative analysis of water consumption to identify means of reducing, reusing, and recycling water. Water Audit is nothing but an effective measure for minimizing losses, optimizing various uses, and thus enabling considerable conservation of water in their irrigation sector, domestic, power, and industrial sectors. The measurement of water losses due to different uses in the system or any utility is essential to implement water conservation measures in such an establishment.

1.2 Importance of Water Audit

- Systematic process.
- May some surprising results.
- Easier to work on solutions when the problems are identified.
- Attracting mechanisms can be put into place.

It is observed that several factors like climate, culture, food habits, work and working conditions,

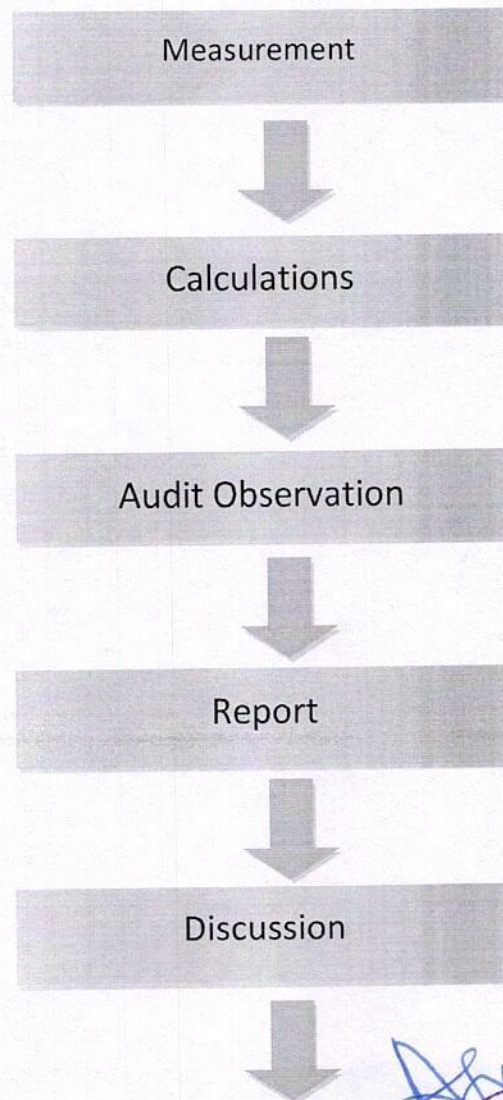


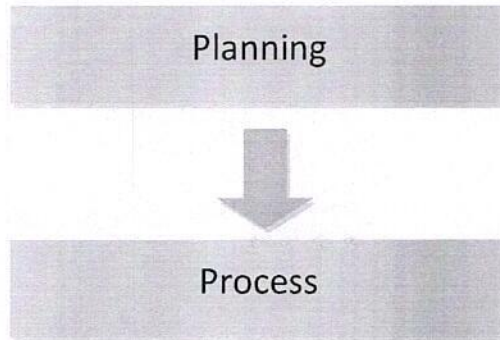
level and type of development, and physiology determine the requirement of water. The community which has a population between 20,000 to 1,00,000 requires 100 to 150 liters per person (capita) per day. The communities with a population over 1,00,000 require 150 to 200 liters per person (capita) per day. As per the standards provided by WHO Regional Office for Southeast Asia Schools requires 2 liters of water per student for drinking purposes; 10-15 liters per student for Water-flush toilets. Administration requires (Staff Accommodation not included) 50 liters per person per day.

1.3 Water Audit

The College is spread in a sprawling lush green campus of 5 acres dotted with buildings of Academic, Administrative and support services. Water usage can be defined as water used for all activities which are carried out on campus from different water sources. This includes usage in all residential buildings / hostel, academic buildings, on-campus, and on-grounds. Wastewater is referred to as the water which is transported off the campus. The wastewater includes sewerage; residence water used in cooking, showering, clothes washing which ultimately go down in the sink or drainage system.

1.4 Water Audit Process





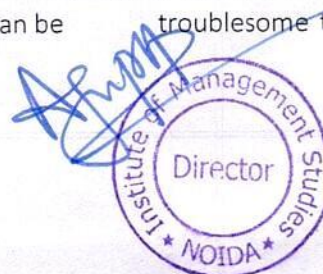
1.5 Water Quality

Primary Water Quality Criteria for Bathing Waters, in a water body or its part, water is subjected to several types of uses. Depending on the types of uses and activities, water quality criteria have been specified to determine its suitability for a particular purpose. Among the various types of uses there is one use that demands the highest level of water quality or purity and that is termed as "Designated Best Use" in that stretch of water body. Based on this, water quality requirements have been specified for different uses in terms of primary water quality criteria. The primary water quality criteria for bathing water are specified along with the rationale in table 1. PRIMARY WATER QUALITY CRITERIA FOR BATHING WATER (Water used for organized outdoor bathing) CRITERIA 1. Fecal Coliform MPN/100ml: & Fecal Streptococci MPN/100ml: 2. pH:3. Dissolved Oxygen: 4. Biochemical Oxygen demand 3-day,27°C: 500 (desirable) 2500 (Maximum Permissible)100 (desirable) 500 (Maximum Permissible) Between 6.5 -8.5 5 mg/1 or more 3 mg/1 or less RATIONALE to ensure low sewage contamination. The desirable and permissible limits are suggested to allow for fluctuation in environmental conditions such as seasonal change, changes in flow conditions etc. The range provides protection to the skin and delicate organs like eyes, nose, ears etc. which are directly exposed during outdoor bathing. The minimum dissolved oxygen concentration of 5 mg/1 ensures reasonable freedom from oxygen consuming organic pollution immediately up stream which is necessary for preventing production of aerobic gases (obnoxious gases) from sediment. The Biochemical Oxygen Demand of 3 mg/1 or less of the water ensures reasonable freedom from oxygen demanding pollutants and prevents production of obnoxious gases.

1.6 Drinking Water Quality

Ganga Jal: Ganga Jal, A symbol of purity is being brought at NOIDA by intercepting from Ganga canal at Masoori dasna, situated in Ghaziabad, 22 KM away from this place. Before reaching to NOIDA, Ganga Jal is being treated at Pratap Vihar, Ghaziabad which is 3.2 KM from this place. Complete treatment process which are required for any surface water are being done at this treatment plant.

Ground Water: Ground water is a natural occurrence. Ground water of Noida City is hard in few pockets. Two common minerals in the Noida soil - magnesium and calcium - dissolve in the water to create "hard water" in Noida, hardness ranges from 108 mg/l to 838 mg/l depending on the water sources. Hard water poses no health risk but can be troublesome to consumer. It



causes soap deposits, in sinks and spots on dishes and faucets. Calcium deposit can also affect pipes, water heaters and dish washers. Two common minerals in the Noida soil - magnesium and calcium - dissolve in the water to create "hard water" in Noida, hardness ranges from 108 mg/l to 838 mg/ depending on the water sources.

1.7 Noida's Efforts for Removal of Hardness

After many studies of experts of this field, this has been recommended that dilution of better quality of water can improve the hardness level of ground water. Then Noida decided to blend Ground water with Ganga water and then supply to residents. NOIDA has engaged M/s WAPCOS to give their recommendation for the ratio of Ganga water required to be mixed with ground water. M/s WAPCOS (Water & Power Consultancy Services (India) Ltd.) is a Govt. of India undertaking consultancy organization. M/s WAPCOS has submitted their report and as per report there is a short fall of 36 MLD of Ganga water for present demand. Presently Noida is having only 20 Cusec (48 MLD) of Ganga water, whereas we require 84 MLD but 48 MLD quantity of Ganga water is found sufficient by WAPCOS for present developed residential sectors, so it is proposed, to distribute in residential area only. Now after great effort at Government level, Noida got success in allotment of 80 Cusec (192 MLD) additional Ganga water. It will take another 2 years to get this water at Noida. Efforts for execution of this project has been started. Noida has given consent to pay Rs. 65 Crore to Irrigation Department for lining work to restrict seepage loss, so that farmers do not get affected due to this diversion of canal water. There are 207 tube wells and 6 Renney wells installed for extraction of ground water, which enable Noida for 222 MLD of water considering 85% working efficiency. Beside this ground water, Noida also has 48 MLD of Ganga water. This enables Noida, capable for 270 MLD of water supply under worst condition. As per CPHEEO (Central Public Health Engineering Environment Organization) norms, 172.50 LPCD is being considered with the provision of 15% on account of wastage. 45 K.L. per Hectare per day is the norm for planning of non-residential area. Water Demand Per Day: (As per WAPCOS Assessment with the presumption of 6.85 Lac population) Total Coliforms Organism MPN/100ml shall be 5000 or less pH between 6 to 9 Dissolved Oxygen 4mg/l or more Biochemical Oxygen Demand 5days 20oC, 3mg/lor less Propagation of Wildlife and Fisheries. PH between 6.5 to 8.5 Dissolved Oxygen 4 mg/l or more Free Ammonia (as N) 1.2 mg/lor less Irrigation, Industrial Cooling, Controlled Waste disposal. PH between 6.0 to 8.5 Electrical Conductivity at 250C micromhos/cm Max. 2250 Sodium absorption Ratio Max. 26 Boron Max. 2mg/l. WHO produces international norms on water quality and human health in the form of guidelines that are used as the basis for regulation and standard setting, in developing and developed countries worldwide. The quality of drinking water is a powerful environmental determinant of health. Assurance of drinking water safety is a foundation for the prevention and control of water borne diseases. The guidelines developed by WHO are prepared through a vast global consultative process involving WHO members Tests (India is the member state), national authorities and international agencies, in consultation with the WHO Expert Advisory Panel.



Parameters	Standard limits as per WHO Guidelines (mg/L)
Acrylamide	0.0005
Alachlor	0.02
Aldicarb	0.01
Aldrin and Dieldrin	0.00003
Ammonia	1.5
Antimony	0.02
Arsenic	0.01
Atrazine	0.002
Barium	0.7
Benzene	0.01
Benzo(?)pyrene	0.0007
Boron	0.5
Bromate	0.01
Bromodichloromethane (BDCM)	0.06
Bromoform	0.1
Cadmium	0.003
Carbofuran	0.007
Carbon tetrachloride	0.004
Chlorate	0.7
Chlordane	0.0002
Chloramines	0.5-1.5



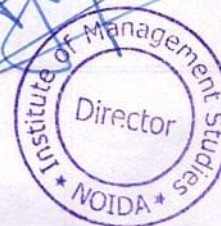
Parameters	Standard limits as per WHO Guidelines (mg/L)
Chloride	200– 300
Chlorine	5
Chlorite	0.7
Chloroform	0.3
Chlortoluron	0.03
Chlorpyrifos	0.03
Chromium	0.05
Colour in drinking water	No visible colour
Copper	2.0
Cyanazine	0.0006
Cyanide	0.07
1,2-Dichlorobenzene	1.0
1,4-Dichlorobenzene	0.3
1,2-Dichloroethane	0.03
Dichloromethane	0.02
2,4-Dichlorophenoxyaceticacid	0.03
DDT and metabolites	0.001
Di(2-ethylhexyl) phthalate	0.008
1,2-Dichloroethylene	0.05
1,2-Dichloropropane	0.04
Dimethoate	0.006



Parameters	Standard limits as per WHO Guidelines (mg/L)
1,4-Dioxane	0.05
Dissolved oxygen	No health-based guideline value is recommended
Eideticacid (EDTA)	0.6
Endrin	0.0006
Epichlorohydrin	0.0004
Ethylbenzene	0.3
Fenoprop	0.009
Fluoride	1.5
Hexachlorobutadiene	0.0006
Iron	No health-based guideline value is proposed
Isoproterenol	0.009
Lead	0.01
Lindane	0.002
Tritium	10000Bq/L
Uranium	0.015
Vinyl chloride	0.0003
Xylenes-total	0.5
Zinc	No health-based guideline value is proposed

Water contains naturally occurring compounds such as lead and arsenic among others. How harmful are these and what is the level of contamination, we must know about.

Both rural and urban India is faced with water problems. People do not have access to good quality, safe drinking water. The source for most drinking water is either rivers or underground aquifers (wells). Since water can dissolve about anything that it meets long enough, often the



ground water we get is nature.

It could contain naturally occurring lead, arsenic, mercury, radium, chloride, iron, and copper compounds dissolved in it. Most of these are not harmful when consumed in small quantities. But when the levels go higher than the prescribed amounts, it could be harmful and sometimes, even fatal. Let's analyze the effects of each of these compounds on our health and understand from the available data which hesitates in India are susceptible to which types of contamination.

1.8 Iron

Iron, which is seldom found in concentrations greater than 10 milligrams per liter (mg/L) or 10 parts per million can be a troublesome chemical in drinking water. Corrosion of pipes is a common reason iron is found in drinking water. As little as 0.3 mg/L concentration of iron can make the water appear brown. Elaborate Raynals is of the water sample Cantell you the extent of your problem. The best way to treat this is to use aeration/ filtration or chlorination techniques. Chlorination is the process of adding the element chlorine to the water to make it fit for human consumption.

1.9 Arsenic

Arsenic is a semi-metal found in various foods and mostly in groundwater. Elevated levels of arsenic lead to metabolism failure in the body causing severe heart diseases, night blindness, cancer and even diabetes. A study conducted by USA today.com states that around 70 countries are affected by arsenic poisoning from groundwater. Assam and West Bengal have high concentrations up to 2.4mg/L and 1.83mg/L respectively.

1.10 Chlorine and Fluoride

Chlorine and fluoride are added to water to kill pathogens, which are disease producing agents. An excess amount of chlorine in the water causes a problem because it leaves behind a residue. This "residual amount", when consumed, reacts inside the stomach, and damages some cells of the organs. Fluoride is added in water just to prevent cavities, whether you have cavities or not! An excess amount of fluoride in water causes tooth discoloration forming yellow or brown pits and patches on teeth. Long term high exposure (more than 4 ppm) to fluoride may also result in bone spurs and birth defects. Rajasthan and Assam have the highest concentrations of these.

1.11 Nitrate

Nitrate, a naturally occurring form of nitrogen, is found in the soil. It is required in large quantities to sustain high crop yields. A tasteless, colorless, and odorless compound, you cannot detect it unless your water is chemically analyzed. If you drink water from a private well, get a qualified laboratory to test it yearly. Times of India reported, "Dental and spine-related ailments are showing up in many cities and villages of Karnataka due to increasing levels of Nitrate concentration in drinking water."

1.12 Sewage treatment capacity of states in India

The major cause of increasing nitrate content is open sewage disposal and the use of nitrogen fertilizers. Since rural sanitation in the country is poor, the presence of nitrates in water is evident



of such contamination. Proper sewage treatment in clouding contaminant sand recycling of wastewater to reuse it for various uses like gardening, toilet flushing, and car washing is necessary to keep these levels down. Currently Maharashtra and Uttar Pradesh have the highest sewage treatment capacity in India in Classic cities. Water supply protection is most effective before contamination occurs. Surface water must never be allowed to flow down in the well. Rainwater and runaway water should be sloped out of a water body. Minimum of 300 feet distance must be maintained between sewage disposal and water supply areas. Also, it is important to locate and eliminate the source of the contamination. For example, lead a Diron Contamination can be eliminated by replacing pipes, fittings, and fixtures. News our cues for water supply should be developed in case the existing supply is extensively contaminated with nitrate, salt, pesticides, and other chemicals. Lastly, water must be treated to remove disinfectants and chemicals.

1.13 INDIAN STANDARDS FOR SAFE DRINKING WATER

The Bureau of Indian Standards (BIS) has specified drinking water quality standards in India to provides are drinking water to the people. It is necessary that drinking water sources is one more guideline for water quality, brought out by the Ministry of Water Resources, Government of India in 2005. This is known as Uniform Protocol for Water Quality Monitoring. A need has arisen to have a separate uniform protocol for Drinking Water Quality Monitoring in view of increasing risk of geogentian anthropogenic contamination.

Keeping in view requirement of preparing Uniform Drinking Water Quality Monitoring Protocol, the Ministry of Drinking Water and Sanitation (MDWS), Government of India constituted an Expert Group which prepared the Protocol. The Drinking Water Quality Monitoring protocol describes specific requirements for monitoring drinking water quality with a view to ensure provision of safe drinking water to the consumers.

1.14 Definition of drinking water quality

BIS has set specifications in IS-10500 and subsequently the revised edition of IS 10500: 2012 in Uniform Drinking Water Quality Monitoring protocol. Some parameters apart from those mentioned in IS 10500: 2012 may also be measured if the States deem it necessary. This standard has two limits i.e., Acceptable limits and permissible limits in absence of alternate source. If any parameter exceeds the limit, that water is considered unfit for human consumption. Broadly speaking water is defined as unfit for drinking as per Bureau of Indian Standards, IS-10500-2012, if it is bacteriologically contaminated (presence of indicator Uniform Drinking Water Quality Monitoring Protocol bacteria particularly E-coli, viruses etc.) or if chemical contamination exceeds maximum permissible limits (e.g. excess fluoride [$>1.5\text{mg/l}$], Total Dissolved Solids (TDS) [$>2,000\text{ mg/l}$], iron [$>0.3\text{ mg/l}$], manganese [$>0.3\text{mg/l}$], arsenics [0.05mg/l], nitrates [$>45\text{ mg/l}$] et



As per CPCB drinking water specification and test protocol are

Sr. No.	Test Parameter	IS: 10500-2012 Drinking Water Specification (Second Revision)		Method of Test (Indian Standard IS:3025 Methods of Sampling and Test for Water and Waste Water)
		Requirement (Acceptable limit)	Permissible limit In the Absence of alternate source	
1.	Odor	Agreeable	Agreeable	IS:3025 Part 5
2.	Taste	Agreeable	Agreeable	IS:3025 Part 8
3.	pH value	6.5 – 8.5	No relaxation	IS:3025 Part 11
4.	Turbidity, NTU, Max	1	5	IS:3025 Part 10
5.	Total dissolved solids (TDS), mg/l, Max	500	2000	IS:3025 Part 16
6.	Total alkalinity as CaCO ₃ , mg/l, Max	200	600	IS:3025 Part 23
7.	Total hardness as CaCO ₃ , mg/l, Max	200	600	IS:3025 Part 21
8.	Calcium as Ca, mg/l, max	75	200	IS:3025 Part 40
9.	Magnesium as Mg, mg/l, Max	30	100	IS:3025 Part 46
10.	Chloride as Cl, mg/l, Max	250	1000	IS:3025 Part 32



IS: 10500-2012				
Drinking Water Specification (Second Revision)				
Sr. No.	Test Parameter	Requirement (Acceptable limit)	Permissible limit In the Absence of alternate source	Method of Test (Indian Standard IS:3025 Methods of Sampling and Test for Water and Waste Water)
11.	Residual Free Chlorine, mg/l, Min*	0.2	1	IS:3025 Part 26
12.	Sulphate as SO ₄ , mg/l, max	200	400	IS:3025 Part 24
13.	Nitrate Nitrogen as NO ₃ , mg/l, Max	45	No relaxation	IS:3025 Part 34
14.	Fluoride as F, mg/l, Max	1.0	1.5	IS:3025 Part 60
15.	Total Iron as Fe, mg/l, Max	0.3	No relaxation	IS:3025 Part 53
16.	Coliform MPN/100 ml	Shall not be detectable in any 100 ml sample	Indian Standard IS:1622, Methods of Sampling and Microbiological Examination of water.	
17.	Fecal Coliform, Presence/Absence	Shall not be detectable in any 100 ml sample		
18.	E. coli, Presence/	Shall not be detectable in any		



IS: 10500-2012				
Drinking Water Specification (Second Revision)				
Sr. No.	Test Parameter	Requirement (Acceptable limit)	Permissible limit In the Absence of alternate source	Method of Test (Indian Standard IS:3025 Methods of Sampling and Test for Water and Waste Water)
	Absence	100 ml sample		

1.15 As per Central Pollution Control Board Report

General range of Important Chemical Constituents

Sr. No.	Constituent	Range		ISI Standards Desirable	Permissible
		Min	Max		
1	pH	7.43	8.90	6.5-8.5	No range
2	E.C/ μ S/cm at 25°C	110	3263	750	3000
3	Total Hardness (mg/l)	45	660	300	600
4	Ca(mg/l)	8	166	75	200
5	Mg(mg/l)	1.0	113	30	100
6	Na(mg/l)	5.0	506	-	-
7	K (mg/l)	1.0	180	-	-
8	CO ₃ (mg/l)	Nil	87	-	-
9	HCO ₃ (mg/l)	24	634	-	-
10	Cl(mg/l)	7.0	695	250	1000
11	SO ₄ (mg/l)	0.5	192	200	400



Sr. No.	Constituent	Range		ISI	Permissible
		Min	Max	Standards Desirable	
12	NO ₃ (mg/l)	0.4	249	45	100
13	F (mg/l)	0.04	1.6	1.0	1.5

1.16 Water Quality Samples

Sample Quality of water in terms of pH, TDS, EC. at IMS Noida U.P

Sr. No.	Place from where water sample collected	pH	Permissible Value	TDS	Permissible Value	Electrical Conductivity E.C./μS/cm at 25°C	Permissible Value
	1	2	3	4	5	6	7
1	Block A & B (RO Water)	7.29	6.5 - 8.5	37	500 ppm	108	200 to 800 μS/cm
2	Block C & D (RO Water)	7.36	6.5 - 8.5	63	500 ppm	126	200 to 800 μS/cm
3	Block A & B (Tap Water)	7.07	6.5 - 8.5	1035	500 ppm	2070	200 to 800 μS/cm
4	Block C & D (Tap Water)	7.25	6.5 - 8.5	544	500 ppm	1088	200 to 800 μS/cm
5	B Block Girls Hostel (RO Water)	6.76	6.5 - 8.5	37	500 ppm	74	200 to 800 μS/cm
6	Ground Water for staff	7.01	6.5 - 8.5	80	500 ppm	160	200 to 800 μS/cm




1.17 Test for Bacteria presence in water

Sr. No	Sample collected from	Process adopted to test for bacteria	Result v Presence of Bacteria	Chlorination in ppm IS:3025Part 26	Result
1	Block A & B (RO Water)	It was tasted through site sample kit provided by Prerena Laboratories	Negative	0.3	Safe For drinking
2	Block C & D (RO Water)		Negative	0.2	Safe For drinking
3	Block A & B (Tap Water)		Negative	0.2	Safe For drinking
4	Block C & D (Tap Water)		Negative	0.2	Safe For drinking
5	B Block Girls Hostel (RO Water)		Negative	0.3	Safe For drinking
6	Ground Water for staff		Negative	0.2	Safe For drinking

1.18 Test for Copper, Sulphates and Fluorides

Sr. No.	Sample	Hardness testing ppm	Copper ppm	Fluorides F, mg/l, Max	Permissible limit mg/l,	Presence of Sulphates Mg/l	Permissible Limit Mg/L
1	Block A & B (RO Water)	100	Less than 0.05	0.65	1.0 mg/l IS:3025 Part 60	120	200 Acceptable limits IS:3025 Part 24
2	Block C & D (RO Water)	100	Less than 0.05	0.68		110	
3	Block A & B (Tap Water)	100	Less than 0.05	0.66		122	
4	Block C&D (Tap Water)	100	Less than 0.05	0.67			
5	B Block Girls Hostel (RO Water)	100	Less than 0.05	0.68			
6	Ground Water for staff	100	Less than 0.05	0.66			



Total 9 parameters of water were tested in field test. Except Block A & B (Tap Water) and Block C & D (Tap Water) TDS level is high according to IS 10500:2012 rather than all the results were within permissible limits of Indian Standards.

1.19 Groundwater

Noida is however safe for drinking as per the Ground water report, but it is recommended to send samples to State Pollution Control Board Approved Laboratory for testing.

1.20 Groundwater Quality

A. Color

Color is measured in Platinum Cobalt Scale. The color obtained in all the groundwater samples is 1 or less than 1.

B. pH

The pH value ranges between 6.5 and 8.5. The lowest value is observed in B Block Girls Hostel (RO Water) i.e., 6.76 whereas higher pH values were observed in samples Block C & D (RO Water) i.e., 7.36, all the groundwater samples showed good pH range or values. It is also observed that all the water samples lie in the range of 6.5 – 8.5 prescribed by Indian Standards for Drinking Water.

C. Turbidity

Turbidity is measured in the Nephelometric Turbidity Unit (NTU). The turbidity for nearly all the samples remained less than 1 NTU except for sample GW-10 and GW-15, the turbidity lies in the range 2 – 4.5 NTU. The reason for the high values may be due to organic contaminants coming into the well.

D. Electrical Conductivity

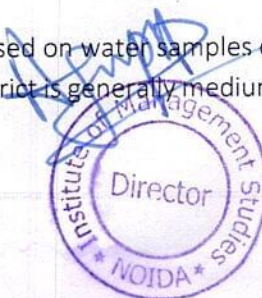
Electrical conductivity (EC) is a useful tool to evaluate the purity of water. Maximum EC is recorded in Block A & B (Tap Water) (2070 $\mu\text{S}/\text{cm}$) and the minimum EC at B Block Girls Hostel (RO Water) (74 $\mu\text{S}/\text{cm}$).

E. Total Dissolved Solids

The Total Dissolved Solids (TDS) of the water samples ranged from 425 mg/L to 1035 mg/L. TDS value of 37 ppm is shown by sample Block A & B (RO Water) & B Block Girls Hostel (RO Water), whereas Block A & B (Tap Water) showed a value of 1035 mg/l. Whereas TDS of RO water ranged between 55 to 100 mg/l.

F. Quality of ground water for drinking

Ground water quality in Noida is assessed annually by CGWB based on water samples collected from hydrograph stations in the district. Ground water in the district is generally medium to high



saline as electric conductivity values vary between 586 to 3780 $\mu\text{s}/\text{cm}$. Nitrate in the ground water of Gautam Buddha Nagar district is varying between 0.5 to 296 mg/l. Nitrate more than 45 mg/l was found in four villages namely Sanwer (52 mg/l), Hatod (79 mg/l), Machal (139 mg/l) and Ushapura (177 mg/l). High nitrate in the village area is apparently due to excessive use of fertilizers and agricultural waste. The total hardness of groundwater in the district is generally under safe limit as per BIS standards. Fluoride in the district is in the range of 0.12 to 0.48 mg/l, i.e., well below 1.5 mg/l. No arsenic has been detected in the district.

G. Quality of water for irrigation

High SAR is not good for irrigation as it leads to sodium hazard. Water samples in the district generally fall in C2 S1, C3 S1 and C4 S1 classes of US salinity diagrams. However, ground water in the district is generally safe for irrigation but a proper drainage system is required where EC is more than 1500 $\mu\text{s}/\text{cm}$. According to International Journal of preventive medicine research Potential Health Impacts of Hard Water PMID: PMC3775162 PMID: 24049611, Int J Prev. Med. 2013 Aug; 4(8): 866 875.

H. pH value

A pH of 7 is considered neutral. That "seven" number is considered neutral or balanced between acidic and alkaline. If water is below 7 on the pH scale, it's "acidic." If it's higher than 7, it's "alkaline." EPA guidelines state that the pH of tap water should be between 6.5 and 8.5.

Acidic water with a pH of less than 6.5 is more likely to be contaminated with pollutants, making it unsafe to drink. It can also corrode (dissolve) metal pipes.

Many municipal water suppliers voluntarily test the pH of their water to monitor for pollutants, which may be indicated by a changing pH. When pollutants are present, water companies treat their water to make it safe to drink again.

I. Alkaline water

Alkaline water has become a popular drinking water choice over the past few years. Some people say that drinking slightly alkaline water — with a pH between 8 and 9 — can improve your health. They say it may make you age more slowly, maintain a healthy pH in your body, and block chronic disease like cancer.

J. Electrical Conductivity of Water

Pure water is not a good conductor of electricity. Ordinary distilled water in equilibrium with carbon dioxide of the air has a conductivity of about $10 \times 10^{-6} \text{ W}^{-1} \cdot \text{m}^{-1}$ (20 dS/m). Because the electrical current is transported by the ions in solution, the conductivity increases as the concentration of ions increases. Electrical conductivity (EC) is a measurement of water's ability to conduct electricity. EC is related to water temperature and the total concentration, mobility, valence and relative concentration of ions. Higher EC means more electrolytes in the water. The reason that the conductivity of water is important is because it can tell you how much dissolved substances, chemicals, and minerals are present in the water. Higher amounts of these impurities will lead to a higher conductivity.



Types of water	Conductivity Value
Pure distilled and Deionized water	0.05 $\mu\text{S}/\text{cm}$
Seawater	50 mS/cm
Drinking water	200 to 800 $\mu\text{S}/\text{cm}$.
Rain or Snow water	2 to 100 $\mu\text{S}/\text{cm}$

$\mu\text{S}/\text{cm}$ means micro-Siemens per centimeter, a measure of electrical conductivity; it is equal to $\mu\text{mhos}/\text{cm}$; BASIS FOR CHANGE: The Department proposes to add this definition, which is the measure of conductivity in the International System of units, and to substitute it for $\mu\text{mhos}/\text{cm}$ throughout the Standards. 1 PPM is equal to 1.56 micro-S/cm.

K. Sulphates in drinking water

People who are not used to drinking water with high sulfate can get diarrhea and dehydration from drinking the water. Infants are often more sensitive to sulfate than adults. To be safe, only use water with a sulfate level lower than 500 milligrams per liter (mg/L) to make infant formula. Older children and adults may get used to high sulfate levels after a few days.

L. Presence of Copper in water

How to Protect Yourself and Your Family Drinking water with more than 1,300 micrograms of copper per liter of water ($\mu\text{g}/\text{L}$) can be a health risk for everyone. Infants and people with Wilson's disease may need water with an even lower level of copper to stay safe. Copper can get into your drinking water as it passes through your plumbing system. Over time, plumbing parts with copper in them usually build up a natural coating that prevents copper from being dissolved into the water. Plumbing systems with copper parts fewer than three years old usually have not had time to build up this protective coating.

M. Presence of Fluorides in drinking water

Fluoride prevents tooth decay by making teeth stronger and more resistant to acid attacks. It also helps with slowing down or stopping the decay process. When fluoride levels in water are at optimal levels, it helps to protect teeth against cavities. Excess amounts of fluoride ions in drinking water can cause dental fluorosis, skeletal fluorosis, arthritis, bone damage, osteoporosis, muscular damage, fatigue, joint-related problems, and chronic issues.

1.21 Water Quantity

A. According to the report

According to STATE ENVIRONMENTAL PLAN Uttar Pradesh Department of Environment



Government of Uttar Pradesh, Uttar Pradesh is a state located in northern India and is one of the most populous states in the country. The state is crisscrossed by several major rivers, including the Ganges, Yamuna, and Ghaghara, as well as several smaller rivers and tributaries. These rivers are the primary source of water for the state and are used for irrigation, drinking water supply, and industrial purposes. According to the Central Ground Water Board, the state has a total annual replenishable groundwater resource of 63.60 billion cubic meters (BCM), of which 36.48 BCM is the net annual groundwater availability. The state also has several large reservoirs and dams, including the Tehri Dam on the Bhagirathi River, which provides hydroelectric power and water for irrigation and drinking water supply. Overall, Uttar Pradesh is a water-rich state, but the availability and distribution of water vary across the state and can be influenced by factors such as population growth, climate change, and water management practices.

B. Methodology for reduction in water consumption

Here are a few methods that can reduce the usage of water inside buildings:

- Rainwater Harvesting. Rainwater Harvesting is a method that can be quite easily implemented.
- Water Metering
- Pressure reducing valves.
- Water-saving showerheads
- Grey water Recycling system
- Smart irrigation systems
- Water-efficient toilets
- Float valves on the tanks above the quarters/ homes and buildings

C. Broadly speaking, you can reduce your direct water footprint by

- Turning off the tap while brushing your teeth.
- Using water-saving toilets.
- Installing a water-saving shower head.
- Taking shorter showers.
- Only wash clothes when necessary.
- Fixing household leaks.
- Using less water in the garden and when cleaning. Preferably use recycled water.
- Adopting drip irrigation methods.

D. Broadly speaking, you can reduce your direct water footprint by

- Turning off the tap while brushing your teeth.
- Using water-saving toilets.
- Installing a water-saving shower head.
- Taking shorter showers.
- Only wash clothes when necessary.
- Fixing household leaks.
- Using less water in the garden and when cleaning. Preferably use recycled water.



- Adopting drip irrigation methods.

E. Measure daily consumption data

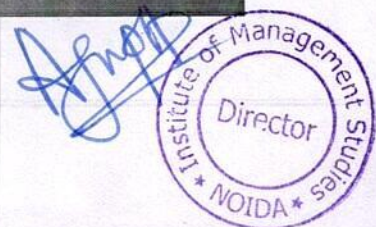
As per Central Ground Water Authority As a general rule the following rates per capita per day may be considered for domestic and nondomestic needs: a) For communities with populations up to 20,000: b) For communities with : 100 to 135 lphd population 20,000 to 100,00 together with full flushing system c) For communities with population: 150 to 200 lphd above 100,000 together with full flushing system Note—The value of water supply given as 150 to 200 liter per head per day may be reduced to 135 liter per head per day for houses for Medium Income Group (MIG) and Low Income Groups (LIG) and Economically Weaker Section of Society (EWS), depending upon prevailing conditions and availability of water. Out of the 150 to 200 liters per head per day, 45 liters per head per day may be taken for flushing requirements and the remaining quantity for other domestic purposes.

1.22 Water consumption in the College

From the data collected for the water audit of IMS, Noida, the water distribution and water consumption pattern are noticed as follows for daily consumption of 157.8 kL of water.

Water Consumption at IMS, Noida

Sector	Daily Consumption in ltr	Daily Consumption in kL	Monthly Consumption in kL	Yearly Consumption in kL	Percentage
Bathroom	45000	45	1350	16200	28.52
Toilet	16000	16	480	5760	10.14
Gardening	42000	42	1260	15120	26.62
Urinals	7000	7	210	2520	4.44
Washbasin	10800	10.8	324	3888	6.84
Washing	13000	13	390	4680	8.24
Mess	23000	23	690	8280	14.58
Unaccounted Leakage	1000	1	30	360	0.63
Total	157800	157.8	4734	56808	100.00



OBSERVATION: From the above table it is observed that a total of 157.8 kL of ground water being taken every day for the need of college. The consumption is comparatively balance in nature. However, the leakages are 1 kL which need to be found out & plugged accordingly.

157.8 kL of water per day is drawn through ground water resources. After recycling the grey water, 5000 liter is being used for irrigation purpose, washing the areas and 3500 liter of recycled water is used for ground water recharge. Thus, a saving of 8500 liter of water.

Yearly Average Water Consumption at IMS Noida

The Figure shows the total percentage of water consumed by all the Building Blocks of IMS College, Noida. The figure shows that bathrooms, gardening and mess as the major sources of water utilization comprising 28.52%, 26.62%, and 14.58% respectively. The other uses namely, toilet, washing, washbasin and urinals consume water with yearly water requirements of 10.14%, 8.24%, 6.84%, and 4.44% respectively. Further the loss is about 0.63% only.

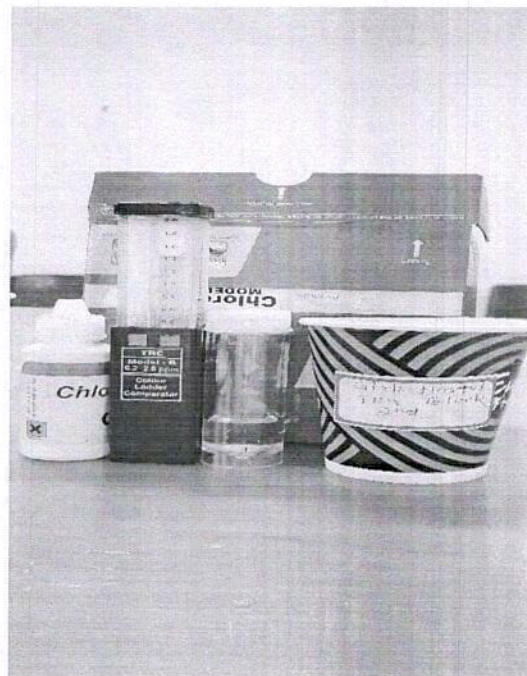
Sustainable Water Practices

Watershed Management Practices

IMS College has taken many initiatives in water conservation and management of water available on the campus. Now, the college is self-reliant through decentralized water conservation and management practices.

Wastewater Filtration Tank

The college campus grey water is there using for washing and gardening purposes.



Field Test of Quality of water (Copper, Fluorides, TDS, Hardnes



1.23 Rainwater Harvesting Units

The underground water table is decreasing day by day & minute by minute. There is no attempt to replenish the groundwater table with rainwater during the monsoon & other rainy days. Rainwater harvesting is the simple collection or storing of water through scientific techniques from the areas where the rain falls. It involves the utilization of rainwater for domestic or agricultural purposes. The method of rainwater harvesting has been in practice since ancient times. It is as far from the best possible way to conserve water and awaken society towards the importance of water. The method is simple and cost-effective too. It is especially beneficial in the areas, which face the capacity of water. We can see that the People usually make complaints about the lack of water. During the monsoons, lots of water goes waste into the gutters. And this is when Rainwater Harvesting proves to be the most effective way to conserve water. We can collect the rainwater into the tanks and prevent it from flowing into drains and being wasted. It is practiced on a large scale in metropolitan cities. Rainwater harvesting comprises the storage of water and water recharging through the technical process.

- Non-teaching staff or peons in the concerned section should take responsibility for monitoring the overflow of water tanks.
- A Large amount of water is wasted during the practical process in science laboratories. Designs of small water recycling systems help to reuse water.
- Producing distilled water in the laboratories required a large amount of water to the distillate. To reduce 1 liter of distilled water required more than 33 liters of water. To avoid more wastage, the College should design a common distillation plant for the Science Department.
- Reduce chemical waste formation in the Chemistry laboratory; adopt the principles of green chemistry to reduce chemical waste.
- Pipes, overhead tanks, and plumbing systems should be maintained properly to reduce leakages and wastages of water.
- College should install its own Sewage Treatment Plant (STP). By doing so there will be a great reduction in water usage, as the water after treatment can be used for various purposes in the College.

As College is already having multiple units of Rainwater Harvesting Units. It will certainly add value to meet the mission of water conservation. And help in increasing the ground water table.



2.0 Air Quality Audit

2.1 National Ambient Air Quality Program (NAAQM)

Central Pollution Control Board, New Delhi initiated National Ambient Air Quality Monitoring program in the year 1984 to get a spatial and temporal variation of ambient air concentrations for a wide range of pollutants that are considered relevant for evolving strategic management plan. The program was subsequently renamed NAMP (National Air Quality Monitoring Program). Under NAMP, three air pollutants viz Sulphur dioxide (SO₂), Nitrogen dioxides (NO₂), and Repairable Suspended Particulate Matter (RSPM/PM10) have been identified for regular monitoring at three locations. Monitoring of pollutants has been carried out for 24 hours (4- hourly sampling for gaseous pollutants and 8-hourly sampling for particulate matter) as per CPCB monitoring protocol. One Repairable Dust Sampler (RDS) machine is installed at the Main Gate of the College Campus which monitors the changes in ambient air quality during 24- hours. IMS College, Noida monitors air pollution regularly under National Ambient Air Quality Monitoring Program, Central Pollution Control Board, New Delhi.

The objectives of air quality standards are:

- To indicate the levels of air quality necessary with an adequate margin of safety to protect the public.
- Health, vegetation, and property.
- To assist in establishing priorities for abatement and control of pollutant level.
- To provide uniform yardstick for assessing air quality at national level.
- To indicate the need and extent of the monitoring programs.

City	Noida
State	Uttar Pradesh
Location	(28.47 ° N, 77.48 ° E, and 201 m above mean sea level)
Area	203 km ²
Population	8,77,000



Climate	<p>In Noida, the wet season is hot, oppressive, and partly cloudy and the dry season is warm and mostly clear. Over the course of the year, the temperature typically varies from 47°F to 103°F and is rarely below 42°F or above 110°F.</p> <p>Based on the beach/pool score, the best times of year to visit Noida for hot-weather activities are from late March to mid-May and from late September to late October.</p>
Geography	<p>New Okhla Industrial Development Authority, popularly known as Noida is a city in the north Indian state of Uttar Pradesh. It came into existence on April 17, 1976. From then to now, Noida has seen tremendous developmental changes. Today it is a well-planned and integrated city. It is known for its modern infrastructure, wide roads and contemporary lifestyle. Due to its close proximity to the national capital, New Delhi is has become a preferred choice for both commercial and residential purposes. Noida is certainly an indispensable part of NCR and is spread over an expansive 20,316 hectares</p>
Industries	<p>Manufacturing companies in Noida, Uttar Pradesh, India, including financial statements, sales and marketing contacts, top competitors, and firmographic insights. Dun & Bradstreet gathers Manufacturing business information from trusted sources to help you understand company performance, growth potential, and competitive pressures. View 16,566 Manufacturing company profiles below.</p>
Air Quality Stations	<p>8 (5 residential, 3 industrial)</p>
Air Quality Trend	<ul style="list-style-type: none"> • Uttar Pradesh Pollution Control Board (UPPCB) says, dust is the major source of pollution in most NCR districts, followed by industrial emissions. • An August 2018 report says, PM10 is the most prominent pollutant in NCR cities. In Noida, during the summer months, 47% of the PM10 in the atmosphere was because of dust, 22% was contributed by industries, 13% by vehicles, 12% by biomass, and 6% by others. During winters, 29% of the PM10 was caused by dust, 25% each by industries and vehicles, 12% by biomass, and 9% by others.



Sulphur dioxide (SO₂):

SO₂ is the chemical compound pro SO₂ is the chemical compound produced by volcanoes and in various industrial processes and is also a precursor to particulates in the atmosphere.

Oxides of Nitrogen (NO_x):

Oxides of nitrogen are a generic term for a group of highly reactive gases that contain nitrogen and oxygen in varying amounts. NO_x is emitted as nitrogen oxide (NO) which is rapidly oxidized to more toxic nitrogen dioxide (NO₂) Nitrogen dioxide (NO₂) is a reddish-brown toxic gas with a characteristic sharp, biting odor and is a prominent air pollutant.

Carbon monoxide (CO):

CO poisoning occurs when carbon monoxide builds up in your bloodstream. When too much carbon monoxide is in the air, your body replaces the oxygen in your red blood cells with carbon monoxide. This can lead to serious tissue damage, or even death. Carbon monoxide is a colorless, odorless, tasteless gas produced by burning gasoline, wood, propane, charcoal, or other fuel. Improperly ventilated appliances and engines, particularly in a tightly sealed or enclosed space, may allow carbon monoxide to accumulate to dangerous levels.

Carbon Dioxide (CO₂):

Carbon dioxide (CO₂) is an important heat-trapping gas, or greenhouse gas, that comes from the extraction and burning of fossil fuels (such as coal, oil, and natural gas), from wildfires, and from natural processes like volcanic eruptions. The first graph shows atmospheric CO₂ levels measured at Mauna Loa Observatory, Hawaii, in recent years, with natural, seasonal changes removed. The second graph shows CO₂ levels during Earth's last three glacial cycles, as captured by air bubbles trapped in ice sheets and glaciers.

Since the beginning of industrial times (in the 18th century), human activities have raised atmospheric CO₂ by 50% – meaning the amount of CO₂ is now 150% of its value in 1750. This is greater than what naturally happened at the end of the last ice age 20,000 years ago.

The animated map shows how global carbon dioxide has changed over time. Note how the map changes colors as the amount of CO₂ rises from 365 parts per million (ppm) in



2002 to over 400 ppm currently. ("Parts per million" refers to the number of carbon dioxide molecules per million molecules of dry air.) These measurements are from the mid-troposphere, the layer of Earth's atmosphere that is 8 to 12 kilometers (about 5 to 7 miles) above the ground.

Formaldehyde (HCHO) As a Hazardous Air Pollutant

Formaldehyde (HCHO) is the most important carcinogen in outdoor air among the 187 hazardous air pollutants (HAPs) identified by the U.S. Environmental Protection Agency (EPA), not including ozone and particulate matter. However, surface observations of HCHO are sparse and the EPA monitoring network could be prone to positive interferences. Here we use 2005–2016 summertime HCHO column data from the OMI satellite instrument, validated with high-quality aircraft data and oversampled on a 5 × 5 km² grid, to map surface air HCHO concentrations across the contiguous U.S. OMI-derived summertime HCHO values are converted to annual averages using the GEOS-Chem chemical transport model. Results are in good agreement with high-quality summertime observations from urban sites (–2% bias, $r = 0.95$) but a factor of 1.9 lower than annual means from the EPA network. We thus estimate that up to 6600–12 500 people in the U.S. will develop cancer over their lifetimes by exposure to outdoor HCHO. The main HCHO source in the U.S. is atmospheric oxidation of biogenic isoprene, but the corresponding HCHO yield decreases as the concentration of nitrogen oxides (NO_x ≡ NO + NO₂) decreases. A GEOS-Chem sensitivity simulation indicates that HCHO levels would decrease by 20–30% in the absence of U.S. anthropogenic NO_x emissions. Thus, NO_x emission controls to improve ozone air quality have a significant benefit in reducing HCHO-related cancer risks.

Total Volatile Organic Compounds (TVOC)

Definition of TVOC There are different classifications of Total Volatile Organic Compounds (TVOC). Most used is the World Health Organization (WHO) definition¹, which differentiates the volatility (or boiling point) of organic compounds to define Very Volatile Organic Compounds (VVOCs), Volatile Organic Compounds (VOC) and Semi-Volatile Organic Compounds (SVOCs) as defined in Table 1. This usually involves the molecular length of the carbon structure, i.e., the number of carbon atoms in the chemical formula. The summation of all VOCs is called the Total Volatile Organic Compounds (TVOC). The volume of gas per classification and the sum of all gases (TVOC) are important reflections of the relevant organic compounds found in indoor air. Classifications of Volatile Organic Compounds

Class Name	Typical Boiling Point [°C]
VVOC Very Volatile Organic Compound	< Typical Number of Carbon Molecules
Example 0 to (50 VOC Volatile Organic Compound (50 — 100)	< C6 Formaldehyde 100)
to (240 SVOC Semi Volatile Organic Compound (240 — 260)	C6 to C16 Benzene 260)
to (380 TVOC Total Volatile Organic Compounds ⁴⁰⁰)	> C16 Dissonance phthalate Sum of all TVOC as an Indicator for Indoor Air Quality compounds shows some of the reasons for concern about the TVOC inside buildings. The TVOC is considered an important indicator for indoor hygiene and indoor air quality (IAQ). In addition to serious health concerns, there is the psychological aspect: homes, offices, and other



environments that smell clean typically seem more welcoming than areas with foul odors caused by organic compounds.

Common Volatile Organic Compounds in Indoor Spaces and their Sources Volatile organic compounds are pervasive both outdoors and indoors. Depending on the interior decoration and usage, a room might be polluted with different organic compounds at the same time. Many volatile organic compounds have a chemical similar structure, which makes it difficult or sometimes impossible to distinguish between these in a VOC gas mixture. More information on detection of the TVOC can be found in Renesas' Application Note – TVOC Sensing. VOCs that Contribute to Poor Air Quality and their Sources

Chemical Class	Chemical Examples	Source
Alkanes	n Butane, n Pentane, n Hexane, n n-Octane, Cyclohexane	Heptane, Aerosol spray products for some paints, cosmetics, automotive exhaust products, leather treatments, paint thinner, oil based paints, spot removers, aerosol/liquid insect pest products, mineral spirits, furniture polishes
Alkenes	Isobutylene, Ethylene	Solvents, fruit ripening, pest control, rubber production
Aromatics	BTEX (Benzene, Toluene, Ethylbenzene, Xylene), Dichlorobenzene, Naphthalene, Styrene	Tobacco smoke, moth balls, moth flakes, deodorizers, air fresheners, automotive exhaust products, paint thinner, oil based paints, aerosol/liquid insect pest products, mineral spirits, furniture polishes, rigid foam products, contact cement, model cement, tar board, plasticizer.

Particulate Matter (PM)

PM stands for particulate matter (also called particle pollution): the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

Particle pollution includes:

- **PM₁₀**: inhalable particles, with diameters that are generally 10 micrometers and smaller; and
- **PM_{2.5}**: fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.
- How small is 2.5 micrometers? Think about a single hair from your head. The average human hair is about 70 micrometers in diameter – making it 30 times larger than the largest fine particle.

Particulate Matter 10 (PM₁₀)

Using a nationwide network of monitoring sites, EPA has developed ambient air quality trends for particle pollution, also called Particulate Matter (PM). PM₁₀ describes inhalable particles, with diameters that are generally 10 micrometers and smaller.



Under the Clean Air Act, EPA sets and reviews national air quality standards for PM. Air quality monitors measure concentrations of PM throughout the country. EPA, state, tribal and local agencies use that data to ensure that PM in the air is at levels that protect public health and the environment. Nationally, average PM₁₀ concentrations have decreased over the years.

Particulate Matter 2.5 (PM_{2.5})

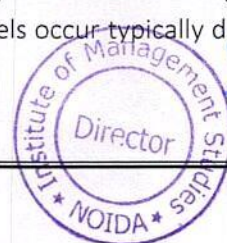
Fine particulate matter (PM_{2.5}) is an air pollutant that is a concern for people's health when levels in air are high. PM_{2.5} are tiny particles in the air that reduce visibility and cause the air to appear hazy when levels are elevated. Outdoor PM_{2.5} levels are most likely to be elevated on days with little or no wind or air mixing. The New York State Departments of Health (DOH) and Environmental Conservation (DEC) alert the public by issuing a PM_{2.5} Health Advisory when PM_{2.5} concentrations in outdoor air are expected to be unhealthy for sensitive groups.

The term fine particles, or particulate matter 2.5 (PM_{2.5}), refers to tiny particles or droplets in the air that are two- and one-half microns or less in width. Like inches, meters and miles, a micron is a unit of measurement for distance. There are about 25,000 microns in an inch. The widths of the larger particles in the PM_{2.5} size range would be about thirty times smaller than that of a human hair. The smaller particles are so small that several thousands of them could fit on the period at the end of this sentence.

Particles in the PM_{2.5} size range can travel deeply into the respiratory tract, reaching the lungs. Exposure to fine particles can cause short-term health effects such as eye, nose, throat and lung irritation, coughing, sneezing, runny nose, and shortness of breath. Exposure to fine particles can also affect lung function and worsen medical conditions such as asthma and heart disease. Scientific studies have linked increases in daily PM_{2.5} exposures with increased respiratory and cardiovascular hospital admissions, emergency department visits and deaths. Studies also suggest that long term exposure to fine particulate matter may be associated with increased rates of chronic bronchitis, reduced lung function and increased mortality from lung cancer and heart disease. People with breathing and heart problems, children and the elderly may be particularly sensitive to PM_{2.5}.

Ozone (O₃):

Ozone is a pale blue gas, soluble in water and nonpolar solvents with a specific sharp odor somewhat resembling chlorine bleach. Ozone is a secondary pollutant formed in the atmosphere by reaction between oxides of nitrogen and volatile organic compounds (VOCs) in the presence of sunlight. Peak O₃ levels occur typically during



the warmer times of the year.

Lead (Pb):

Lead is a bright silvery soft, dense, ductile, highly malleable, bluish-white metal that has poor electrical conductivity and is highly resistant to corrosion.

2.2 Ambient Air Quality in the IMS College Campus Area

PRESENCE OF POLLUTION IN AIR QUALITY TESTING AT IMS College, Noida on Date -15th May 2022

Sr. No.	Locations	CO	CO ₂	HCHO	TVOC
1	Football Ground	26	436	0.019	0.02
2	Block D (Inside)	10	467	0.025	0.3
3	Block D (outside)	11	498	0.024	0.4
4	Block A (Inside)	13	481	0.029	0.6
5	Block A (outside)	49	476	0.052	0.8
6	Canteen Area	41	464	0.058	0.9
7	Girls Hostel, Outside	26	502	0.039	0.7
8	Girls Hostel, Dia Block, Inside	8	515	0.017	0.2
9	Girls Hostel, IMS Block, Inside	13	524	0.022	0.2
10	Mess	49	504	0.083	0.6
11	Reception	29	488	0.04	0.5

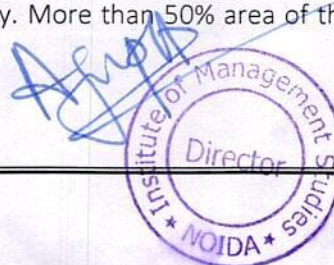


AQI Chart

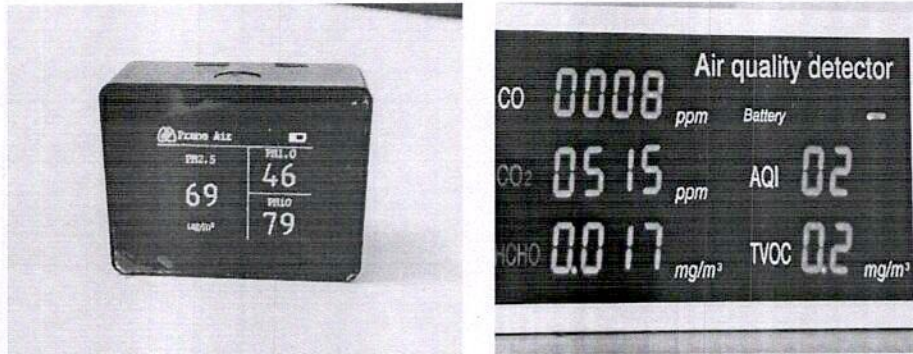
Sr. No.	Locations	AQI	PM _{2.5}	PM ₁₀	PM _{1.0}	PC < 0.5
1	Football Ground	64	64	80	46	3022
2	Block D (Inside)	79	79	91	52	3620
3	Block D (outside)	82	82	10	51	3891
4	Block A (Inside)	69	69	79	46	2984
5	Block A (outside)	92	92	84	49	3016
6	Canteen Area	83	83	72	40	3568
7	Girls Hostel, Outside	71	67	78	46	2015
8	Girls Hostel, Dia Block, Inside	65	65	82	49	3108
9	Girls Hostel, IMS Block, Inside	69	69	84	50	2814
10	Mess	72	72	85	48	3223
11	Reception	81	81	88	50	3219

NOTE: Total 9 parameters of Ambient Air Quality was checked at 11 locations in whole campus area. Parameters of AQI of every place were within limits.

The Central Pollution Control Board, New Delhi has set guidelines to monitor and analyze the air pollution quality parameters. The trees covered on the campus are the leading sources to absorb CO₂ and release enough fresh O₂ across the College Campus. The result shows that IMS, Noida Campus's air quality status is good as compared to other locations. It is identified that IMS' campus is a green campus. College campus observed minimum air pollution as compared to other Ambient Air Pollution Centers located in different parts of the city. More than 50% area of the



College is full of lush greenery which has contributed much for its achievement over such an excellent AQI.



Air Quality Test

Field test conducted for different parameters of Air Ambient Quality at IMS College, Noida



3.0 Waste Management

3.1 Objectives

The overall objectives of the waste management assessment are summarized below:

- (i) To assess the activities involved for the proposed and determine the type, nature and estimated volumes of waste to be generated.
- (ii) To identify any potential environmental impacts from the generation of waste at the site.
- (iii) To recommend appropriate waste handling and disposal measures / routings in accordance with the current legislative and administrative requirements; and
- (iv) To categorize waste material where practicable (inert material / waste fractions) for disposal considerations i.e., public filling areas / landfill.

3.2 Solid Waste Management

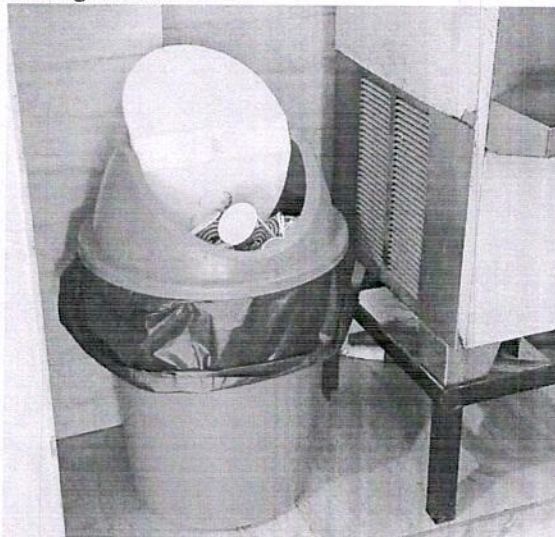
To reduce waste at institute, students and staff are educated on proper waste management practice through lectures, advertisement on notice boards, displaying slogan boards in the campus. Waste is collected daily from various sources and is separated as dry and wet waste.

3.3 Campus solid waste management program

The main objectives of SWM are the maintenance of clean and hygienic conditions and reduction in the quantity of solid waste (SW), which is disposed of in the sanitary landfill facility (SLF) of the area after recovery of material and energy from it. Student participation in waste management will play very important role as they will also spread awareness programs along with their duty towards cleanliness.

3.4 Producing less wastes

Students can utilize their belongings like paper, pencils and pens to the maximum and produce less amounts of wastes. Keeping classrooms and households clean: The students can keep their classrooms and houses clean by not littering things here and there. Methods of disposal of solid waste management.



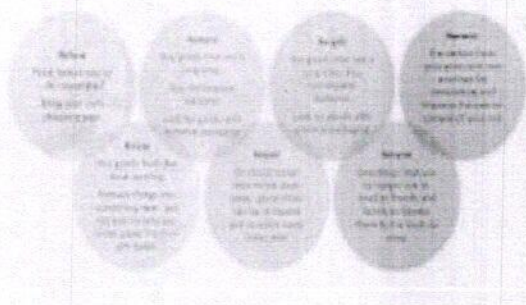
Dust bins were placed at Locations to collect various waste



3.5 Here are the methods of solid waste disposal and management

- Solid Waste Open Burning.
- Sea dumping process.
- Solid wastes sanitary landfills.
- Incineration method.
- Composting process.
- Disposal by Ploughing into the fields.
- Disposal by hog feeding.
- Salvaging procedure.
- Benefits of waste management
- Reducing waste will not only protect the environment but will also save on costs or reduce expenses for disposal. In the same way, recycling and/or reusing the waste that is produced benefits the environment by lessening the need to extract resources and lowers the potential for contamination.

The 7 principles of waste management-



3.6 The 7.R's of Recycling

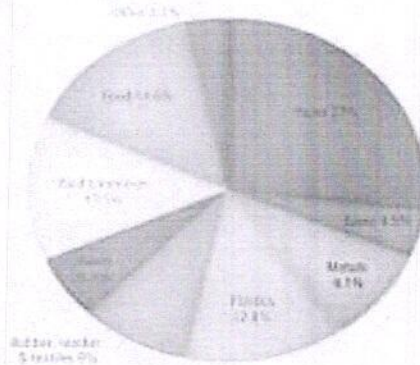
- Recycle.
- Refuse.
- Reduce.
- Reuse.
- Repair.
- Re-gift.
- Recover.

3.7 Municipal Solid Waste

Top 3 items in municipal solid waste in 2018, about 146.1 million tons of MSW were land filled. Food was the largest component at about 24 percent. Plastics accounted for over 18 percent, paper and paperboard made up about 2 percent, and rubber, leather and textiles comprised over 11 percent. Other materials accounted for less than 10 percent each.

Solid Waste Management may be defined as the discipline associated with the control of generation, collection, storage, transfer and transport, processing, and disposal of solid wastes in a manner that is in accord with the best principles of public health, economics, engineering, conservation, aesthetics and other.

The major sources of municipal solid waste



Municipal Solid Waste (MSW)—more commonly known as trash or garbage—consists of everyday items we use and then throw away, such as product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspapers, appliances, paint, and batteries. This comes from our homes, schools, hospitals, and businesses.

3.8 Plastic Waste

India has banned manufacture, import, stocking, distribution, sale and use of identified single use plastic items, which have low utility and high littering potential, across the country from July 1, 2022.

Recently, the Ministry of Environment, Forest, and Climate Change announced the Plastic Waste Management (Amendment) Rules, 2022, which notified the instructions on Extended Producer Responsibility (EPR) for plastic packaging.

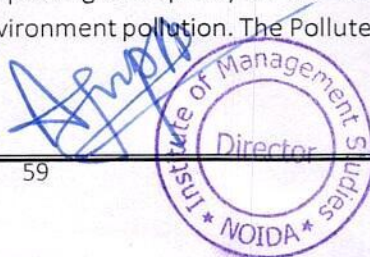
3.8.1 Centralized Online Portal:

The government has also called for establishing a centralized online portal by Central Pollution Control Board (CPCB) for the registration as well as filing of annual returns by producers, importers and brand-owners, plastic waste processors of plastic packaging waste by 31st March 2022.

It would act as the single point data repository with respect to orders and guidelines related to implementation of EPR for plastic packaging under Plastic Waste Management Rule, 2016.

3.8.2 Environmental Compensation:

Environmental compensation will be levied based upon polluter pays principle, with respect to non-fulfillment of EPR targets by producers, importers, and brand owners, for the purpose of protecting and improving the quality of the environment and preventing, controlling, and abating environment pollution. The Polluter Pays Principle



imposes liability on a person who pollutes the environment to compensate for the damage caused and return the environment to its original state regardless of the intent.

3.8.3 Committee to Recommend Measures

A committee constituted by the CPCB under the chairmanship of CPCB chairman will recommend measures to the environment ministry for effective implementation of EPR, including amendments to Extended Producer Responsibility (EPR) guidelines.

3.9 Construction & Demolition waste

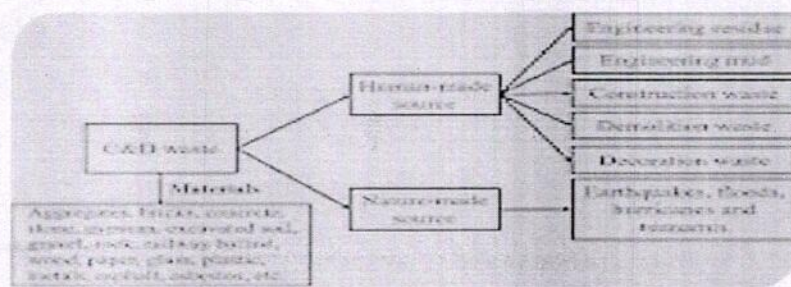
The Bureau of Indian Standards has allowed the use of concrete made from recycled material and processed C&D waste. The Construction and Demolition Waste Rules and Regulations, 2016 have mandated reuse of recycled material. Even the Swachh Bharat Mission has recognized the need for C&D waste management.

3.9.1 Construction and demolition waste management

Construction and demolition waste is generated whenever any construction/demolition activity takes place, such as, building roads, bridges, flyover, subway, remodeling etc. It consists mostly of inert and non-biodegradable material such as concrete, plaster, metal, wood, plastics etc.

C&D waste includes bricks, tiles, stone, soil, rubble, plaster, drywall or gypsum board, wood, plumbing fixtures, non-hazardous insulating material, plastics, wallpaper, glass, metal (e.g., steel, aluminum), asphalt, etc.

3.9.2 Recycle the Construction and Demolition waste



near the worksites also reduces the need for truck transportation resulting in lower logistics costs. the impact of construction and demolition waste on the environment.

The environmental impacts caused by C&D waste mainly include land space consumption, landfill depletion, energy and non-energy resource consumption, resource depletion, air pollution, noise pollution, water pollution, etc. (Akanbi et al., 2018).

3.10 SOLID WASTE AUDIT

Solid waste is the unwanted or useless solid material generated from human activities in a residential, industrial, or commercial area. Solid waste management reduces or eliminates the adverse impact on the environment and human health. A number of processes are involved in efficiently managing waste for an organization. It is necessary to manage the solid waste properly to reduce the load on the waste management system. Solid waste generation and its management is a burning issue in current days. The rate of generation of solid waste is very high and yet we do not have adequate technology to manage the generated waste. Unscientific handling of solid waste can create threats to public health and environmental safety issues.

Thus, it is necessary to manage solid waste properly to reduce the load on the waste management system. The purpose of this audit is to find out the quantity, volume, type, and current management practice of solid waste generation in the IMS College, Noida campus. This report will help for further solid waste management and to go for green campus development.

3.10.1 Generation of solid waste in IMS College, Noida

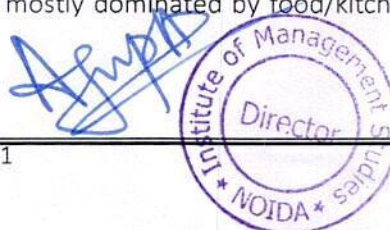
IMS College, Noida solid waste data is collected from all the building areas and the same is directly handed over to the Municipalities' Bin for further segregation and recycling purposes. There are different types of waste are recorded such as paper waste, plastic waste, construction waste, glass waste, etc. The daily rate of waste generation has been increasing in recent time reaching up to an estimated amount of about 12 Kg per day (tpd) during peak academic sessions and the minimum amount generated during the lean period is about 3 kg per day (tpd).

The wastes generated in the campus include (i) kitchen wastes, (ii) wastes from construction sites, (iii) liquid waste (residential and eateries), (iv) sewage and sludge, (v) Plastic wastes, (vi) cans and bottles; (vii) Unused tools and machinery including battery, (viii) papers including packaging materials (ix) electronics waste (x) garden leaves and (xi) sweeping litters, etc.

Proper segregation of waste can fetch more revenue to the College.

3.10.2 Status of solid waste generation in IMS College, Noida

The College is committed to ensuring that all forms of wastes generated are handled based on the RRRR (Reduce, Reuse, Recycle, Recover) principles following appropriate source segregation protocols including safe disposal of bio, medical and hazardous wastes. There are studies from time to time to estimate the amount and nature of wastes, particularly solid waste which indicates the increasing trend of the volume. A preliminary survey reveals the domination of biodegradable components (volume basis) over the non-biodegradable counterparts on the campus. The students' hostels share the highest amount of solid waste mostly dominated by food/kitchen wastes



(substantial amount of papers, plastics, metals are also seen with waste also generated in hostels) followed by residential areas, eateries including shopping complex and offices including academic buildings, construction sites (occasionally), open areas including gardens and roads.

3.11 E-Waste

3.11.1 Importance of e-waste management

It's critical to keep electronic waste out of landfill the EPA has stated that e-waste is dangerous when improperly disposed of. Electronic devices are composed of toxic substances and heavy metals. Materials such as chromium, cadmium, mercury, and lead can leach into the soil contaminating the air and waterways.

3.11.2 Five Reasons Why E-Waste Recycling is Important

Everyone has one. That box, drawer or shopping bag in a closet filled with old cell phones, obsolete chargers, broken tablets, and defunct MP3 players. It's our personal pile of electronic waste. According to government agencies, these piles are getting bigger, forcing us to consider why e-waste recycling is important.

Recycling electronic waste (e-waste, sometimes called e-scrap has become an increasingly important environmental issue as the useful life of electronic devices becomes shorter and shorter and the list of electronic gadgets we use becomes longer and longer. E-waste recycling benefits are numerous and the need to address these items in the solid waste stream is becoming more urgent.

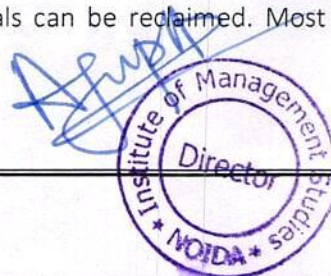
There are many factors to consider when evaluating electronics recycling, but here are the most significant reasons why e-waste recycling is important.

3.11.3 It's critical to keep electronic waste out of landfills

The EPA has stated that e-waste is dangerous when improperly disposed of. Electronic devices are composed of toxic substances and heavy metals. Materials such as chromium, cadmium, mercury, and lead can leach into the soil contaminating the air and waterways. EPA estimates there are about 60 million tons of e-waste per year globally. Recycling this material will save landfill space. For these reasons, there are numerous state laws that now ban e-waste in landfills.

3.11.4 Electronic products

These are valuable materials such as pr These are valuable materials such as precious metals like gold, silver, and platinum along with copper, aluminum, plastic and glass. Through the recycling process, these materials can be reclaimed. Most electronic



devices are nearly 100 percent recyclable. It would be poor stewardship to landfill these materials.

3.11.5 Reclaiming valuable materials

Reclaiming valuable materials from the recycling process means there will be decreased demand for new raw materials. This will help conserve important natural resources. According to the EPA, one metric ton of circuit boards contains 800 times the amount of gold mined from one metric ton of ore.

3.11.6 Using recycled material

Using recycled material will also help reduce greenhouse gas emissions produced when manufacturing or processing new products known as "virgin material." The more recycled material is available, the lower the demand for virgin material.

3.11.7 Discarded electronic devices

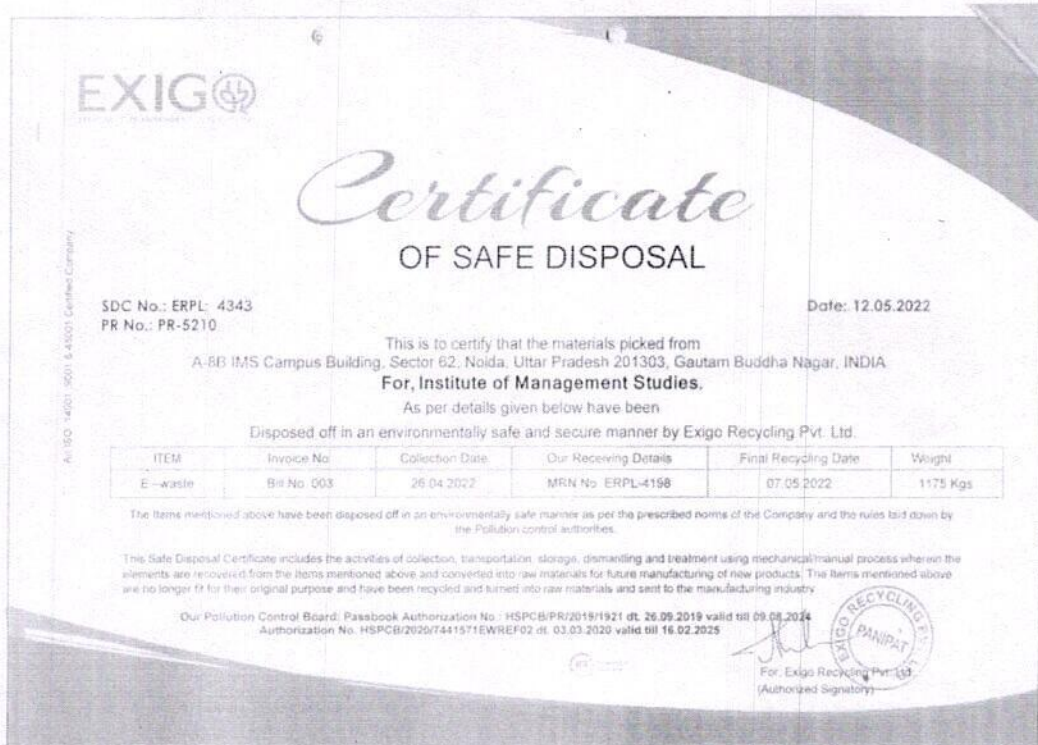
Discarded electronic devices can also be kept out of the landfill if they are refurbished, reused, and donated to a worthy cause. A quick Google search will provide a list of organizations in most areas that rebuild old electronics and provide them to those who otherwise would go without. "Reuse" is an important component of keeping material out of the waste stream.

IMS College, Noida is planning to segregate its E - Waste for further disposal to recyclers. For this they have already initiated the process. Also, in future they have agreed to file E-Waste returns also.



E-Waste Nearly to dispose.

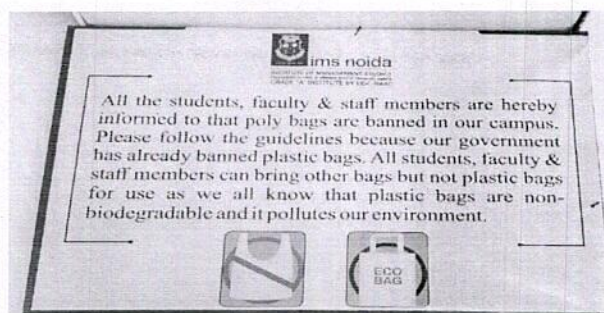
Arup
Institute of Management Studies
Director
NOIDA



Certificate of disposal

3.12 Single use Plastic restriction in campus Area

From 1st July 2022, single use plastic is going to be banned all over India. It is expected from the College that posters and handbills to be pasted around the campus and those who find throwing of single use plastic in campus area to be fined. Student groups are encouraged to take active participation and watch and educate all that not to throw such plastic in the campus area. This can be achieved through awareness and participation only. It is recommended to put slogans for NO PLASTIC ZONE or such different types of slogans. A competition among the students shall be conducted to give different suggestions for Slogans. The best selected Slogans to be suitably rewarded or certificate to be issued to that student. Plastics are a good source of fuel also.



Single use Plastic restriction in IMS, Noida



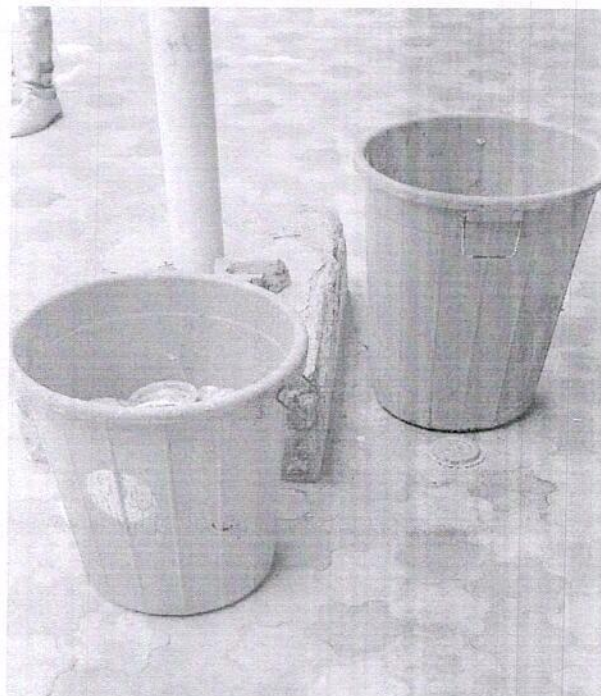
3.13 Waste Bins and Controlled Waste Disposal

In United States, not abiding by the regulations and laws will lead to college failing an inspection when the EPA, OSHA, or RCRA perform a routine examination of campus facilities. If an inspection fails, not only will it be costly, but these inspections are disruptive and can leave the College with a negative reputation.

Any waste suitable for local garbage services, other than glass and paper is considered controlled waste. This waste includes your dirty paper, rubber, plastic, and wood and should be placed in waste bins. Waste bins should be available in all labs and collected daily through your regular cleaning services.

Each of the labs must have a container for specific wastes that are not allowed to go with normal waste bins. In one of these special containers, should have it labeled to hold all broken lab glassware, sharp objects such as glass or metals, fine powders (which should first be placed into a glass container), dirty sample tubes, and any other contaminated chemicals that are not needles or syringes.

The lab-controlled waste containers are required to be emptied on a regular basis and should never be allowed to overflow. It should never be allowed to place any glass, fine powder, or sharp metal into a standard lab waste bin. Before placing bottles into the waste container, remove their tops, and make sure there is no detectable smell of chemicals coming from the bottles.



Dustbins install at various places

4.0 BIODIVERSITY AUDIT

The Biodiversity Audit Approach is an innovative, landscape-scale and evidence-based approach to delivery of biodiversity. It provides a working example of the implementation of an integrated approach to biodiversity delivery in a region. A key element has been the development of an evidence-based approach to understanding the requirements of priority species and providing guidelines for their conservation. Ecological requirements of priority species for conservation have been collated, and synthesized, integrating across numerous individual priority species to produce management guidance for multi-species assemblages. The approach: Collates and examines available evidence to understand what species are present. Objectively defines the suite of conservation priority species. Assess the recent or status of priority species. A key objective of the approach is to provide land managers and conservation advisers with guidance on how to enhance and sustain the important biodiversity. Effective management is best achieved by providing prescriptions based on sound evidence. The novel approach taken is to identify multi-species assemblages and associated flagship invertebrate and plant species, requiring similar ecological processes and conditions ('guilds'). This has the aim of integrating prescriptions for multiple species into habitat-based approaches, but through an evidence-based approach rooted in an understanding of the requirements of individual species.

This includes the plants, greenery, and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced, and reviewed using various environmental awareness programs.

4.1 BIODIVERSITY

To keep the greenery on the campus, the college regularly maintains the gardens which are looked after by concerned staff under the guidance of higher authorities of the college. Activities organized to create greenery and its conservation at the college campus is as follows-

1. Plantation of diversified species, Uses of medicinal plants, Identification of plants species.
2. Awareness of carbon consumption and carbon footprint program.

To create a green cover, Eco-friendly atmosphere, and pure oxygen at the college campus, a plantation program is organized every year with active participation from the college community and visitors. A committee has been formed as the Campus Horticulture Committee to keep the greeneries in the college campus. All gardens are regularly maintained and looked after by the Horticulture Section under the guidance of committee members. Various departmental activities are being carried out every



year such as:-

1. Plantations and other Landscaping Activities
2. Maintenance of Gardens and Landscape
3. Maintenance of Plantations

The horticultural activities for landscaping and beautification of IMS College, Noida are headed by a full-fledged Director who has his own team. There were transformation and redeemed of certain natural vegetation patches for requisite infrastructure development to facilitate the emerging needs for the growth of the college. However, spaces for academic, administrative and recreational areas are delineated in harmony with the landscape to ensure an eco-friendly campus. The Horticulture section headed by Director, Horticulture and gardening unit is posted in the college is looking after althea plantation and other landscaping activities within the College campus under the guidance of a by Director, Horticulture, and gardening unit. By Director, Horticulture and gardening unit has under him a team of dedicated staff who are only dedicated to horticulture and Gardening work & develops strategies for smooth execution of plantation, maintenance and overall protection of the landscape. Therefore, the greenery of a large area in the campus is well maintained besides keeping remnants of the natural vegetation patches undisturbed. There are block plantations, plantations along the roads side, garden space of departmental building premises, and along the residential compounds, while several tree species regenerated naturally and there are plants that cover the whole natural and scrapes. Several trees and plants are carefully selected for the plantation to provide shelter for birds and to provide a shaded walkway. Massive plantations and different landscaping beautification activities have already been carried out in different parts of the college campus.

4.2 PLANTATIONS

IMS college is in continuous process of planting trees of importance, medicinal values & fruit bearing. IMS College, Noida on various national and international events/occasions with active participation from college communities and guests. This program helps in encouraging an eco-friendly environment that provides pure oxygen within the institute and awareness among villagers. The plantation program includes various types of indigenous species of ornamental and medicinal wild plant species. The plants have medicinal value, which faculty members of the Horticulture department, Botany department with the help of NSS students to identify with scientific names and give information about medicinal uses of the plants.

MAINTENANCE OF PLANTATIONS

Apart from the maintenance of gardens, all previously planted trees (like roadside and other plantations) in different locations of the college campus are regularly nurtured by cleaning, fertilization, watering, etc.





HOUSE PLANTS

House plants do not just look good – they can make us feel good, too. Studies have shown that house plants-



1. Boost our mood, productivity, concentration, and creativity.
2. Reduce our stress, fatigue, sore throats, and colds.
3. Help clean indoor air by absorbing toxins, increasing humidity & producing oxygen.
4. Add life to sterile space, give privacy and reduce noise levels.

Considering the different benefits of houseplants, currently, about 950 House plant pots are replaced in the interior space of different administrative offices and Academic buildings, Guest House, Library, Auditorium and other amenity centres for beautification, greenery, and purifying the air. Essential maintenance works of these houseplants are carried out regularly under the supervision of the Horticulture department, IMS College, Noida.

Campus Involvement

For sustainable use of resources and for the mission of "GO-GREEN" it is necessary that the students, faculty, and administration welcome it. IMS College is an environment that invites opportunities to better its community through campus organizations. The green initiative started on the campus many years ago. The college students are actively participating and solely concerned with the environment.

These students, under the guidance of faculties strive to create an environmentally friendly campus. Their purpose is to create awareness and eventually act on that awareness. college is also actively conducting environmental awareness programs on campus regularly.

Environmental Conservation Program

College is very active in the practical education of the students regarding environmental conservation. The college has arranged visits to their faculties to the Wildlife Institute of India (WII), Botanical Garden, Sanctuaries, Zoological Park sacred groves to educate their students. The college also took their students to different National Parks to educate the students about in situ Conservation of Wildlife.

4.3 Protection of biodiversity of Flora Fauna associated with college

INTRODUCTION

Biodiversity is one measure of the health of biological systems. Life on earth today consists of many millions of distinct biological species. Biodiversity is not consistent across the earth. It is consistently rich in the tropics, and it is less rich in Polar Regions where conditions support much less biomass. A complex relationship exists among the different diversity levels. Identifying one level of diversity in a group of organisms does not necessarily indicate its relationship with other types of diversities. Rapid environmental changes typically cause extinctions. Most species that have existed on earth are now extinct. The period since the emergence of humans has displayed an ongoing reduction in biodiversity. Named the Holocene extinction, the reduction is caused primarily by human impacts, particularly the destruction of plants and animals habitats.

Need for biodiversity conservation

Conservation is the protection, preservation, management, or restoration of wildlife and natural resources such as forests and water. Through the conservation of biodiversity, the survival of many species and habitats which are threatened due to human activities can be ensured. Other reasons for conserving biodiversity include securing valuable Natural Resources for future generations and protecting the wellbeing of ecosystem functions. Plant genetic resources are the product of natural evolution and human intervention. In-situ biodiversity conservation includes the conservation of habitats, species, and ecosystems where they naturally occur. The conservation of elements of biodiversity out of the context of their natural habitats is referred to as ex-situ biodiversity conservation.

4.4 Fauna Survey

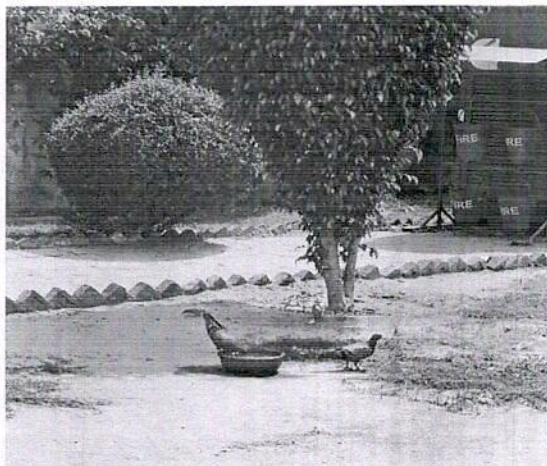
The term fauna represents all the animal species found in a particular region at a particular time. These are the naturally occurring animal species of the area. It can be measured by taking several quadrats and recording presence/absence in each, or in each of the subdivisions of the quadrat. Fauna use many different parts of the



environment. Some are ground-dwellers, others arboreal and some live underground or in rock crevices.

Pilot fauna survey

Animal species present around each of the building locations were assessed. Places such as in and around the college vicinity, in the soil and on the vegetation around the college were checked and noted.



Fauna at IMS, Noida

Questionnaire based fauna survey:

An assessment of animal species commonly cited around the study college area by pupils and workers of the college was also conducted through a structured interview schedule (questionnaire). The respondents were allowed to express the names of the animal species in their local language Hindi.

Sr. No.	Scientific name	Common name
1	कबूतर	कबूतर
2	चिड़िया	काली पीली नीली
3	बेया चिड़िया	बेया चिड़िया
4	चील	चील
5	उल्लू	उल्लू
6	तोता	तोता
7	कोयल	कोयल
8	चिड़िया	मेटेली
9	गलगलिया चिड़िया	गलगलिया चिड़िया
10	कौवा	कौवा
11	तटहरी	तटहरी

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 Institute of Management Studies
 Director
 NOIDA

The college must be appreciated for maintaining such a high quality of flora & fauna as seen above.

RESULT

Fauna Survey Pilot fauna survey

A total of eleven animal species were cited in the college area sampled. Fauna species observed in the study area were good representatives of the animal kingdom as they cut across birds.

Fauna species were noted to be common to each of the study areas. Among the fauna species common to the college study area, termites, ants, earthworms, lizards, spiders and springtails were observed to be more in abundance.

4.5 Flora survey

Direct observation of plants growing freely around the college was done to ensure a proper and more accurate plant survey. The collected plant samples were identified in the herbarium of the Department of Botany.

We have identified different trees from different genera and families and ornamental plants and have studied their properties and uses. There are many trees and ornamental plants which are rare on the college campus. Such plants are planted in different parts of campus and monitored for proper growth. Plants which are having frequency less than 0.1% were chosen for conservation. These are some plants chosen for vegetative propagation that includes, *Pisonia alba*, *Leucaena leucocephala*, *The spesia populnea*, *Aloevera*.

Plantation year wise			
Year	No. of Plantation	No. of trees Survived	Percentage
2017	583	408	69.98
2018	607	467	76.94
2019	860	601	69.88
2020	0	0	0.00
2021	893	551	61.70
Total	2943	2027	



Plantation Details

Sr. No.	Species Name	Common Name	No. of Plants
1	बोटल पाम	पाम	70
2	फाइकश	बीजेना	1368
3	कजरीना	कजरीना	3
4	एरोकोरिया	एरोकोरिया	6
5	लावेण्ड्रा	लावेण्ड्रा	2
6	जेटरूपा	जेटरूपा	35
7	हरसिंगार	हरसिंगार	1
8	चाँदनी	चाँदनी	18
9	चम्पा	चम्पा	25
10	मोगरा	मोगरा	11
11	मौरैया	मौरैया	43
12	खजूर	खजूर	2
13	नीम	नीम	5
14	कनेल	कनेल	2
15	इलस्टोनिया	इलस्टोनिया	2
16	गोल्ड मोहर	गोल्ड मोहर	2
17	पीचोरिया	पाम	1
18	अशोक पांडुल	अशोक देसी	109
19	ललटेना	ललटेना	4
20	गुलाब	इंगलिश/देसी	25
21	मोरपंखी	मोरपंखी	5
22	स्पायरा घास	स्पायरा घास	7
23	लौलीना	लौलीना	1
24	हलोवेरा	केटस	21
25	हेविस्कस	हेविस्कस	98
26	चम्पा इंगलिनी	चम्पा इंगलिनी	28
27	मनी प्लांट	मनी प्लांट	25
28	सनमोनिउम	सनमोनिउम	11
29	एगलोमा	एगलोमा	22
30	क्रोटन	क्रोटन	1
31	डेफ्रिनेबिछिया	डेफ्रिनेबिछिया	2
32	संगांपेडिया	संगांपेडिया	10
33	बेगुनबेला	बेगुनबेला	22
34	कड़ीपत्ता	कड़ीपत्ता	1
35	अड्डेउम	अड्डेउम	1
36	डूसेना	डूसेना	8
37	क्लोरोफेटम	क्लोरोफेटम	9
38	पत्थरचट्टा	पत्थरचट्टा	8
39	लालशा	लालशा	9

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Sr. No.	Species Name	Common Name	No. of Plants
40	बास	बाम्बू	4
Total			2027

The highest diversity of plants was observed on the college campus with 40 plant species.

No. of Plantation is good considering the area of campus, but survival rate is low. College authority must plan for making a committee to consider type of plants (Mainly fruit bearing having medicinal values, like Sehan, Papaya, Jamun etc.) & also follow up of their survival must be ensured.

As per the report received from the college that in 2021 total trees planted is 893 and survival plants is 551 and survival rate is 67.10% whereas in 2020, no plants have been planted due to covid19 but in 2019 total trees planted is 860 and survival plants is 601 and survival rate is 69.88%. Progress is really commendable for the college within last five years. Although there is still lot of scope to increase the survival rate.

Discussion

The major component of an ecosystem is plants. They are major modifiers of climate and providers of community structures, and they are pathway through which energy enters the ecosystem. The plant forms a complex interaction between the biotic and abiotic entities of the environment by making use of the biotic entities as food to produce food in form of biomass for the animal communities. High diversity of animal species within the college vicinity as recorded in this study could therefore be connected to the observed high diversity of plant species.

This study has shown that the college environments have rich and abundant flora and fauna populations which could be regarded as a biotic community consisting of the populations of different organisms interacting together. It also revealed that the activities in the study area may not be completely detrimental to the existence of the organisms. Thus, if well maintained, college activities are not entirely unfriendly to the biotic community.

Although, it is not a common practice to base ecological research on questionnaire surveys, this study has revealed that the opinion of people who have been used to a particular area over a long period of time on the fauna species usually encountered in such areas should not be discarded. However, there is the need for a field survey to back up verbal responses.




5.0 Fire Fighting Audit

Every educational institution must have a minimum of two staircases, two fire extinguishers on each floor and manually operated fire alarm call points on each floor. Every classroom that can seat more than 45 students must have two exits and fire drills should be conducted once in six months.

Fire safety norms in India

The height shall be a fire tower and in such a case width of the same shall not be less than the width of the main staircase. No combustible material shall be allowed in the fire tower. a) The use of spiral staircase shall be limited to low occupant load and to a building height 9 m.

Measures to assess fire safety

Fire safety is a fundamental consideration in building design and management, but unfortunately, firewalls that are often overlooked are today more likely to be associated with IT security than with physical safety. Assess fire safety measures in your built environment with the help of this checklist.

Provide adequate means of escape

The first rule of fire management requires sufficient escape routes out of the building, in accordance with its scale and occupancy. The number, size and location of exits are specified in the National Building Code (NBC) 2005, a detailed set of guidelines for constructing, maintaining and operating buildings of all types. Office occupiers must additionally ensure that staircases, stairwells and corridors are well-maintained, ventilated and free of obstacles to be effective in an emergency.

Outline clear pathways to exit doors

Getting to exits is as important as providing enough exits. NBC guidelines specify the maximum distance a person must travel to access a fire exit, and the importance of photo-luminescent signage to enable evacuation at night. Refuge areas such as terraces are critical for high-rises where people can safely congregate, when asked to leave the building in phases.

Install smoke detection systems

The first few minutes of a fire are crucial in containing it. Automatic fire alarm systems such as smoke and heat detectors are mandatory elements in international building codes, and particularly useful in spotting fires during times when occupancy in the building is low.

Maintain smoke suppression systems

Fire extinguishers are only useful if they work, so check them regularly. High-rise buildings, which are harder to access and evacuate, should consider installing automatic sprinkler systems. The National Fire Protection Association (NFPA), a US-based non-profit body, estimates that automatic suppression systems lower the cost



of damage by 60%.

Conduct Regular Fire Drills

Preventing panic in an emergency is as important as staying away from flames and fumes. Regular fire drills familiarize people with emergency evacuation methods at little cost. Nominate a fire safety officer in every building to ensure that this becomes standard operating procedure.

Use flame-retardant materials in interiors

Materials used in the interior can save or endanger lives. The combination of wood, paper and textiles makes workstations highly combustible. Fabrics can be made flame-retardant, however, so that they self-extinguish when lit. An increasing number of companies, especially multinationals, request such fabrics despite their price premium, according to data from Indian office furniture manufacturer BP Ergo. Stringent fire regulations abroad make it necessary for US furniture makers such as Herman Miller to provide only fire-tested fabrics. Doors are also assigned a fire-resistance rating, measuring how long they can remain resistant to excessive temperatures and flames without collapsing.

Make HEIs accessible to firefighters

Grilled windows are a widespread urban phenomenon. Occupants of offices in residential buildings with few exits should be wary of locking themselves into confined spaces.

Keep the building plans handy

It is imperative to make multiple copies of your building plan available to guide rescue agencies, especially during an emergency.

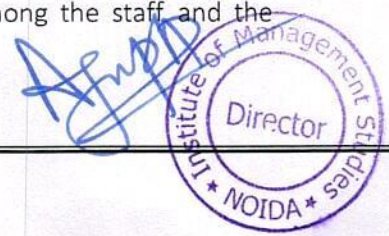
Ask the local fire brigade to assess safety

Fire departments, for a nominal fee, will independently assess your building's level of fire safety. Storage of hazardous or inflammable materials, old and unstable structures, inadequate escape routes or electricity overloads are potential death traps that are best assessed by professionals.

Comply with National Building Code

"Green buildings" are in vogue, but safe structures are sadly not. The code endeavors to avoid requirements that might involve unreasonable hardships or unnecessary interference with normal use and occupancy of buildings, insist upon compliance with minimum standards for fire safety necessary in public interest.

At IMS, Noida Campus different locations fire safety devices were checked and it was found that proper refilling date, next filling date were mentioned on the device. Staff nearby were asked about the operation, and it was found they were acquainted with the operation of the firefighting devices. It is recommended to hold a fire safety drill once a year so that proper awareness should be there among the staff and the



students.

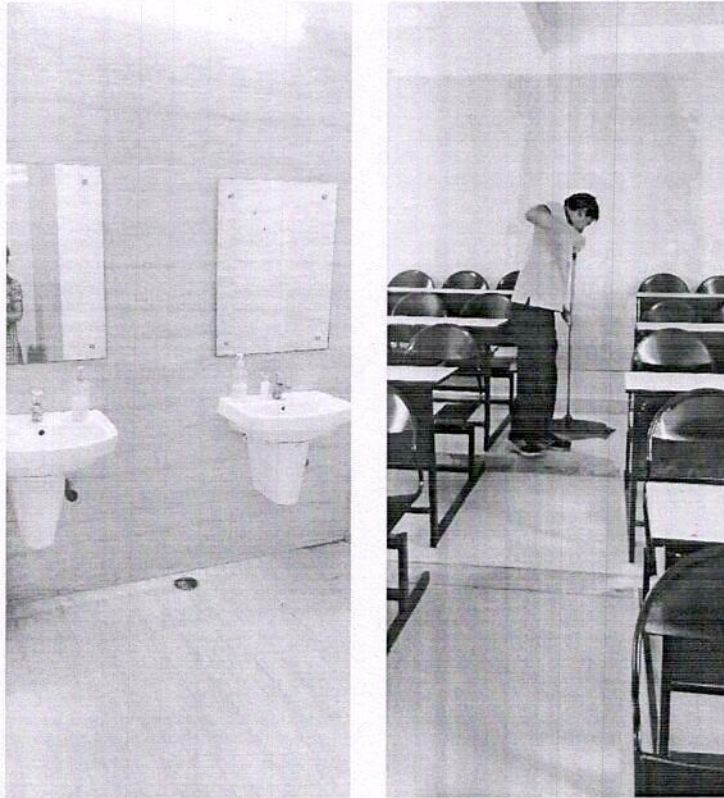


Provision for Fire Safety at IMS, Noida

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6.0 Sanitation & Hygiene

College administrations are very conscious about Hygiene & Sanitation. Wherever the toilets were inspected, they were found neat and clean. Even the cafeteria was well sanitized with food stuff secured from dust & pollution. Two napkin incinerators were also provided in the campus areas for females. This type of facility is very rarely found in college campus. Such provision shows care of the college towards females. Our Loving Prime Minister also during address on 15th August 2022 speech appealed for respect toward women. This is in line of our loving PM.



Maintaining cleanness at Campus

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Energy Audit

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7.0 ENERGY AUDIT

Energy is one of the major inputs for the economic development of any country. The fundamental goal of energy management is to produce goods and provide services with the least cost and least environmental effect. Also, it can be said as “the strategy of adjusting and optimizing energy, using system and procedure so as to reduce energy requirements per unit of output while holding constant or reducing total costs producing the output from these systems”. The energy audit is key to a systematic approach for decision-making in energy management. It attempts to balance the total energy inputs with its use and serves to identify all the energy streams in a facility. The present policy of Government of India is to achieve Net Zero. All out efforts have been planned. IMS College, Noida, has done a lot towards green renewable energy. Mostly the campus is harvesting Solar energy. As discussed with the eminent professors, it was informed that sooner they are planning to harvest energy from wind energy also. IMS College, Noida is committed to achieve the goal of becoming net zero policy.

7.1 Resource of Energy Audit

Energy resources utilized by all the departments, support services, and the administrative buildings of IMS College, Noida, include Electricity, Solar Roof Top Systems, and Diesel Generators installed on the campus.

7.2 Energy Audit Objective

The main energy audit objective to reduce power consumption and save revenue of college. The objective of audit to maximizing saving energy and using best technology to save energy.

Primary

- The first objective is to acquire, analyze data and find the necessary consumption pattern of the whole campus area.
- The second objective will be to calculate the wastage of energy pattern based on the results of the first objective.
- The final objective is to find and implement solutions that are acceptable and feasible in the most economical way.

Secondary

This would be the first exposure of college to this field hence experience gain would be vital (College themselves be able to identify the energy distribution). This project will follow many follow up projects and hence helps to gain technical and management exposure required for future energy projects. This will surely help create vital reduction hence will develop in overall achievement.



7.3 Source of Energy

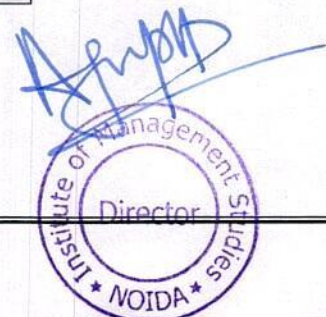
College takes supply of electricity from UPPCL.

7.4 Indirect Benefits of Energy Audit

Every time the Energy Audit is carried out it, there shall be analysis of Energy Conservation is an important function. Energy Auditors sharing their experience and knowledge with the Plant Personnel helps in fueling the innovative ideas for further action of reduction in Specific Power consumption (SPC). Any loose connections or heating of cables come to timely vision. For a next unbiased vision, a few points for Energy Conservation may be visible each time when perform the audit and this would help in achieving further saving. Inform any irregularities in Energy meter HT connections for rectification.

Till Last Audit Consumption was as below:

Sr. No.	Connected Load	Load in kW
1	Indoor Lighting Load	32972.54
2	Outdoor Lighting Load	18221.76
3	Ceiling Fan, Exhaust Fan, Wall Fan Load	47305.73
4	Air Conditioning Load	238474.37
5	Pumping System	7471.94
6	Printer, PC, Water Cooler, Refrigerator & Other lab equipments	28663.16
Total		373109.50



7.5 The Audit conducted on 15th May 2022 showed following changes

Analysis of Energy data

Indoor Lightings:

Different type of indoor lighting fixture								
Sr. No.	Location	Fixtures Quantity	Wattage	Total wattage in kW	Annual Consumption	Changing with LED Bulbs of 20 watts (in kWh)	Annual Savings (in kWh)	Amount in Rs.
1.00	Management	35.00	20.00	700.00	1612.80	1612.80	0.00	0.00
		16.00	36.00	576.00	1327.10	737.28	589.82	8882.75
		19.00	36.00	684.00	1575.94	875.52	700.42	10548.26
		18.00	20.00	360.00	829.44	829.44	0.00	0.00
		45.00	20.00	900.00	2073.60	2073.60	0.00	0.00
		37.00	20.00	740.00	1704.96	1704.96	0.00	0.00
		18.00	20.00	360.00	829.44	829.44	0.00	0.00
2.00	BCA	23.00	20.00	460.00	1059.84	1059.84	0.00	0.00
		34.00	25.00	850.00	1958.40	1566.72	391.68	5898.70
		22.00	20.00	440.00	1013.76	1013.76	0.00	0.00
		33.00	25.00	825.00	1900.80	1520.64	380.16	5725.21
		54.00	20.00	1080.00	2488.32	2488.32	0.00	0.00
		56.00	20.00	1120.00	2580.48	2580.48	0.00	0.00
		8.00	12.00	96.00	221.18	221.18	0.00	0.00
3.00	Journalism & Mass Communication	43.00	20.00	860.00	1981.44	1981.44	0.00	0.00
		41.00	20.00	820.00	1889.28	1889.28	0.00	0.00
		42.00	20.00	840.00	1935.36	1935.36	0.00	0.00
		40.00	20.00	800.00	1843.20	1843.20	0.00	0.00
		45.00	20.00	900.00	2073.60	2073.60	0.00	0.00
4.00	Fine Arts	45.00	20.00	900.00	2073.60	2073.60	0.00	0.00
Total				14.31	32972.54	30910.46	2062.08	31054.92

Outdoor Lightings:

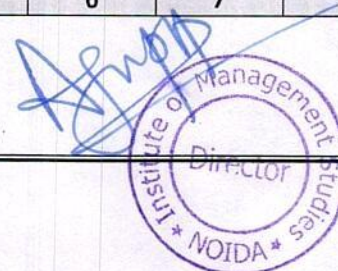
Different type of Out Door Lighting System										
Sr. No.	Location	Location of Fixture	Product Type	No. of Lighting Fixture	Wattage	Total wattage in kW	Annual Consumption (In kWh)	Changing with LED Bulbs of 50 watts (in kWh)	Annual Savings (in kWh)	Amount
1	Out Door Lighting System	Garden Area and Street Lights	LED FLOOD LIGHT	15	50	750	3240	3240	0	0



Different type of Out Door Lighting System										
Sr. No.	Location	Location of Fixture	Product Type	No. of Lighting Fixture	Wattage	Total wattage in kW	Annual Consumption (In kWh)	Changing with LED Bulbs of 50 watts (in kWh)	Annual Savings (in kWh)	Amount
2		corridors within college premises	LED FLOOD LIGHT	6	100	600	2592	1296	1296	19517.76
3			LED FLOOD LIGHT	8	200	1600	6912	1728	5184	78071.04
4			TUBE LIGHT	13	36	468	2021.76	2021.76	0	0
5			OTHER	2	400	800	3456	432	3024	45541.44
Total						4218	18221.76	8717.76	9504	143130.2

Fans:

The detail of the equipment is given in the below table: (Different type of Ceiling, Wall And Exhaust Fan System)								
Sr. No.	Location	Number of Fan	Wattage	Total Wattage	Annual Consumption (in kWh)	Changing with BLDC fans of 26 watts	Net Annual Power savings	Amount Saved in Rs
1	Management	28.00	70.00	1960.00	4515.84	1677.31	2838.53	42748.23
		29.00	70.00	2030.00	4677.12	1737.22	2939.90	44274.95
		27.00	70.00	1890.00	4354.56	1617.41	2737.15	41221.51
		24.00	70.00	1680.00	3870.72	1437.70	2433.02	36641.34
		8.00	40.00	320.00	737.28	479.23	258.05	3886.20
2	BCA	18.00	70.00	1260.00	2903.04	1078.27	1824.77	27481.01
		35.00	70.00	2450.00	5644.80	2096.64	3548.16	53435.29
		29.00	70.00	2030.00	4677.12	1737.22	2939.90	44274.95
		28.00	70.00	1960.00	4515.84	1677.31	2838.53	42748.23
		9.00	40.00	360.00	829.44	539.14	290.30	4371.98
3	Journalism & Mass Communication	34.00	26.00	884.00	2036.74	2036.74	0.00	0.00
		26.00	26.00	676.00	1557.50	1557.50	0.00	0.00
		25.00	26.00	650.00	1497.60	1497.60	0.00	0.00
		27.00	26.00	702.00	1617.41	1617.41	0.00	0.00
		12.00	40.00	480.00	1105.92	718.85	387.07	5829.30
4	Fine Arts	30.00	40.00	1200.00	2764.80	1797.12	967.68	14573.26
Total					47305.73	23302.6	24003.0	361486.2



Air Conditioning System:

The details of Different type Airconditioning System					
Sr. No.	Location	No. of AC	Power Consumption in		Annual Consumption
			Watt	Total (KW)	kWh
1	A BLOCK	13	46800	46.8	35942.4
2	B BLOCK	32	101760	101.76	78151.68
3	C BLOCK	15	52941	52.941	40658.688
4	D BLOCK	34	109013	109.013	83721.6
Total			310514	310.514	238474.37

Pumping System:

Sr. No.	Location	No. of pumps	Pump of Capacity (HP)	Electric Consumed (in kWh)	Annual Consumption in kWh
1	A+B Block	1	3	2.238	2801.98
2	C+D Block	1	2	1.492	1867.98
3	HOSTEL	1	3	2.238	2801.98
Annual Consumption					7471.94



Pumping Set at IMS, Noida

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Overall Analysis:

Sr. No.	Connected Load	Load in kW	Recommendations	Net Annual Savings in kW	Annual savings in Rs.
1	Indoor Lighting Load	32972.54	30910.464	2062.08	31054.9
2	Outdoor Lighting Load	18221.76	8717.76	9504.00	143130
3	Ceiling Fan, Exhaust Fan, Wall Fan Load	47305.73	23302.656	24003.07	361486
4	Air Conditioning Load	238474.37	238474.37	0.00	0
5	Pumping System	7471.94	7471.936	0.00	0
6	Printer, PC, Water Cooler, Refrigerator & Other lab equipments	28663.16	28663.164	0.00	0
Total		373109.50	337540.348	35569.15	535671

Assumption:

As per the future policy, IMS, Noida is committed to convert all CFL into LED and they are already in a mode to purchase all electrical appliances star rated in future purchase. Hence, forth all electrical appliances which are being purchased are all-star rated.

For Analysis of Energy audit of the last year audit we had made certain assumptions:

1. One month is of 30 days.
2. In one month, 24 days working and 6 leave for indoor fittings.
3. Fans, ACs Indoor lightings are included in indoor fittings.
4. On working days total 8 hours of working in which all lights, fans & ACs are on.
5. On 6 holidays half of the lights are on.




6. Outdoor lightings 12 hours daily (6 PM to 6AM) for 365 days.
7. Pumps for pumping down the water will work for 261 days in working days for 4 hours and 104 days for 2 hours in holidays in a year. Due to hostels and flats in the campus area and for irrigation purposes pump will run all seven days.
8. We have only analysed the data in relation to lights & fans.
9. Cost of per unit assumed Rs. 15.06.

7.6 Observation

Lighting system

Lighting is an essential service in all industries, College/University, Hospitals, Malls, etc. Innovation and continuous improvement in the field of lighting have given rise to tremendous energy-saving opportunities in this area. Lighting is an area which provides some major scope to achieve energy efficiency at the design stage, by incorporation of modern energy-efficient lamps, luminaries, and gears, apart from good operational practices.

Lamps

A lamp is equipment, which produces light. The most used lamps are Described briefly as follows:

Incandescent lamps

Incandescent lamps produce light by means of a filament heated to incandescence by the flow of electric current through it. The principal parts of an incandescent lamp, also known as GLS (General Lighting Service) lamp include the filament, the bulb, the filling, and the cap.

Reflector lamps

Reflector lamps are basically incandescent, provided with a high-quality internal mirror, which follows exactly the parabolic shape of the lamp. The reflector is resistant to corrosion, thus making the lamp maintenance free and output efficient.

Gas discharge lamps

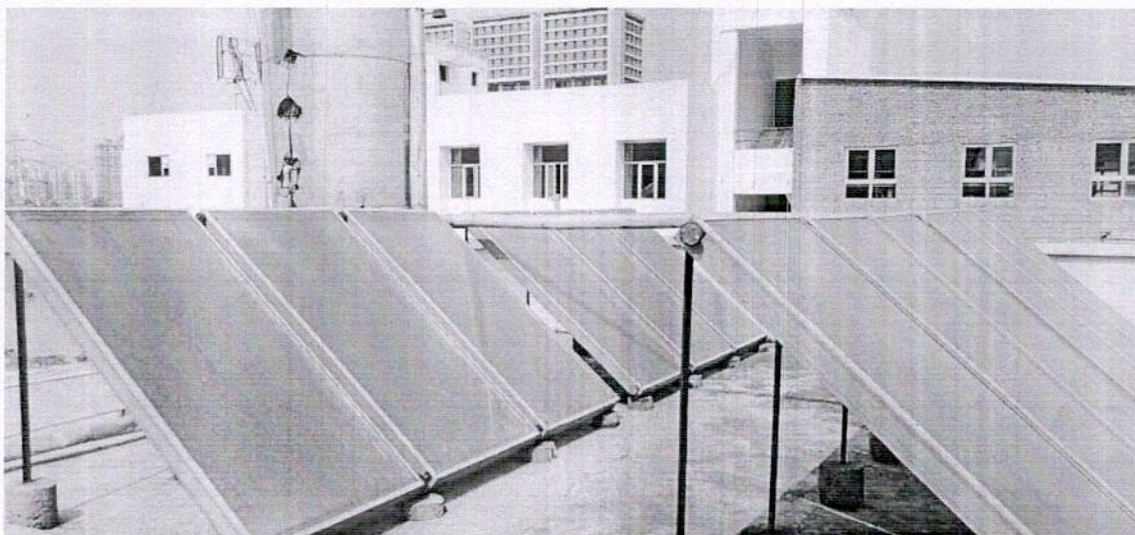
The light from a gas discharge lamp is produced by the excitation of gas contained in either a tubular or elliptical outer bulb. The most used discharge lamps are as follows:

1. Fluorescent tube lamps (FTL)
2. Compact Fluorescent Lamps (CFL)
3. Mercury Vapor Lamps
4. Sodium Vapor Lamps
5. Metal Halide Lamps



7.7 Energy Conservation and Renewable energy Renewable Energy

Girls Hostel of IMS College, Noida was checked. This department is generating 5kW of solar energy. A total load of is 25 kW solar energy is being generated by the college through solar plant installed on the roof top. It also has capacity to transfer to the grid as per need and necessity. Further the college is in process of converting wind energy into next source of renewable energy which will also cater further need of the department. Several other departments are going to provide roof top solar panels.



Solar Panel Installed at IMS, Noida

Renewable Energy (Solar) Analysis:

Annual Consumption = 373109.50 units (from 1 April 2021 to 31 March 2022)

Total Cost Paid = Rs. 56,19,029.07 (Rupees Fifty-six lacs ninety thousand twenty-nine) Approx.

Cost of 500 kW Solar Panels = Rs. 2 - 2.5 Crore (Approx.)

Area Occupied = 5000 – 6000 sq. m (Roof tops) Hence no other area is covered.

Considering no incentives given by Central Government and State Government (Although lots of incentive programs are there).

Pay Back Period = 3 Years Approximately (After that it will be free)

Now, if students from any institution are given assignments, related to solar PV with proper education under the guidance of some professor. This cost further reduces to 1.5 crores approximately. Hence Pay Back period will be 2 years & 3 months (approximately). Solar PV Panels come with warranty of 25 years.



Although the electricity price will increase in that period (next 22 years) but considering the same electricity till next 25 years minimum profit for next 22 years will be Rs. 14,74,00,000 (Fourteen Crores and seventy-four lacs only).

7.8 Energy Management Strategy

Energy Management should be seen as a continuous process. Strategies should be reviewed annually and revised as necessary. The key activities suggested have been outlined below:

College Corporate Approach

The starting point in energy management is to identify a strategic corporate approach to energy management. Clear accountability for energy usage needs to be established, appropriate financial and staffing resources must be allocated, and reporting procedures initiated. An energy management program requires commitment from the whole organization to be successful. A record of Energy consumption must be kept and monitored on regular basis, to optimize the Energy consumption. For this, various meters may have to be installed.

Designate an energy manager

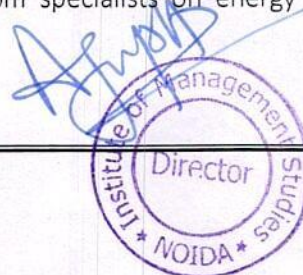
An Energy Manager must be identified, and time bound responsibility must be given to him in getting implemented the findings of the Energy Audit points, which the Plant Establishment has planned to implement.

Setup an energy monitoring and reporting system

Successful energy management requires the establishment of a system to collect/analyses and report the energy costs and consumption pattern. This will enable an overview of energy use and its related costs, as well as facilitating the identification of savings that might 'otherwise not be detected. The system needs to record both historical and ongoing energy use, as well as cost information from billing data, and capable of producing summary reports on a regular basis. This information will provide how trends can be analyzed and reviewed for corrective measures.

Implement a staff awareness and Training program

A key ingredient to the success of an energy management program is maintaining a high level of awareness among staff. This can be achieved in several ways, including formal training, newsletters, posters and publications. It is important to communicate program plans and case studies that demonstrate savings, and to report results at least at 12-month intervals. Staff may need training from specialists on energy saving



practices and equipment.

8.0 Recommendations

Based on the above audit report certain recommendations/ suggestions are given as below:

Water Quality & Quantity Monitoring

1. Water meters need to be installed at all submersibles to calculate the quantity of water. Also, near source of municipal water supply.
2. Chlorination of water to be done at regular interval & testing of chlorinated water shall be conducted.
3. Cleaning of water tanks at least once in year must be ensured.

Air Quality Monitoring

1. Air Quality monitoring system to be installed.
2. At certain locations, it shall be displayed publicly to be awareness of all.
3. From the above it is observed that although the CO₂ parameters are well within the limits but for an educational institution it is not within fair limit. It is recommended to kindly install Exhaust fans to reduce the CO₂ limits in rooms specially for canteens & Student gathering places.

Waste Management

1. It shall be ensured that Chemical waste being disposed through lab to be properly analysed before dispersal.
2. Promote plastic free Zone campus through posters/ banners.
3. E-Waste to be sent to SPCB approved recycler as soon as possible.
4. For dry & wet waste to be segregated in two different bins kept together. Dry waste can be used for filling & other purposes or disposed of. But the wet waste is good for making biogas or organic fertilizers for own use of college.

Energy

1. Several suggestions have been given in the sections. If recommendation is accepted, then college will save annual revenue of Rs. 5.35 lacs.
2. College is already purchasing star rated appliance.
3. College has done exemplary performance in reducing energy by installation of 20Watt LED Bulbs & below. There are still some bulbs to be changed/ replaced by lower wattage. For which the administration has told that they are already in process.



Renewable Energy

1. College has done a commendable work in last 1 year by producing renewable energy of 25kW.
2. A regular process shall further be continued.

Biodiversity

1. Rate of survival is very good. It needs to be watched.
2. Only planting tree is not important unless survival rate is high.
3. A team of faculty may be made to monitor & plan the types of trees.
4. Preference to be given to trees having medicinal values.
5. Certain fruit bearing trees like sehajan, papaya which are very good in all respects.
6. One or two water body shall be developed in the college campus area. This will attract different species like birds, insects & animals.

Fire Fighting Safety

1. Fire Fighting equipments to be checked periodically & refilled timely.

9.0 References

1. International Journal of preventive medicine research Potential Health Impacts of Hard Water PMID: 24049611, Int J Prev. Med. 2013 Aug; 4(8): 866–875.
2. Various newspaper cuttings
3. From EPA (Environment Protection Agency, USA) guidelines.
4. IS: 150200: 2012
5. Water (Prevention and Control of Pollution) Act, 1974 (25 of 1974)
6. Air (Prevention and Control of Pollution) Act, 1981 (21 of 1981).
7. Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008
8. The State Pollution Control Board, an annual return containing the details specified in Form 4 on or before the 30th day of June, of every year.





Certificate of Training

TNV hereby certifies that

ASHUTOSH KUMAR SRIVASTAVA

has successfully completed the 40 hours

Auditor / Lead Auditor Training Course which meets the training requirements of the Exemplar Global and has been declared as competent in the following competency units

- EnMS: Energy Management System
- AU: Management Systems Auditing
- TL: Leading Management Systems Audit Teams

ISO 50001:2018

Issue Date: 12th Sep. 2022

Certificate Number : 2209123622030102

Authorised Signatory
(Pragjesh Singh)

This course is certified by Exemplar Global vide registration number: 2209123622030102

Note: The course conforms to the principles and practices outlined in the ISO 50001:2018 standard for compliance with standards. This certificate is recognized by Exemplar Global. For more information, please write to Mail: info@exemplarglobal.com



Zoom



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Has successfully completed the 40 hours

Auditor / Lead Auditor Training Course which meets the training requirements of the Exemplar Global and has been declared as competent in the following competency units

- OH: Occupational Health and Safety
- AU: Management Systems Auditing
- TL: Leading Management Systems Audit Teams

ISO 45001:2018

Issue Date: 28th Sep. 2021

Certificate Number : 2109281221030101

Authorised Signatory
(Pragya Singh)

This course is certified by Exemplar Global vide registration number TN0066

Note: The course conforms to the principles and practices of ISO 45001:2018 Management Systems for compliance with standards. This certificate remains the property of TNV. If this certificate is recognized by Exemplar Global, the recipient should apply to the state, please write to Mail: info@isoirs.org



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An Overview of ISO/IEC 17020:2012 for Inspection Bodies

organized by

Training and Capacity Building (TCB) Cell, Quality Council of India

on

04 June 2022



Alok Jain
Director & Head, TCB

Cert No. TCB/QCI/040622/03-001

QUEST (An eLearning Platform of TCB)
Quality Council of India



CERTIFICATE OF PARTICIPATION

This certificate is awarded to

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organized by

Training and Capacity Building (TCB) Cell, Quality Council of India

on

28-29 December 2022



Alok Jain
Director & Head, TCB

Cer No. TCB/QCI/291222/05-008

QUEST (An eLearning Platform of TCB)



Certificate of Training

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ASHUTOSH KUMAR SRIVASTAVA

Has successfully completed the 40 hours

Auditor / Lead Auditor Training Course which meets the training requirements of the Exemplar Global and has been declared as competent in the following competency units

- OH: Occupational Health and Safety
- AU: Management Systems Auditing
- TL: Leading Management Systems Audit Teams

ISO 45001:2018

Issue Date: 28th Sep. 2021

Certificate Number : 2109281221030101

Authorised Signatory
(Pragyesh Singh)

This course is certified by Exemplar Global vide registration number TN006

Note: The course conforms to the principles and practices of ISO 45001:2018 Management Systems for compliance with standards. This certificate remains valid only if ISO 45001:2018 certificate is recognized by Exemplar Global. For more details, please write to Mail: info@exemplar.com

Pragyesh Singh
Institute of Management Studies
Director
NOIDA

isplay



Certificate of Training

TNV hereby certifies that

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has successfully completed the 40 hours

Auditor / Lead Auditor Training Course which meets the training requirements of the Exemplar Global and has been declared as competent in the following competency units

- EM: Environmental Management System
- AU: Management Systems Auditing
- TL: Leading Management Systems Audit Teams

ISO 14001:2015

Issue Date: 28th Sep. 2021

Certificate Number : 2109280721030101

Authorised Signatory
(Pragyash Singh)

This course is certified by Exemplar Global vide registration number TN001001.

Note: The course conforms to the principles and practices of ISO 14001:2015 systems for compliance with standards. This certificate remains the property of Exemplar Global. This certificate is recognized by Exemplar Global. For more information, please write to Mail: info@exemplar.com





Certificate of Training

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Auditor / Lead Auditor Training Course which meets the training requirements of the Exemplar Global and has been declared as competent in the following competency units

- QM: Quality Management System
- AU: Management Systems Auditing
- TL: Leading Management Systems Audit Teams

ISO 9001:2015

Issue Date: 26th Jul. 2021

Training Date: 14th to 18th Jul. 2021

Certificate Number : 2107280221020102

Authorised Signatory
(Pragya Singh)

This course is certified by Exemplar Global vide registration number TN001

Note: The course conforms to the principles and practical aspects of ISO 9001:2015 systems for compliance with standards. This certificate is issued by Exemplar Global. This certificate is recognized by Exemplar Global. For more information, please write to Mail: info@exemplarglobal.com

Pragya Singh



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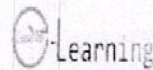
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Executive Director
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Chairman
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Hussain Shirazi
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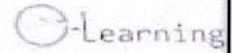
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Executive Director
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Pradeep Bhargava

Chairman
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Indian Green Building Council
C/o. Confederation of Indian Industry
CII - Sohrai/ Godrej Green Business Centre
Survey No 84, Kotaguda Post, Near HITEC City
R R District, Hyderabad - 500084
Tel: 91-40-44185111 Fax: 91-40-44185119
Email: igbc@cii.in
Website: www.greenbusinesscentre.com ;
www.igbc.in

V Suresh
Chairman

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr Ashutosh Kumar Srivastava** is one of the individual Members of Indian Green

Building Council (IGBC) for the Year Jan 2020 to Dec 2024.

Mr Ashutosh Kumar Srivastava membership number is "IGBC - IM - 10500131".


V Suresh





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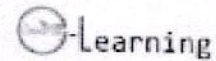
Hussain Shariyarr
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Directors Education Committee



Issued by CII-Sustainable Growth Business Centre



Issued on 10 June 2020



CII/CM/EECES/0420258





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hereby certifies that

Ashutosh Kumar Srivastava

has successfully demonstrated knowledge on the Green Building Design & Construction, Building Standards & Codes, IGBC Resources & Processes and Green Design Strategies & their Impacts required to be awarded the title of

IGBC Accredited Professional

K S Venkatagiri
Executive Director
Of-Goore, IGBC

9562

V Suresh
Chairman
Indian Green Building Council

06 June 2020

Gurmit Singh & Co.
Vice-Chairman
Indian Green Building Council



Certificate of Registration



This is to certify that Occupational Health & Safety Management System of

GC Consultancy Services

Flat No. 614, Vasant Enclave, Rajender Nagar, Gorakhnath,
Gorakhpur-273015 India

is in accordance with the requirements of the following standard

ISO 45001:2018

(Occupational Health & Safety Management System)

SCOPE

Conducting Environmental audits in coordination with CII Green Co Certifications
which includes Energy, Renewable Energy, Water Conservation,
Waste Water Management, Life Cycle Assessment

Certificate Number : SCK/03/GCC/22/911847

Initial Registration Date : 20-Jun-2022

1st Surveillance Date : 20-Jun-2023

2nd Surveillance Date : 20-Jun-2024

Certificate Expiry Date : 19-Jul-2025

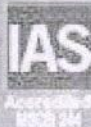
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Flat No. 614, Vasant Enclave, Rajender Nagar, Gorakhnath,
Gorakhpur-273015 India

is in accordance with the requirements of the following standard

ISO 14001:2015
(Environmental Management System)

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Certificate Number : SCK/M2/GCC/22/91/M846

Initial Registration Date : 20-Jul-2022
1st Surveillance Date : 20-Jun-2023
2nd Surveillance Date : 20-Jun-2024
Certificate Expiry Date : 19-Jul-2025

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Flat No. 614, Vasant Enclave, Rajender Nagar, Gorakhnath,
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ISO 9001:2015

(Quality Management System)

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Conducting Environmental audits in coordination with CII Green Co Certifications
which includes Energy, Renewable Energy, Water Conservation,
Waste Water Management, Life Cycle Assessment

Certificate Number : SCK/13/CC/22/911845

Initial Registration Date : 20-Jul-2022

1st Surveillance Date : 20-Jun-2023

2nd Surveillance Date : 20-Jun-2024

Certificate Expiry Date : 19-Jul-2025

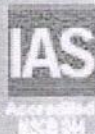
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THE NATIONAL SMALL INDUSTRIES CORPORATION LIMITED

(A Government of India Enterprise)

Ss. No. K187885

Branch Office : NSIC Limited, 112/1, 11nd Floor, Benajhabar Road, Kanpur-208 002

Ph : 0512-2535049

Fax : 0512-2543217

Email : bokan@nsic.co.in

Website : www.nsic.co.in

STORE DETAILS CERTIFICATE

Amendment Certificate Certificate (Valid From 18/10/2022 to 17/10/2023)

ANNEXURE TO GOVERNMENT PURCHASES ENLISTMENT CERTIFICATE

NO. NSIC/GP/KAN/2022/0050413 D.T. 05/12/2022

ISSUED TO : M/s. G C Consultancy Services, UTTAR PRADESH

Flat No 814, Vasant Enclave, Rajender Nagar, Lachipur,, GORAKHPUR, UTTAR PRADESH-273015

Sno	Name of Service/ Activities	Definition of Activity/ Service(s)	Quantitative Capacity/Services PMPs
1	ENVIRONMENTAL CONSULTANCY	RENEWABLE ENERGY ENERGY WATER CONSERVATION WATER WASTE MANAGEMENT LIFE CYCLE ASSESSMENT	Rs.5 LAKH

CHECKED BY

S.N. YADAV

M/s. G C Consultancy Services



Branch Manager
NSIC LTD.
112/1, Benajhabar Road, Kanpur-208 002
www.nsic.co.in

*Authenticity of the certificate can be checked through the web portal: www.nsicsonline.com



CIN : U74140DL1955GU1002481





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THE NATIONAL SMALL INDUSTRIES CORPORATION LIMITED

(A Government of India Enterprise)

S.No. KAN-0002870
SP. No. 123061

Branch Office : NSIC Limited, 112/1, 11nd Floor, Benajhabar Road, Kanpur-208 002

Ph : 0512-2535049

Fax : 0512-2543217

Email : bakan@nsic.co.in

Website : www.nsic.co.in

GOVERNMENT PURCHASE ENLISTMENT CERTIFICATE

Amendment Certificate Certificate (Valid From 18/10/2022 to 17/10/2023)

Ref.No NSIC/GP/KAN/2022/93853

Date: 05/12/2022

M/s. G C Consultancy Services
FLAT No- 614, VASANT ENCLAVE, RAJENDRA
NAGAR,
GORAKHPUR,
UTTAR PRADESH- 273015

Factory Address:

1. Flat No. 614, Vasant Enclave, Rajender Nagar,
Lacchipur,
GORAKHPUR, UTTAR PRADESH -273015

Name of the Proprietor

ASHUTOSH KUMAR SRIVASTAVA

Constitution:

Udyam Registration

Enterprise Social Class:

Special Category:

Proprietorship

Number UDYAM-UP-32-

GENERAL

GENERAL

0023384

GOVERNMENT PURCHASE REGISTRATION NO: NSIC/GP/KAN/2022/0050413

Monetary Limit: ₹ 5 lakhs (₹ Five Lakh Only)

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Your name has been registered as a MSE Unit eligible for participation in the Central Government Store
Purchase Programme as per the Single Point Registration Scheme for the following
Item(s)/Store(s)/Service(s).

Name of the Store(s)/ Service(s)	Specification(s)	Qualitative Capacity	Quantitative Capacity P.M.P.S.
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"As per List Attached" (1 item only)

Disclaimer: 1. The purchasing agencies are advised to satisfy themselves with the store details in the certificate while doing the Technical Evaluation stage before placing the tender/order on the units, certified by NSIC.

2. This certificate will be valid subject to compliance of definition (Composite criteria of investment and turnover for classification of Micro, Small Enterprises as per MSMED Act).



(Signature)
Sd/- Mr. Anand Kumar Srivastava
General Manager
NSIC Limited, Govt. of India Enterprise
112/1, 11th Floor, Benajhabar Road, Kanpur
Uttar Pradesh - 208002

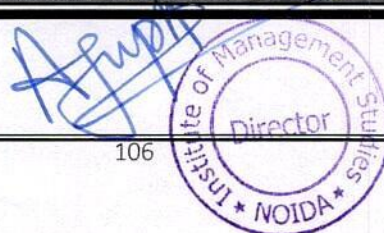
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"Authenticity of the certificate can be checked through the web portal: www.nsicsonline.com"



CIN : U74140DI1955GO1002481

Conditions overleaf



Certificate of

Energy & Renewable Energy Audit

This is to certify that

At the Institute of Management Studies Noida, U.P. Energy & Renewable Energy Audit was successfully completed on 17th/ 18th May 2022 in accordance with the standards set by The Ministry of New and Renewable Energy (MNRE) norms Energy & Renewable Energy.



Certificate No. GCCS/AC/22/835761

Initial Register Date : 2022-05-17

Issue Date. 2022-05-19

1st Surveillance Date : 2023-05-17

2nd Surveillance Date : 2024-05-17

Certificate Expiry Date : 2025-05-18

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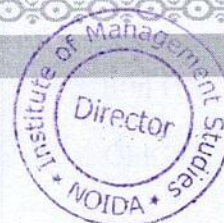
Ashutosh Kumar Srivastava
(Director)



Assessor International Accreditation Services (IAS)
& Assessor NABCB/QCI, Under Ministry of
Commerce, Lead Auditor ISO 9001,14001,
17020, 22001, 45001, 50001.

G C Consultancy Services

Flat No. 614, Vasant Enclave, Rajendra Nagar, Gorakhnath, Gorakhpur, U.P. 273015
Contact : gecs4114@gmail.com || 7007794292 || 9027084812



Certificate of

Environmental / Green Campus Audit

This is to certify that

At the Institute of Management Studies, Noida U.P. Environmental/ Green Campus Audit was successfully completed on 17th/ 18th May 2022 in accordance with the standards set by the MoEF&CC and the CPCB & MPSPCB norms for Water, Wastewater, Fire Fighting Equipment, Sanitation & Hygiene, the Ambient Air Quality, Waste Management and Biodiversity.



Certificate No. GCCS/AK/22/376278

Initial Register Date : 2022-05-17

Issue Date. 2022-05-19

1st Surveillance Date : 2023-05-17

2nd Surveillance Date : 2024-05-17

Certificate Expiry Date : 2025-05-18

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