GREEN, ENERGY AND ENVIONMENT AUDIT REPORT 2021-2022 ARMY INSTITUTE OF MANAGEMENT & TECHNOLOGY



Director
Air Cmde (Dr) J.K. Sahu (Retd)

Green, Energy and Environment Audit Assessment Team

INTERNAL MEMBERS

- Dr. Mritunjay Kumar, IQAC Coordinator, AIMT Greater Noida
- Dr Anubhav Varma, HoD, Department of Finance, AIMT Greater Noida
- Prof. S. Mohanty, HoD ,IT, AIMT Greater Noida
- Dr. Pallavi Bhardwaj, HOD, Marketing, AIMT Greater Noida.
- Dr. Babita Bhati, HOD, HR, AIMT greater Noida.
- Hony CaptYogesh Kumar Estate Supervisor, AIMT Greater Noida

EXTERNAL MEMBERS

- Dr Pratibha Garg, Army Institute of Education
- Dr Tuneera Bhadauria, Dept of Zoology, Firoz Gandhi PG College, Raeberaliy

CONTENTS

Sr. No.	Titles/Topics	Page No.
1	INTRODUCTION	4
2	OBJECTIVES	4
3	METHODOLOGY	5
4	ABOUT THE COLLEGE	5
5	VISION & MISSION STATEMENT	6
6	GREEN AUDITING	6
7	OBSERVATIONS	7
8	LAND USE ANALYSIS AT AIMT (As on 01 Jan 2018)	7
9	GEOGRAPHICAL LOCATION WITH CAMPUS MAP IN SCALE	8
10	TREE DIVERSITY OF AIMT	10
11	FAUNAL DIVERSITY IN AIMT	13
12	WEATHER DATA OF AIMT	17
13	AIR QUALITY OF AIMT	19
14	WATER ANALYSIS REPORT OF AIMT	19
15	NOISE LEVEL IN THE SURROUNDING OF AIMT	23
16	WASTE DISPOSAL AT AIMT	25
17	TRANSPORTATION AT AIMT	26
18	ELECTRICAL POWER CONSUMPTION AT AIMT	27
19	EXPENDITURE ON GREEN INITIATIVES DURING THE LAST FIVE YEARS	29

INTRODUCTION

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of institute. It aims to analyses environmental practices within and outside of the concerned place, which will have an impact on the eco-friendly atmosphere. Green audit is a valuable means for a college to determine how and where they are using the most energy or water or other resources; the college can then consider how to implement changes and make savings. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of Green impact on campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus it is imperative that the college evaluate its own contributions toward a sustainable future. 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.

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development and at the same time reduce a sizable amount of atmospheric CO2 from the environment. The National Assessment and Accreditation Council, New Delhi (NAAC) has made it mandatory that all Higher Educational Institutions should submit an annual Green Audit Report. Moreover, it is part of Corporate Social Responsibility of the Higher Educational Institutions to ensure that they contribute towards the reduction of global warming through carbon footprint reduction measures.

OBJECTIVES

In recent time, the Green Audit of an institution has been becoming a paramount important for self-assessment of the institution which reflects the role of the institution in mitigating the present environmental problems. The college has been putting efforts to keep our environment clean since its inception. Therefore, the purpose of the present green audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out Green Audit are:

- To map the Geographical Location of the college
- To document the floral and faunal diversity of the college
- To record the meteorological parameter of Gautam Buddha Nagar where college is situated
- To document the ambient environmental condition of weather, air, water and noise of the college
- To document the waste disposal system
- To estimate the Energy requirements of the college
- To report the expenditure on green initiatives during the last five years

METHODOLOGY

The purpose of the green audit of AIMT is to ensure that the practices followed in the campus are in accordance with the Green Policy of the country. The methodology includes: collection of data, physical inspection of the campus, observation and review of the documentation and data analysis.

ABOUT THE INSTITUTE

Army Institute Of Management & Technology (AIMT) is a premium MBA Institute in Greater Noida (NCR) near Delhi. Established by the Army Welfare Education Society (AWES) in 2004 in the hi-tech city of Greater Noida. The forerunner of the Institute was Faculty of Management Studies (FOMS), College of Materials Management (CMM), Jabalpur which was set up in summers of 1995. In a span of about ten years, FOMS carved a niche for itself and became a reputed business institution. In 2002 the college relocated and re-established itself with a new identity and a new name in the plush and quite environs of Greater Noida (NCR).

AWES has so far established 130 Army Schools and 12 professional colleges. The AIMT was established with the aim of meeting the increasing needs of industry for Management and Computer Application professionals and to extend the benefit of affordable education to the wards of Army personnel. The AIMT campus was constructed over , a sprawling area of 15.34 acres, which is 41kms from Delhi railway station.

AIMT, Greater Noida conducts MBA and BBA programs in a fully residential campus since Aug 2004. The institute is affiliated to the Guru Gobind Singh Indraprastha University (GGSIP), Delhi. The campus can accommodate nearly 500 students at its peak capacity. The institute is set to become one of the premiere professional colleges of the country. The college has witnessed near 100% placements with average package

of 5.5 lacs. The AIMT not only assist students in getting Placement but also encourages and trains them to be an entrepreneur with proven track record

The institute has equipped with all modern learning tools/facilities, with the aims to provide top class management and education to the wards of army personnel's (students). The college has state of art AC lecture halls with full ICT facilities. The campus also provides residential complex to house all its teaching and non teaching staff.

VISION & MISSION OF THE INSTITUTE

OUR VISION

Strive to achieve a unique blend of academic excellence and managerial skills to address the needs of the business environment in a manner that lets each participant achieve his potential in a value, based character-centric mould fostering holistic development of youth

OUR MISSION

To transform students through generating and propagating new ideas of significance into dynamic leaders- Manager who are adequately empowered to effect change in managerial and administrative practices to enhance performance of organization.

GREEN AUDITING

The college has adopted the 'Green Campus' system for environmental conservation and sustainability. There are main three pillars i.e. zero environmental foot print, positive impact on occupant health and performance and 100% graduates demonstrating environmental literacy. The goal is to reduce CO₂ emission, energy and water use, while creating atmosphere where students can learn and be healthy.

LAND USE ANALYSIS, AIMT GREATER NOIDA (UP)

GENERAL OVERVIEW OF THE CONCEPT OF LANDUSE

Land use refers to man's activities and the various uses which are carried on and derived from land. Viewing the earth from space, it is now very crucial in man's activities on natural resource. In situations of rapid changes in land use, observations of

the Earth from space give the information of human activities and utilization of the landscape.

Remote sensing and GIS techniques are now providing new tools for advanced land use mapping and planning. The collection of remotely sensed data facilitates the synoptic analyses of earth system, functions, patterning, and change in the local, regional as well as at global scales over time. Satellite imagery particularly is a valuable tool for generating land use map.

METHODOLOGY ADOPTED FOR LAND USE MAPPING

Three types of data that are GPS points, field survey data and Google earth data for Geo referencing have been used in this study. Land use map of the study area have been prepared using the above three types of data with the help of ArcGis Pro software.

DATA PROCESSING AND ANALYSIS

Land use map preparation is executed through the following steps:

Acquisition of data (Location: 28.4744° N, 77.5040° E), Geo-coding and Geo referencing of satellite imageries by extracting the ground control points. Supervised classification was carried out with the aid of ground truth data collected during field survey. Scanning and digitization of maps and editing of all the Geo referenced maps were done using GIS. Data manipulation and analysis and linking the spatial data with the attribute data for creation of topology was carried out using GIS software. Creation of GIS output in the form of land use map showing various land use have been prepared.

Therefore, attempt has been made in this study to map land use for AIMT Greater Noida with a view to detect the land consumption in the built-up land area using both remote sensing and GIS techniques.

GEOGRAPHICAL LOCATION WITH CAMPUS MAP IN SCALE

The college has a sprawling pollution-free campus spread over 15.34 acres of land in the heart of District Gautam Buddha Nagar U P, and is a very poplar land mark in the Area . It has an ideal geographical location with the proximity to the important cities of

linkage of Delhi Agra High way. The college is located at 1 kms from knowledge Park, metro Station, 30 kms from Hazrat Nizamuddin Rly station New Delhi.

Photo 1: Aerial View of College Campus Part1 (Source Google Earth)

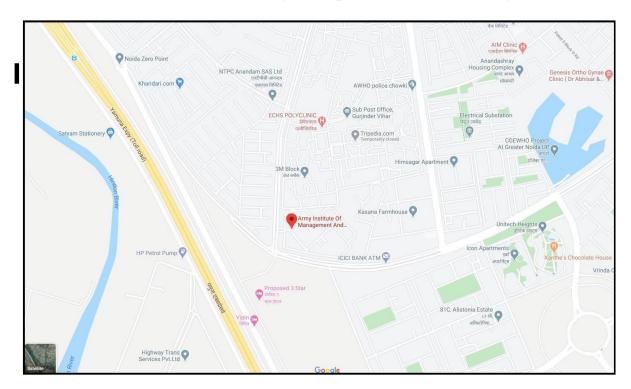
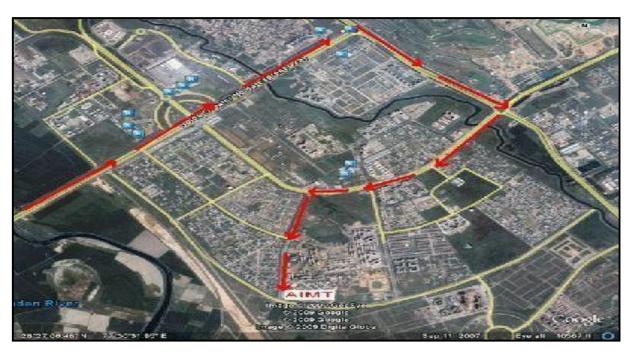


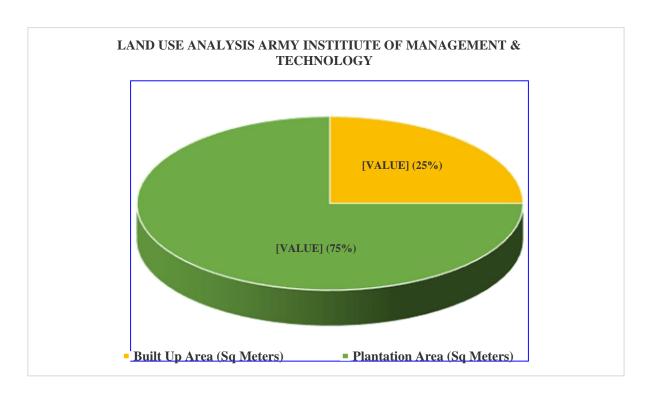
Photo 2: Aerial View of College Campus Part1 (Source Google Earth)



Green Audit Report, AIMT Gr Noida

	HICE D		A T N T T	CDEA	TED	NOIDA
LAND	USED	$\mathbf{A} \mathbf{I} \mathbf{A}$	AUVII	UTNEA	ILCK	NULL

CATEGORIES OF LAND USE	AREA (Sqm)
PLANTATION AREA	80,705.274
BUILT UP AREA (INCLUDE ROADS)	18,624.294
TOTAL AREA	62,080.80



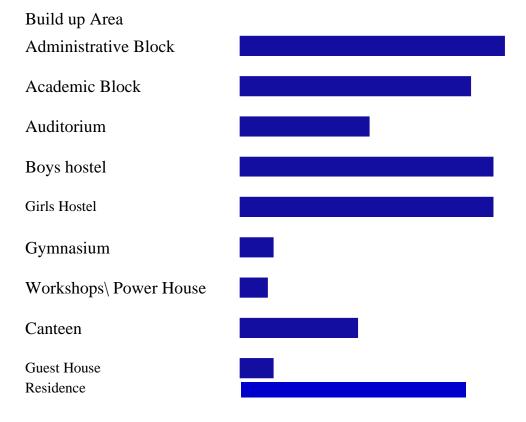
The total area of AIMT, Gautam Budaha Nagar is 62,080.980 Sqm out of which the built up area include Roads is 25% (i.e 18,624.292 m2) and plantation area is 75% (i.e. 80,705.274 m2).

LAND USE (BUILT UP AREA) ANALYSIS

The built up area of 25% (i.e 18,705.274 m2) consists of the following regions as stated below for land consumption in built up area of AIMT:

The northern region of AIMT is densely built up having Main Academic Block Auditorium, directors residence, Staff quarters , and The southern region comprises of guest houses hostels , Faculty Flats, and a Sports complex. Table: Area occupied by various buildings at AIMT,

Sr No	Name of Building	Number of Floors	Area (m2)
1.	Administrative Block	02	1811.681
2.	Academic Block	02	1452.949
3.	Auditorium	01	1037.752
4.	Boys Hostel	03	1772.572
5.	Girls Hostel	03	1772.572
6.	Gymnasium	02	287.755
7.	Workshops\ Power House	02	206.525
8.	Canteen/Lab/Library	03	853.443
9.	Guest House	03	286.648
10	Residence	03	1392.632



FINDINGS:

AIMT, which was established in the year 2004, has an eco-friendly environment. It has a long legacy of healthy environmental practices including periodic plantation use is such that about. environment. 75% of the total area is occupied by open land including playgrounds and plantation that generates a better and sustainable campus. environment. The Land use analysis Report is prepared by SIKAND ASSOCIATES ARCHITRCTS.

TREE DIVERSITY OF AIMT GR NOIDA UTTARPARDESH:

AIMT is within the geo-position between latitude 28.4744° Sqm N and longitude 77.5040° Sqm E in AIMT. It encompasses an area of about 15.34 Acres. The area is immensely diverse with a variety of tree species performing a variety of functions. Most of these tree species are planted in different periods of time through various plantation programmes organised by the authority and have become an integral part of the college. The trees of the college have increased the quality of life, not only the college fraternity but also the people around of the college in terms of contributing to our environment by providing oxygen, improving air quality, climate amelioration, conservation of water, preserving soil, and supporting wildlife, controlling climate by moderating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Many spices of birds are dependent on these trees mainly for food and shelter. Nectar of flowers and plants is a favourite of birds and many insects. Leaf – covered branches keep many animals, such as birds and squirrels, out of reach of predators. Different species display a seemingly endless variety of shapes, forms, texture and vibrant colours. Even individual trees vary their appearance throughout the course of the year as the seasons change. The strength, long lifespan and regal stature of trees give them a monument – like quality.. We often make an emotional connection with these trees and sometime become personally attached to the ones that we see every day. A thick belt of large shady trees in the periphery of the college have found to be bringing down noise and cut down dust and storms. Thus, the college has been playing a significant role in maintaining the environment of the entire GREATER NOIDA town and its surrounding areas. The following are the tree species with whom we are being attached-

Table: List of tree species of AIMT GREATER NOIDA

S.No.	Botanical Name	Family	Common Name	Total
1	Mangifera indica	Anacardiaceae	Mango	32
2	Araucaria heterophylla	Araucariaceae	Christmas Tree	17
3	Arecaceae	Arecaceae	Palm	14
6	Hyophorbe lagenicaulis	Arecaceae	Bottle Palm	13

7	Roystonea regia	Arecaceae	Cuban royal palm	2
8	Phoenix sylvestris	Arecaceae	Badela Palm	2
9	Terminalia bellirica	Combretaceae	Bahera	8
10	Platycladus orientalis	Cupressaceae	Oriental thuja	16
11	Saraca asoca	Fabaceae	Ashoka	72
12	Dalbergia sissoo	Fabaceae	Sissu / Tali	28
13	Vachellia nilotica	Fabaceae	Kikar	19
14	Cassia fistula	Fabaceae	Golden shower tree	13
15	Delonix regia	Fabaceae	Royal Poinciana	3
16	Tamarindus indica	Fabaceae	Tamarind	1
17	Tectona grandis	Lamiaceae	Sagwan	25
18	Punica granatum	Lythraceae	Pomegranate	1
19	Chukrasia velutina	Meliaceae	Chukrasia tabularis	23
20	Azadirachta indica	Meliaceae	Neem	27
21	Melia azedarach	Meliaceae	umbrella tree	21
22	Toona ciliata	Meliaceae	Tun	1
23	Morus alba	Moraceae	White mulberry	27
24	Ficus religiosa	Moraceae	Peepal	17
25	Ficus virens	Moraceae	White Fig	16
	Botanical Name	Family	Common Name	Total
26	Ficus elastica	Moraceae	Rubber Plant	7
27	Moringa oleifera	Moringaceae	saujana	2
28	Syzygium cumini	Myrtaceae	Jamun	55
29	Psidium	Myrtaceae	Gauva	50
30	Eucalypts	Myrtaceae	Safeda	26
31	Syzygium Aromaticum	Myrtaceae	Clove	3
32	Pongamia Pinata	Papilionaceae	Indian Beech tree	11
33	Phyllanthus emblica	Phyllanthaceae	Gooseberry	19
34	Bambusoideae	Poaceae	Bamboo	2
35	Grevillea robusta	Proteaceae	Silver Oak	50
36	Ziziphus mauritiana	Rhamnaceae	Ber	10
37	Prunus persica	Rosaceae	Pears	20
38	Pyrus pyrifolia	Rosaceae	Nakh	20
39	Prunus bokharensis	Rosaceae	Aloo Bukhara	8
40	Rosa	Rosaceae	Rose	70
41	Citrus limon	Rutaceae	Lemon	23
42	Citrus limetta	Rutaceae	Mausambi	8
43	Murraya koenigii	Rutaceae	Curry Leaf	2
44	Aegle marmelos	Rutaceae	wood apple	1
		+	Beechwood	1
45	Gmelina arborea	Rutaceae		
45 46		salicaceae		35
46	Populus Litchi chinensis	salicaceae	Poplar	
46 47	Populus Litchi chinensis	salicaceae Sapindaceae		35
46 47 48	Populus	salicaceae Sapindaceae Sapotaceae	Poplar Litchi	35 11
46 47 48 49	Populus Litchi chinensis Mimusops elengi Madhuca longifolia	salicaceae Sapindaceae Sapotaceae Sapotaceae	Poplar Litchi Maulsari Mahua/ Indian Butter Tree	35 11 30
46 47 48 49 50	Populus Litchi chinensis Mimusops elengi Madhuca longifolia Manilkara zapota	salicaceae Sapindaceae Sapotaceae Sapotaceae Sapotaceae	Poplar Litchi Maulsari Mahua/ Indian Butter Tree Chiku/Sapodilla	35 11 30 14
46 47 48 49 50 51	Populus Litchi chinensis Mimusops elengi Madhuca longifolia Manilkara zapota Vitis Vinifera	salicaceae Sapindaceae Sapotaceae Sapotaceae Sapotaceae Vitaceae	Poplar Litchi Maulsari Mahua/ Indian Butter Tree Chiku/Sapodilla Kismish/Raisins	35 11 30 14 11 29
46 47 48 49 50	Populus Litchi chinensis Mimusops elengi Madhuca longifolia Manilkara zapota	salicaceae Sapindaceae Sapotaceae Sapotaceae Sapotaceae	Poplar Litchi Maulsari Mahua/ Indian Butter Tree Chiku/Sapodilla	35 11 30 14 11

Green, Energy and Environment Audit Report, AIMT GR NOIDA

55	Citrus Reticulata	Rutaceae	Kinnow	17
56	Sukhmani		Sukhmani	29
57	Faux Black Kina		Faux Black Kina	22
58	Ficus Benghalensis	Moraceae	Barota	16
59	Badelia Kandia Flower		Badelia Kandia Flower	10
60	Momesia		Momesia	10
61	Rakh Manjan		Rakh Manjan	9
62	Red Faux		Red Faux	8
63	Mimusops	Sapotaceae	Sari	7
64	Flower Faux		Flower Faux	6
65	Needi		Needi	6
66	Ajmohar		Ajmohar	5
67	Green Fax		Green Fax	3
68	Faux (White)		Faux (White)	2
69	Gul Lakkar		Gul Lakkar	1
70	Tarbeni		Tarbeni	1
		Total		1092



Main Entry Road of College Campus



Tree Plantation drive

FAUNAL DIVERSITY IN AIMT CAMPUS:

AIMT is located in GREATER NOIDA District of Gautam Buddha Nagar (UP) pilgrimage site of. The highest temperature is recorded 46° C just prior to the onset of monsoon (around May- early June). Summer rain is normal.. The climatic condition of the GAUTAM BUDDHA NAGAR district as a whole and AIMT in particular is very suitable for a wide variedly of flora and fauna to support its rich biodiversity. The faunal Diversity of AIMT campus has been studied and documented as below:

Table: Common and Scientific names of birds and animals

S.No	Common Name	Scientific Name
1.	Peacock	pavacristatus
2.	pigeon	Columbidae
3.	Common Myna	Acridotheres Tristis
4.	House Crow	Corvus Splendens
5.	Cuckoo	Cuculidae
6.	House Sparrow	Passer Domestic
7.	Snake	Naja Naja
8.	Yellow Wasp	Ropalidia Marginata
9.	Butter Fly	Danaus Genutia
10.	Beetle insect on a hibiscus flower	Coleoptera \ Hibiscus rosasinensis
11.	Garden Tiger Moth	Arctia Caja
12.	Little Owl	Athene Brama
13.	Oleander Moth	Arctia Caja
14.	Slender Skimmer	Orthetrum Sabina





Peacock (pavacristatus)

Pigeon (Columbidae)





Common Myna (Acridotheres Tristis)

House Crow





Cuckoo (Cuculidae) (Domestic)

Sparrow House



(Passer





Snake (Naja Naja)

Yellow Wasp (Ropalidia









Garden Tiger Moth (Arctia Caja)

Little Owl (Athene Brama)





Oleander Moth (Syntomeida Epilais) (Orthetrum Sabina)

Slender Skimmer

WEATHER DATA OF AIMT, GAUTAM BUDDHA NAGAR

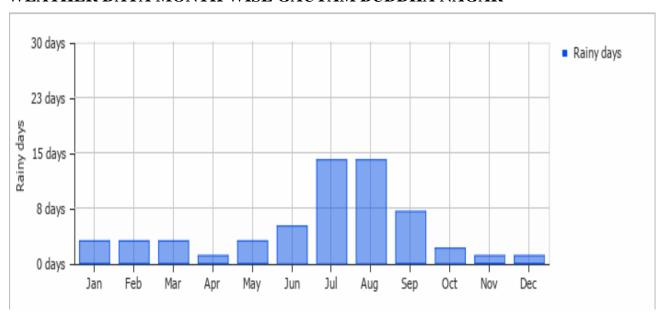
In the AIMT, Gautam Buddha Nagar, the climate is warm and dry. The summers are much hotter than the winters in Gautam buddha nagar. The average annual temperature in Gautam Buddha nagar During the month of January, February and December you are most likely to experience good weather with pleasant average temperatures that fall between 20 degrees Celsius (68°F) and 25 degrees Celsius (77°F).

The hottest season / summer is in March, April, May, June, July, August, September, October and November.

The months of June, July, August and September have a high chance of precipitation. Greater Noida has dry periods in February, March, April, May, October, November and December.

The warmest month is May with an average maximum temperature of 46°C (104°F). The coldest month is January with an average maximum temperature of 21°C (42°F). July is the most wet month. This month should be avoided if you are not a big fan of rain. November is the driest month of the year

WEATHER DATA MONTH WISE GAUTAM BUDDHA NAGAR

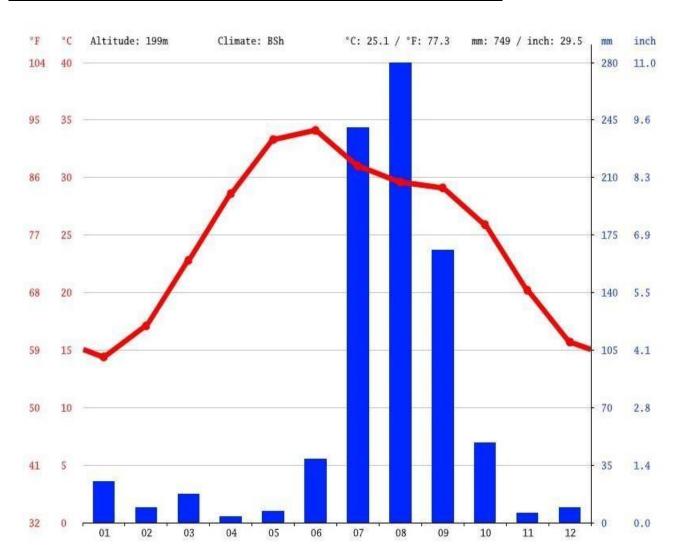


Temperature\ Month	Janu ary	Febru ary	Mar ch	Apri l	May	June	July	Aug ust	Septe mber	Octo ber	Nove mber	Dece mber
Avg. Temp. (°C)	13.3	16.2	21.2	27.3	44.3	45.6	44.6	40.5	33.5	30.5	25.2	14.8
Min. Temp (°C)	6.6	8.9	13.5	19	24.2	26.9	26.2	25.5	23.6	17.2	10.3	6.9
Max. Temp (°C)	20.1	23.6	29	35.7	40.4	40.4	35.1	33.6	34.5	32.7	28.2	22.8
Avg. Temp (°F)	55.9	61.2	70.2	81.1	90.1	92.5	87.1	85.1	84.2	76.8	66.6	58.6
Min. Temp (°F)	43.9	48.0	56.3	66.2	75.6	80.4	79.2	77.9	74.5	63.0	50.5	44.4
Max. Temp (°F)	68.2	74.5	84.2	96.3	104.	104.	95.2	92.5	94.1	90.9	82.8	73.0
Precipitation / Rainfall (mm)	32	26	26	6	11	37	256	192	132	35	4	13

• The likes of an alluvial plain are strong characteristics of the city of Gautam Buddha Nagar and its The city does have a Central location in the plan region. The geographical co-ordinate of Gautam Buddha Nagar are 28.4744° 77.504040° E. The city has an average altitude of 204.00m feet or 669.19 meters from the average sea level. The erstwhile land of Gautam Buddha Nagar was very much feasible for peanut cultivation with sand dunes. However a lot of irrigation and environmental changes have made the land more viable for wheat cultivation.

The climatic conditions bear a strong resemblance with the other cities in the northern part of India. The summers are usually very hot and the winters are very cold. The summers are prevalent during the months of April to September with June, July, August till mid September being the hottest months. The winter is prevalent from the month of November till the month of March. There is onset of Monsoon in September and from mid of September till November one experiences the transitional weather.

CLIMATE GRAPH MONTH WISE GAUTAM BUDDHA NAGR



AIR QUALITY IN GUTTAM BUDH NAGAR AND AIMT

The ambient air quality data for Gautam Buddha nagar and AIMT for the last one year shows that there are very less polluted particles in ambient air; AQI for SO2 & NOX parameters are within the range of Indian living standards, there are a number of factors responsible for this cleanliness, calmness and serenity in this area. Firstly, population which is most responsible for all the problems and hurdles in

Air Pollution Level at AIMT, Greater Noida

<u>Pollutant</u>	Avg	<u>Min</u>
PM2.5 (μg/m3)	<u>70</u>	<u>25</u>
PM10 (μg/m3)	<u>134</u>	<u>111</u>
NO2 (μg/m3)	<u>38</u>	<u>16</u>
NH3 (μg/m3)	<u>6</u>	<u>4</u>

Satisfactory air quality index (OVERALL= 73) in Gautam Buddha Nagar

WATER ANALYSIS REPORT OF AIMT



Water quality testing is important because it identifies contaminants and prevents water- borne diseases. Drinking or using contaminated water can result in severe illness or death. That is why it is important to ensure that drinking water is safe, clean and free from bacteria and disease.

The parameters for water quality are determined by the intended use. Work in the area of water quality tends to be focused on water that is treated for human consumption, or in the environment.

Drinking water indicators

The following is a list of indicators often measured by situational category:

- Alkalinity
- Color of water
- pH value
- Taste and odor (geosmin, 2-Methylisoborneol (MIB), etc.)
- Dissolved metals and salts (sodium, chloride, potassium, calcium, manganese, magnesium)
- Microorganisms such as fecal coliform bacteria (Escherichia coli),
 Cryptosporidium, and Giardia lamblia; see Bacteriological water analysis
- Dissolved metals and metalloids (lead, mercury, arsenic, etc.)
- Dissolved organics: colored dissolved organic matter (CDOM), dissolved organic carbon (DOC)
- Heavy metals

The following steps are helpful to improve drinking water quality at greater Noida

- 1. Boiling. This is a reliable way to purify water. ...
- 2. Use of Iodine solution, tablets or crystals. This is an effective and more convenient method. ...
- 3. Use chlorine drops. Chlorine has the ability to kill bacteria in water. ...
- 4. Use water filter. ...
- 5. Use Ultraviolet Light.

NOISE LEVEL IN THE SURROUNDING OF AIMT The human ear is constantly being assailed by man-made sounds from all sides, and there remain few places in populous areas where relative quiet prevails. There properties of sound:

- Loudness and
- Frequency.

Loudness is the strength of sensation of sound perceived by the individual. It is measured in terms of Decibels. Just audible sound is about 10 dB, a whisper about 20 dB, library place 30 dB, normal conversation about 35-60 dB, heavy street traffic 60-0 dB, boiler factories 120 dB, jet planes during take-off is about 150 dB, rocket engine about 180 dB. The loudest sound a person can stand without much discomfort is about 80 dB. Sounds beyond 80 dB can be safely regarded as Pollutant as it harms hearing system. The WHO has fixed 45 dB as the safe noise level for a city. For international standards a noise level up to 65 dB is considered tolerate. Loudness is also expressed in sones. One sone equals the loudness of 40 dB sound pressure at 1000 Hz. Frequency is defined as the number of vibration per second. It is denoted as Hertz (Hz).

MATERIALS, STUDY AREA & METHODS

Noise level meter or noise measuring app, Noise test pro (version: 1.0.2), was used to measure the noise level. Noise test pro detect of any noise, music or sound in your surroundings. It will tell you maximum, minimum and average decibels.

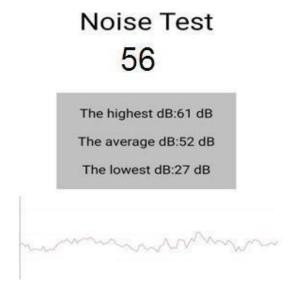


Figure: Noise Measurement by Noise Test Pro App

DESCRIPTION OF THE INSTITUTE SITE

The site of the AIMT is located next to AWHO town ship near omega 1 commercial market in Greater Noida.



Photo: satellite image of the college site

MEASUREMENT PROCEDURE

The noise level was recorded at the different Important Locations of AIMT, Gautam Buddha Nagar. At each spot, the measurements were taken for 60 seconds during day time (6 AM- 10 PM) and noted down the measurements. Screen shots of the measurements of noise were taken immediately on the app at the time of 60th second of each measurement.

RESULTS

The results of the experiments at different places have been tabulated in the following table: Table 1: Measurements of Noise in and around AIMT:

PLACE	MEASUREMENT S (Duration in Sec.)	(dBA)	Maximum (dBA)	AVERAGE (dBA)
Director Office	60	37	75	56
Library	60	38	72	55
Computer Lab	60	36	82	59
Canteen	60	32	72	52
Auditorium	60	35	69	52

Green, Energy and Environment Audit Report, AIMT GR NOIDA

Ground 1	60	56	72	64
Ground 2	60	59	71	65
Generator Room	60	53	69	61
Gymnasium	60	32	65	48.5
Faculty Flats	60	35	70	52.5
Staff Flats	60	40	71	55.5
Guest House	60	40	72	56
College Front Gate	60	54	80	67
Boys Hostel	60	32	70	51
Girls Hostel	60	33	70	51.5

WASTE DISPOSAL OF AIMT

Waste disposal are the activities and actions required to manage waste from its inception to its final disposal. This includes the collection, transport, treatment and disposal of waste, together with monitoring and regulation of the waste management process.

The waste from all around the college is separated daily as wet and dry waste in different bags which are disposed separately. Dry waste includes paper, cardboard, glass tin cans etc. on the other hand; wet waste refers to organic waste such as vegetable peds, left-over food etc. Separation of waste is essential as the amount of waste being generated today causes immense problem. The material was composted and evaluated as a fertilizing material. Disposal of these waste results in the production of good quality organic manure that can be used as soil amendments and source of plant nutrients.

With smart initiatives like "Think Green Campus Model", waste management is helping colleges and universities to achieve a higher level of environmental performance. By reusing or recycling we are contributing to the conservation of natural resources, saving energy, helping to protect the environment, reducing landfill. We will also reduce our impact on the environment by minimizing the carbon emissions associated with both disposing of old products and obtaining new ones. AIMT adopts environment friendly practices and takes necessary actions such as – energy conservation, waste recycling, carbon neutral etc. The biological reusable waste are processed as organic manure for the plants available in the college campus and the other solid waste generated in the college campus is taken to the community bin of Gautam Buddha Nagar municipality

for recycling and disposal.

Green, Energy and Environment Audit Report, AIMT GR NOIDA





TRANSPORTATION AT AIMT

Being a largest campus in the region, AIMT uses a fleet of buses for transportation of the students & staff from the around locations such as DELHI. The college is dedicated to provide its students and staff all the comfort and convenience to help them to achieve their targets. There are the clear and certifiable environmental benefits to higher bus ridership. By utilizing bus transportation, we reduce our automobile use and thereby help to promote clean air. It can convey many more people in much less space than individual automobiles, which helps to keep traffic congestion lower, which in turn reduces air pollution from idling vehicles, and helps riders avoid the stress that comes from daily driving in highly congested areas. By moving people more efficiently, bus transit produces significantly less air pollution per passenger mile than a standard car carrying a single driver. Buses emit approximate 20% less carbon monoxide, 10% as much hydrocarbons, and 75% as much nitrogen oxides per passenger mile as an automobile with single occupant. a





ELECTRICAL POWER CONSUMPTION AT AIMT:

AIMT, being one of the largest colleges of GREATER NOIDA consumes on an average 221 KVA of electricity which turns out to be 4423.1 KVA per year only to maintain its day to day activities throughout the year. The authority keeps on replacing the old filament bulbs, CFL bulbs and tube lights by low energy consuming LED bulbs ,LED tubes and LED flash lights and bulky high-power consuming fans by energy efficient fans in order to keep the electricity consumption of the college as low as possible.

In addition to making Environmental Studies a very vital subject in our syllabus, AIMT, has gone a step further by putting that theory into practice. The college has installed three sets of solar panels, one on girls hostel and, another one on and boys hostel roof of AIMT Hostel. The energy from this solar installation is helping in offsetting water heating requirement in both hostel blocks and hostel kitchen.

Solar water heating set up is saving roughly about 144 KW electricity this solar rooftop water heating plant was fixed by M/s sikand Associate Pvt Ltd, new delhi. Which is more reliable and greener option and reducing its carbon footprint. The Percentage of annual power requirement of the Institution met by the renewable energy sources is appox 3.7%, however the institute is planning a 180 KVA solar power generation plant which will meet appox 70% total power requirement of the

Power Requirements met by renewable energy sources	Total Power Requirements	Renewable energy Source	Energy supplied to the grid
144 KVA/year	4423.01KVA/Year	Solar	NIL



solar panel



Electrical Panel

Percentage of annual lighting power requirements met through LED bulbs

Response: 30%01

Response: 1121 Annual lighting power requirement met through LED bulbs (in KVA)

Total Annual Lighting Power Requirements = 2223.01 KVA

Total Lighting Requirements	through	Percentage Lighting through other sources
4423.01 KVA/Year	30.001%	50.998%

EXPENDITURE ON GREEN INITIATIVES DURING THE LAST FIVE YEARS:

Financial Year	Tree plantation/mai ntaince (Amount in Rs)	Gardening & lawn Work (Machines Running & Maintenance)	Purchase of LED's	Total (In Rupees)
2021-202	236485/-	477547/-	72852/-	786884/-
2020-2021	236285/-	476547/-	72652/-	785484/-
2019-2020	235285/-	436547/-	62652/-	754484/-
2018 - 2019	203492/-	474814/-	73516/-	751821/-
2017 - 2018	235295/-	549021/-	93184/-	877500/-
2016 – 2017	232283/-	541993/-	136333/-	910609/-
2015 – 2016	212691/-	496279/-		708970/-
2014 - 2015	188503/-	439841/-		628344/-

INTERNAL MEMBERS

- Dr. Mritunjay Kumar, IQAC Coordinator, AIMT Greater Noida
- Dr Anubhav Varma, HoD, Department of Finance, AIMT Greater Noida
- Prof. S. Mohanty, HoD ,IT, AIMT Greater Noida
- Dr. Pallavi Bhardwaj, HOD, Marketing, AIMT Greater Noida.
- Dr. Babita Bhati, HOD, HR, AIMT greater Noida.
- Hony CaptYogesh Kumar Estate Supervisor, AIMT Greater Noida

EXTERNAL MEMBERS

- Dr Pratibha Garg, Army Institute of Education
- Dr Tuneera Bhadauria, Dept of Zoology, Firoz Gandhi PG College, Raeberaliy