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

3. Clean And Green Campus Initiatives

GREEN AUDIT REPORT 2022
Vaagdevi Institute of Technology & Science

PRINCIPAL
Vaagdevi Institute of Technology & Science
PEDDASETTIPALLI
PRODDATUR, Kadapa (Dist.)

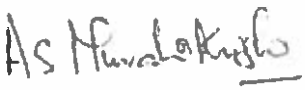
Prepared By: Global Management certifications Service Pvt.Ltd.
Approved By: Chairman,Green Audit

Green Audit Assessment Team;

1. K.Siva Naga Prasad, Lead Auditor EMS/EnMS

2. K.V. Murthy,Lead Auditor EMS/EnMS

3. Ch.Rama Rao,Lead Auditor EMS/EnMS



4. A.Murali Krishna,Lead Auditor EMS/EnMS

CONTENTS

INTRODUCTION:

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of institute. It aims to analyse environmental practice 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 COz from the environment. The National Assesstnent and Accreditation Council, New Delhi (NAAC) has made it mandatory that all Higher Educational Institutions should subunit 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 selt-- 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 the 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, Polices & standards.

- To map Geographical Location of the college
- To document the floral and faunal diversity of the college
- To record the metrological parameter of VITS where college is situated
- 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 VITS is to ensure that the practices followed in the carnpus are in accordance with the Green Policy of the country. The methodology includes: collection of data, physical inspection of the campus, observations and review of the documentation and data analysis.

ABOUT THE COLLEGE:

We take the pleasure to apprise you that, Vaagdevi Institute Technology & Science Institution is maintained under Vaagdevi of Institutions by G.Hussain Reddy, Chairman who began the journey as an educationalist to form the bridge between society, industry and academics. He has been in the field of education for the last 20 Years with the aim of spreading quality education in diverse fields such as Engineering & Management Education.

Faculty comprising of learned Academic institutions/Universities and reputed R&D Organizations. The senior professors explore the synergy of excellence in application-oriented teaching, research And consultancy experience in India and overseas. The college has state-of-art laboratories with Advanced hardware systems and software simulation tools to cater to the today's requirement of the Technology industry. The college has an excellent library facility with adequate number of volumes and journals to meet the student and faculty needs. It provides remote access to e - journals and e - books through remote log application. Digital library promotes e-learning among the staff and students. The college provides excellent sports and games facilities in cricket, basketball, volley ball and indoor games.

VISION & MISSION STATEMENT:

OUR VISION

"Our vision is to be a preeminent institution of engineering education and innovation, renowned for producing world-class engineers who lead technological advancements, drive economic growth, and solve global challenges."

OUR MISSION

At 'Vaagdevi Institute of Technology & Science', our mission is to provide a transformative educational experience that equips students with the knowledge, skills, and values needed to excel as engineers and leaders in a rapidly evolving world. Through rigorous academic programs, state-of-the-art facilities, and hands-on learning opportunities, we empower our students to think critically, solve complex problems, and innovate with creativity and integrity. Committed to excellence, diversity, and inclusivity, we foster a culture of collaboration, curiosity, and lifelong learning, preparing our graduates to make meaningful contributions to society and shape the future of technology for the betterment of humanity.

GREEN AUDITING:

The college has adopted the 'Green Campus' system for environmental conservation and sustainability. There are three main 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 COz emission, energy and water use, while creating atmosphere where students can learn and be healthy.

LAND USE ANALYSIS, VITS (As on 05.02.2021)

GENERAL OVERVIEW OF THE CONCEPT OF LAND USE

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 activates 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 Prosoftware.

DATA PROCESSING AND ANALYSIS:

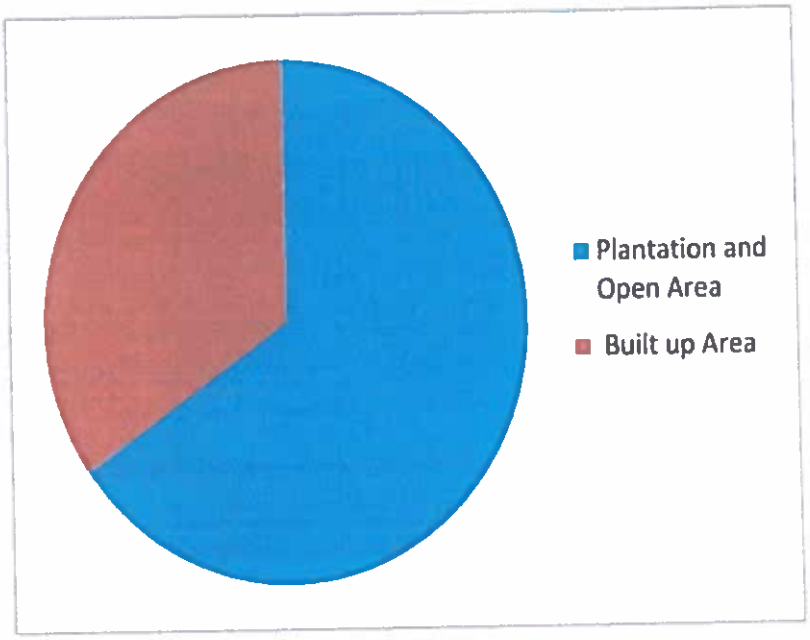
Land use map preparation is cxcuted through the following steps:

Acquisition of data (Location: 13.4276f N, 79.57364" 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 VITS with a view to detect the land consumption in the built up land area using both remote sensing and CIS techniques.

LAND USE DATA OF VITS,PRODDATUR

CATEGORIES OF LAND USE	AREA(In Acres)
PLANTATION AND OPEN AREA	19
BUILT UP AREA (INCLUDE ROADS)	10
TOTAL AREA	29

Land use Analysis,VITS



LAND USE (BUILT UP AREA) ANALYSIS:

The built up area of 35o/o consists of the following regions as stated below for land consumption in built up area of VITS The western region of VITS is densely built up having M Block (EEE and Examination Center)
M block with Principal office, Administrative Office and Electronic and communication Engineering Department (ECE). S block is totally allocated to first year students (First Year Block), CSE,

Table: Area Occupied by Various Buildings at VITS

	Class Room/Laboratory/Toilet, etc.)	(In m2)	of Flooring	of Walls and painting	Electrification and lighting
103B	Board Room	38.5	Ready	Ready	Ready
104P	Principal Directors Office	35.25	Ready	Ready	Ready
105O	Office All Inclusive	321.88	Ready	Ready	Ready
105S	Central Store	30	Ready	Ready	Ready
107E	Exam Control Office	56.96	Ready	Ready	Ready
201-B	Cabin for Head of Dept	12.87	Ready	Ready	Ready
201-C	Faculty Room	90.41	Ready	Ready	Ready
204Ee	Department Office	11.24	Ready	Ready	Ready
314P	Placement Office	51.63	Ready	Ready	Ready
316A	Housekeeping	15.6	Ready	Ready	Ready
316B	Pantry for Staff	15.5	Ready	Ready	Ready
401-A	Department Office	11.24	Ready	Ready	Ready
401-B	Cabin for Head of Dept	12.9	Ready	Ready	Ready
401-C	Faculty Room	160.06	Ready	Ready	Ready
501-A	Department Office	11.24	Ready	Ready	Ready
501-B	Cabin for Head of Dept	12.9	Ready	Ready	Ready
501-C	Faculty Room	100.06	Ready	Ready	Ready
B01-A	Department Office	11.24	Ready	Ready	Ready
Bsc-01	Cabin for Head of Dept	12.9	Ready	Ready	Ready
Bsc-02	Faculty Room	107.31	Ready	Ready	Ready
G2A	Maintenance	16.58	Ready	Ready	Ready
G2B	Security	15.91	Ready	Ready	Ready
G3	Reception Area	39.76	Ready	Ready	Ready
Mb-01	Cabin for Head of Dept	12.9	Ready	Ready	Ready
Mb-02	Faculty Room	30.17	Ready	Ready	Ready
Mb01-A	Department Office	11.24	Ready	Ready	Ready

AMENITIES AREAs

Room No.	Room type (mention Class Room/Laboratory/Toilet, etc.)	Carpet area (in m2)	Completion of Flooring	Completion of Walls and painting	Completion of Electrification and lighting
121	Stationery Store	15.75	Ready	Ready	Ready
Cantee	Cafeteria	360.89	Ready	Ready	Ready
F-12	Toilet	175.7	Ready	Ready	Ready
G-12	Toilet	175.7	Ready	Ready	Ready
G1	Sports Club	67.05	Ready	Ready	Ready
M-123	First aid cum Sick Room	15.78	Ready	Ready	Ready
M-222	Boys Common Room	100.61	Ready	Ready	Ready
S-321	Girls Common Room	100.6	Ready	Ready	Ready
Sac	Student activity / GCR	66.75	Ready	Ready	Ready

Room No.	Room type (mention Class Room/Laboratory/Toilet, etc.)	Carpet area (in m2)	Completion of Flooring	Completion of Walls and painting	Completion of Electrification and lighting
101Ws	Workshop	243.26	Ready	Ready	Ready
103Cs	Laboratory	113.94	Ready	Ready	Ready
104Lab	Laboratory	87.38	Ready	Ready	Ready
106Mcl	Computer Laboratory	77	Ready	Ready	Ready
108Mb	Classroom	104.29	Ready	Ready	Ready
109Mb	Classroom	68.39	Ready	Ready	Ready
110Mb	Tutorial Room	33.42	Ready	Ready	Ready
110Sem	Seminar Hall	142.25	Ready	Ready	Ready
113T	Tutorial Room	33.51	Ready	Ready	Ready
118Ws	Additional Workshop	205.13	Ready	Ready	Ready
201Cs	Classroom	70.06	Ready	Ready	Ready
201Lab	Laboratory	105.37	Ready	Ready	Ready
202Cs	Classroom	70.06	Ready	Ready	Ready
202Lab	Laboratory	105.54	Ready	Ready	Ready
203Cs	Classroom	68.8	Ready	Ready	Ready
204Cs	Classroom	70.06	Ready	Ready	Ready
206Lab	Laboratory	134.87	Ready	Ready	Ready
207Ee	Classroom	69.64	Ready	Ready	Ready
208Cs	Laboratory	139.58	Ready	Ready	Ready
208Ee	Classroom	69.64	Ready	Ready	Ready
209Ee	Classroom	68.81	Ready	Ready	Ready
210 C	Classroom	67.02	Ready	Ready	Ready
210Ee	Classroom	70.88	Ready	Ready	Ready
211Ee	Classroom	69.64	Ready	Ready	Ready
212 C	Classroom	67.02	Ready	Ready	Ready
212Ee	Classroom	69.64	Ready	Ready	Ready
213Ec	Classroom	68.39	Ready	Ready	Ready
214Pg	Research Laboratory	68.55	Ready	Ready	Ready
215Ec	Classroom	69.64	Ready	Ready	Ready
216Pg	Research Laboratory	68.55	Ready	Ready	Ready
217Lab	Laboratory	175.17	Ready	Ready	Ready
218L	Laboratory	104.75	Ready	Ready	Ready
218Lab	Laboratory	105.54	Ready	Ready	Ready
301Dr	CAD Center	177.06	Ready	Ready	Ready
301Lab	Laboratory	105.37	Ready	Ready	Ready
302Ec	Classroom	67.02	Ready	Ready	Ready
303Ec	Classroom	68.98	Ready	Ready	Ready
305Ec	Classroom	67.02	Ready	Ready	Ready
305Sem	Seminar Hall	180.95	Ready	Ready	Ready
306Ec	Classroom	69.64	Ready	Ready	Ready
307Ec	Classroom	68.81	Ready	Ready	Ready

308Cs	Laboratory	139.58	Ready	Ready	Ready
308Ec	Classroom	70.88	Ready	Ready	Ready
309Ec	Classroom	69.64	Ready	Ready	Ready
310Sem	Seminar Hall	68.39	Ready	Ready	Ready
310T1	Classroom	33.6	Ready	Ready	Ready
310T2	Classroom	33.5	Ready	Ready	Ready
311Pt	Tutorial Rooms - PG	33.4	Ready	Ready	Ready
311T	Tutorial Room	33.4	Ready	Ready	Ready
312Sem	Research Laboratory	68.55	Ready	Ready	Ready
312T	Tutorial Room	35.88	Ready	Ready	Ready
313Sem	Seminar Hall	135.23	Ready	Ready	Ready
314T1	Tutorial Room	33.52	Ready	Ready	Ready
314T2	Tutorial Room	33.52	Ready	Ready	Ready
315Lab	Laboratory	139.69	Ready	Ready	Ready
316L	Laboratory	105.25	Ready	Ready	Ready
316Lab	Laboratory	141.45	Ready	Ready	Ready

Application Number: 1-43662386127 All India Council for Technical Education

INSTRUCTIONAL AREA - COMMON FACILITIES:

Room No.	Room type (mention Class Room/Laboratory/Toilet, etc.)	Carpet area (in m2)	Completion of Flooring	Completion of Walls and painting	Completion of Electrification and lighting
106LL	Language Laboratory	78.25	Ready	Ready	Ready
112CC	Computer Center	164.02	Ready	Ready	Ready
G-1	Library&Reading Room	630.49	Ready	Ready	Ready

Consolidated Area Statement

Consolidated Area Statement For Existing & Proposed Courses

Instructional Area	**24844sqm**
Administrative Area	**5559sqm**
Amenities Area	**34531sqm**
Access and Circulation Area	**16234sqm**
Total Area	**81168sqm**

FINDINGS:

VITS which was established in the year 2002 has an eco-friendly environment. It has a long legacy of healthy environmental practices including periodic plantation, their preservation and maintenance. Its land use is such that about 65% of the total area is occupied by open land and plantation generates sa better and sustainable campus environment.

GEOGRAPHICAL LOCATION WITH CAMPUS MAP IN SCALE

The college has a **sprawling pollution-free campus spread over 10 acres** of land in Peddasettipalli near to Proddatur s. It has an ideal geographical location with the proximity to the important cities of the region Andhra Pradesh.

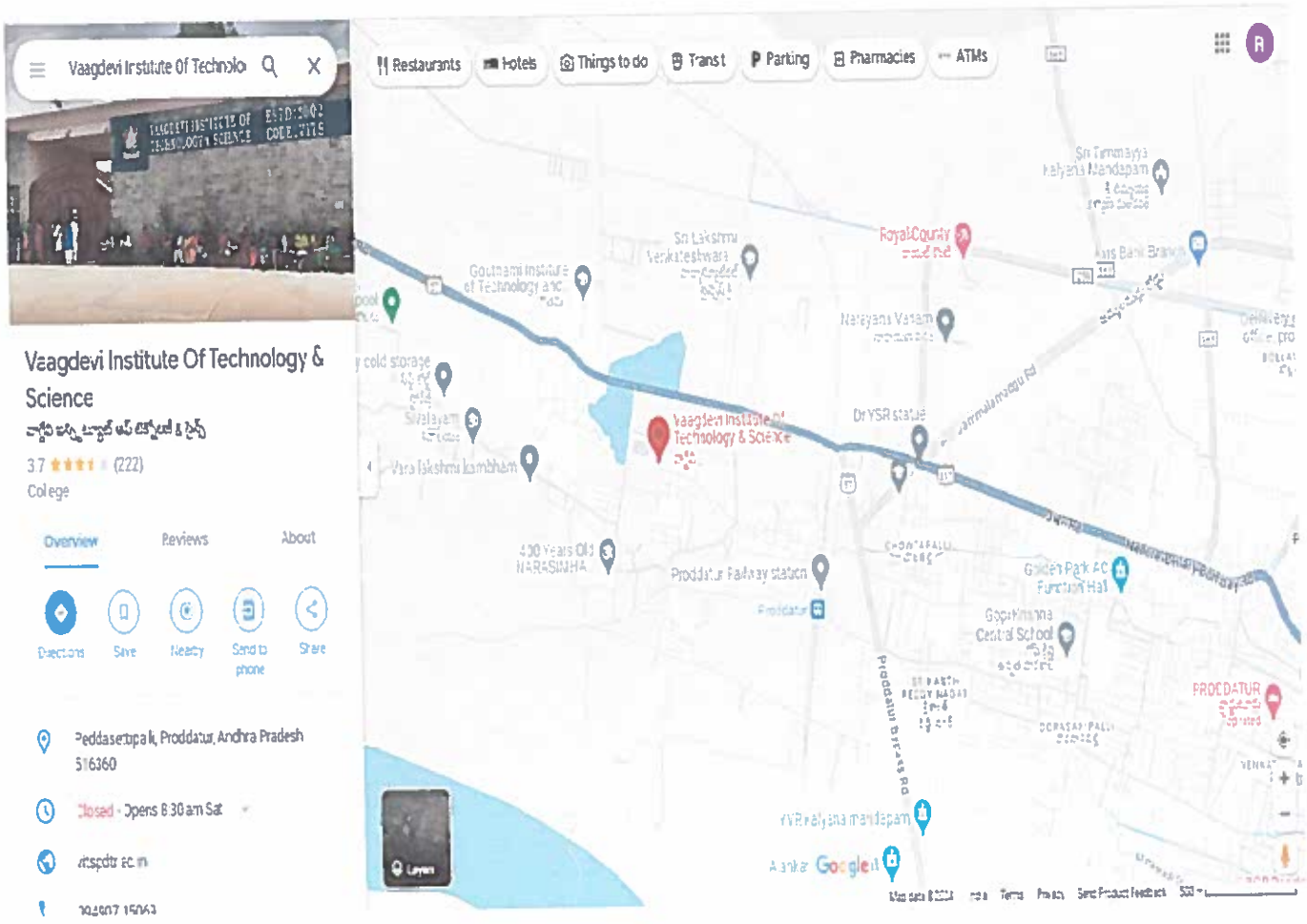
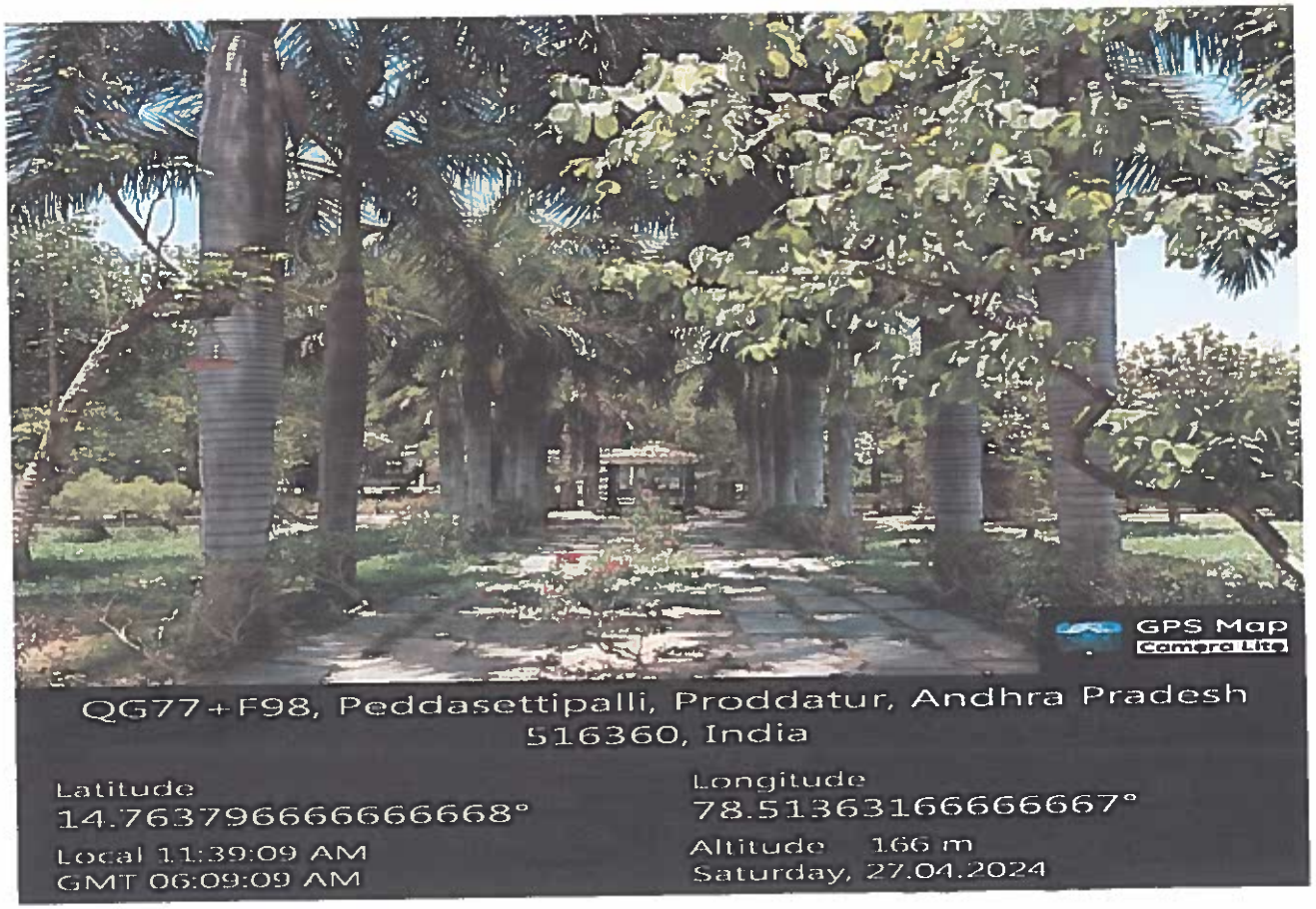


Photo1: Vits Geographical Location with College Campus Map.

Photo2: Aerial View of college campus (Source Google Earth)

TREE DIVERSTTY OF VITS, PRODDATUR:

VITS is within the geo-position between latitude 13.4276f N and longitude 79.573640 E in Proddatur Kadapa dishict, AndhraPradesh, India. lt encompasses an area of about 10 Acres. The area is immensely diversewith a variety of tree species performing avariety of functions. Most of these tree species are plantedin 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 contributingto our environment by providing oxygen, improving air quality, climate amelioration, conservationof 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 aud shelter. Nectar of flowers and plattts is a lavorite of birds and rrrany 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 colors. Even individual trees vary their appearance throughout the course ofthe year as the seasons change. The strength, long lifespan andregal stature of trees give thern a monument - like quality. They also remind us the glorious historyof VITS We often make an emotional connection with these trees and sometime becomepersonally attached to the ones that we see every day. A thick belt of large shady trees in the periphery of tl-re college have found to be bringing down noise and cut down dust and stotms. The following are the tree species with whom we are being attached.




GPS Map
Camera Lite
QG77+F98, Peddasettipalli, Proddatur, Andhra Pradesh
516360, India
Latitude
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Local 11:39:15 AM
GMT 06:09:15 AM
Longitude
78.513608333333334°
Altitude 163 m
Saturday, 27.04.2024

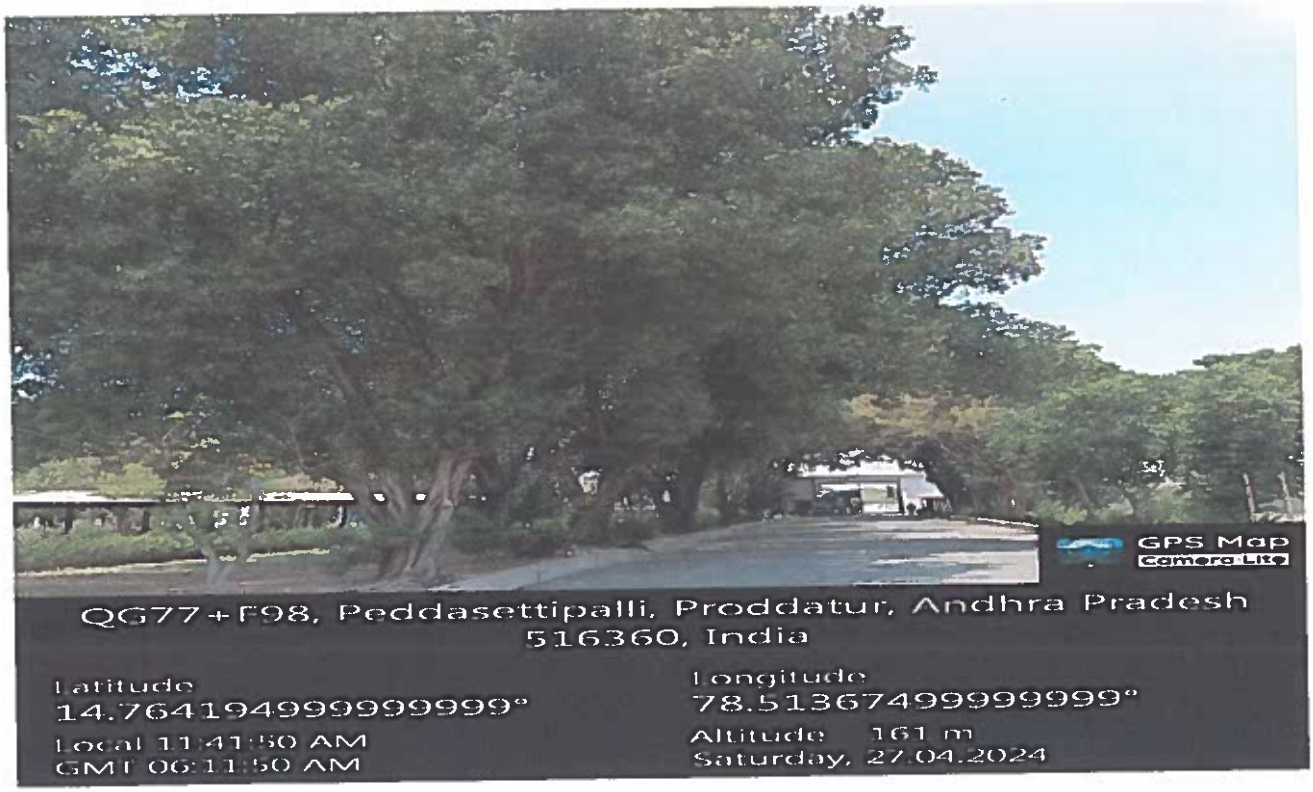

GPS Map
Camera Lite
QG77+F98, Peddasettipalli, Proddatur, Andhra Pradesh
516360, India
Latitude
14.764194999999999°
Local 11:41:50 AM
GMT 06:11:50 AM
Longitude
78.513674999999999°
Altitude 161 m
Saturday, 27.04.2024

Table:List of Tree Species of VITS ,PRODDATUR

S.No	Botanical Name	Family	Common Name	Total
1	Mangifera indica	Anacardiaceous	Mango	1
2	Citrus limon	Reticence	lemon	1
3	Tabernaemont anadiva ricata	Apocynaceae	Crape jasmine	30
4	Cocos nucifera	Arecaceae	Coconut	10
5	Psidium guaiava	Myrtaceae	Guava	2
6	Terminalia catappa	Combretaceae	Tropical almond	3
7	Azadirachta indica	Meliaceae	Neem	7
8	Hibiscus rosa-sinensis	Malvaceae	Hibiscus	6
9	Teccona grandis	Lamiaceae	Teku	10
10	Syzygiurn cumin	Myrtaceae	lndian blackberry	20
11	Ficus religiosa	Moraceae	Peepal	2
12	Bougainvillea glabra	Nyctaginaceae	Bouganivilea	6
13	Plummer rebar	Plumeria rubra	Ganneru	30

FAUNAL DIVERSITY IN VITS CAMPUS:

VITS is located in Proddatur, District of Kadapa, Andhra Pradesh, india. The highest temperature is Recorded 42° C just prior to the onset of monsoon (around May- early June). Rain season is normal, and is principally caused from late September to November by the moisture-laden North-East Monsoon, on striking the Eastem Ghats. The climatic condition of Proddatur- Kadapa district as a whole and VITS in particular is very suitable for a wide variety of flora and fauna to support its rich biodiversity. The faunal Diversity of VITS campus has been studied and documented as below:

Table: Common and Scientific Names of birds and animals

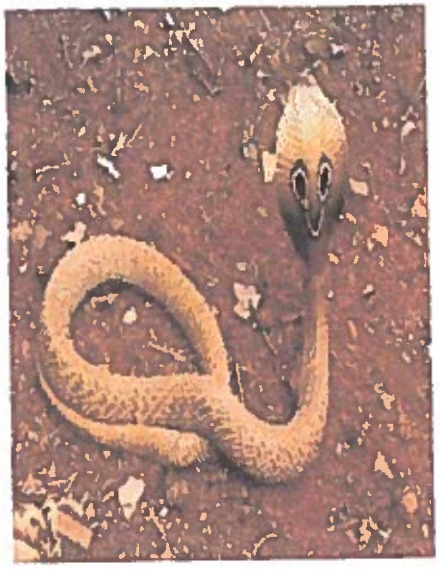
S.No	Common Name	Scientific Name
1.	Common Myna	Acridotheres Tristis
2.	Bank Myna	Acridotheres Ginginianus
3.	House Sparrow	Passer Domesticus
4.	House Crow	Corvus Sp
5.	Cuckoo	Cuculidae
6.	Snake	Naja Naja
7.	Yellow Wasp	Ropalidia Marginata
8.	Butter Fly	Danaus Genutia
9.	Common Woodshrike	Tephrodomis Pondicerianus
10.	Pied Myna	Gracupica Contra
11.	Red-Vented Bulbul	Pycnonotus Cafer
12.	Skylark	Aluda Gulgula
13.	Garden Tiger Moth	Arctia Caja
14.	Little Owl	Athene Brama
15.	Oleander Moth	Syntomeida Epilais
16.	Slender Skimmer	Orthetrum Sabina
17.	Bat	Acerodon jubatus
18.	Squirrel	Funambulus palmarum

Common Myna(AcridotheresTristis)

House Sparrow (PasserDomesticus)

House Crow(Corvus Splendens)

Cuckoo(Cuculidae)



Snake (Naja Naja)

Yellow Wasp (RopalidiaMarginata)

Butter Fly(Danaus Genutia)

Beetle insect on a hibiscusflower

WEATHER DATA OF VITS: Station: VITS, Proddatur (INDIA)
Location: 13.427 524" N, 79.57470 1' E

In VITS the climate is warm and temperate. The summers are less rainier than the winters in VITS The average annual temperature in VITS is 27.72"C. And precipitation level is about 70.69mm.

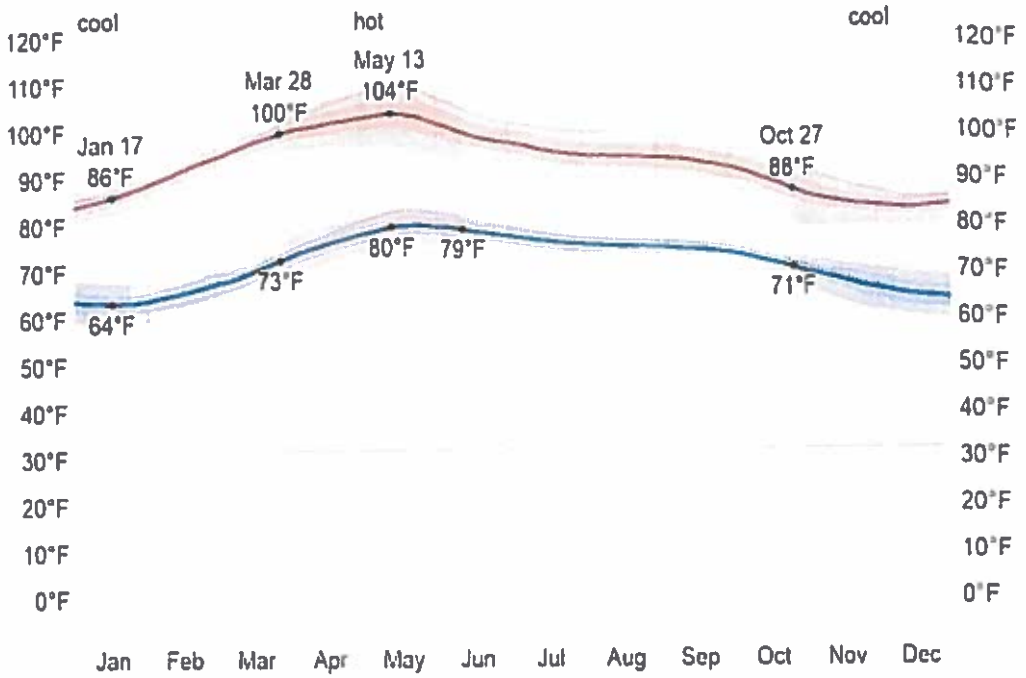
The driest month is generally February. There is 7 -6 mm of precipitation in February. The greatest amount of precipitation occurs in November, with an average of 203.2mm. With an average of 32.8"C, May is the warmest month. The lowest average temperatures in the year occur in January,when it is around 23.3"C. The precipitation varies 195.6 mm between the driest month and the wettest month. The variation in temperatures throughout the year is 9.5"C.

WEATHER DATA MONTH WISE VITS:

Temperature\Month	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temp. (°C)	23.3	25.6	28.3	31.1	32.8	31.1	29.4	28.9	28.3	26.7	24.4	22.8
Min. Temp (°C)	17.8	18.9	21.7	24.4	26.7	26.1	25.0	24.4	23.9	22.2	20.0	18.3
Max. Temp (°C)	30.0	33.3	36.7	38.9	40.0	37.8	35.6	35.0	34.4	32.2	29.4	28.9
Avg. Temp (°F)	74°F	78°F	83°F	88°F	91°F	88°F	85°F	84°F	83°F	80°F	76°F	73°F
Min. Temp (°F)	64°F	66°F	71°F	76°F	80°F	79°F	77°F	76°F	75°F	72°F	68°F	65°F
Max. Temp (°F)	86°F	92°F	98°F	102°F	104°F	100°F	96°F	95°F	94°F	90°F	85°F	84°F
Precipitation / Rainfall (mm)	12.7	7.6	7.6	20.3	40.6	50.8	71.1	88.9	99.1	170.2	203.2	76.2

The geographical co-ordinates of VITS are 13.427524" N, 79.574701'E. The city has an average altitude of 509 feet or 155.141 meters fram the Avarege sea
verymuch feasible for flowers cultivation.
The climatic conditions bear a strong resemblance with the other cities in the southern part of India. The summers are usually very hot and the winters are very cold. The summers are prevalent during the months of March to September with April and May 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 a from mid of August till December one experiences the transitional weather

CLIMATE GRAPH MONTH WISE VITS:



AIR QUALITY IN VITS:

The ambient air quality data for VITS for the last one year shows that there are very less polluted particles in ambient air; AQI for SOz & NOxparameters 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 smooth living is lowest here of all the districts of TS. Secondly, in this area more trees have been planted as compared to other cities.

Furlhermore, no air polluting industry is established here not even in a radius of l0 Km of VITS area. The NH is also approximately I kilometre away from VITS, which might be responsible for heavy densitytraffic throughout the year and thus might be causing lot of vehicular emissions as well as a lot of dust emissions due to the movement of vehicular traffic. Therefore, the ambient air quality of VITS Area falls in between moderate to rich quality state. Thc Antllrra Pradesh Pollution Control Board is pondering over the various possibilities to reduce the air pollution for the improvement of ambient air qualitywith respect to AQI is concemed. However, the annual average value of PMt0, SO2, NOx in the ambient air quality of Proddatur falls in the range of 50-62 pglm3,3-5 pglm3, lO-12 pglm3 formost of the months, as such, the graded response action plan to eradicate the problem

AIR QUALITY DETERMINATION:

Satisfactory air quality index (OVERALL=58) in VITS, Proddatur India on dated 22nd February 2021.

Parameter	Result (Range)
NO_2	25.4 µg/m³, AQI 26 Very Good
NO	10.09 µg/m³, AQI 10 Good
O_3	31.49 µg/m³, AQI 31 Good
$PM_{2.5}$	28.13 µg/m³, AQI 28 Good
PM_{10}	77.2 µg/m³, AQI 79 Satisfactory
CO	35.0 µg/m³, AQI 18
Humidity	76.0 %
Barometric Pressure	1014 millibar or hPa
Wind Speed	1.3-2.77 m/s
Wind Direction	28.0013 degrees
Sun Rise	06:32 AM
Sun Set	06:19 PM
Moonrise	01:47 PM
Moonset	02:12 AM

WATER ANALYSIS REPORT OF VITS:

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:

- Alkalianity
- Colour of water
- pH value
- Taste and odor (geosmin,2-Methylisoborneol(MIB),ect.)
- Desslove metals and metalloids (lead,mercury,arsenic,ect.)
- Heavy metals

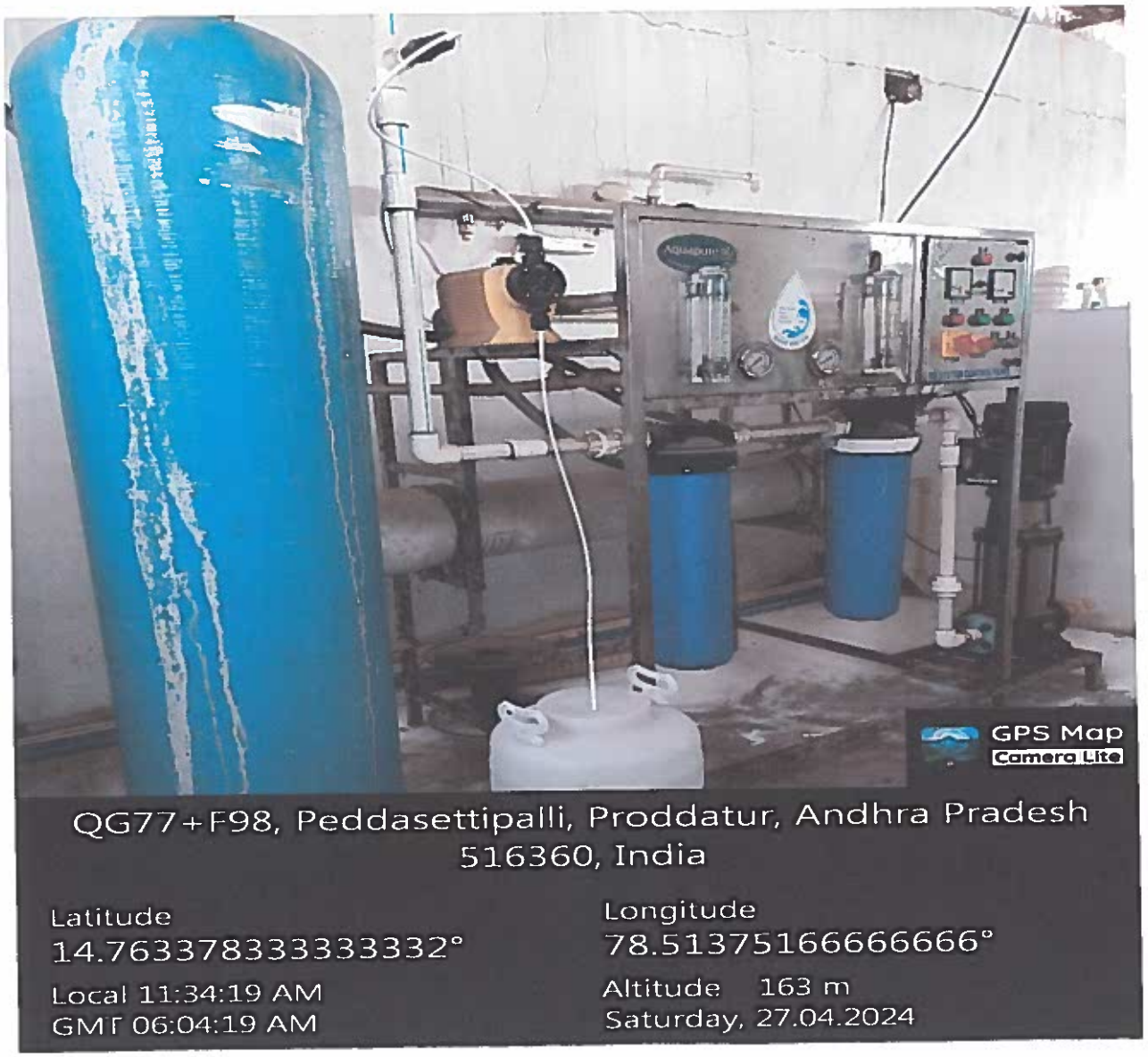
QG77+F98, Peddasettipalli, Proddatur, Andhra Pradesh 516360, India

Latitude
14.763798333333334°

Longitude
78.51360833333334°

Local 11:39:15 AM
GMT 06:09:15 AM

Altitude 163 m
Saturday, 27.04.2024



RO in Vaagdevi Institute of Technology & science , Proddatur in Eastern side

NOISE LEVEL IN THE SURROUNDING OF VITS:

The human ear is constantly being assailed by man-made sounds

- Loudness
- Frequency

from all sides, and there remain few places in populous areas where relative quiet prevails. There are two basic properties of sound: Loudness is the strength of sensation of sound perceived by the individual. It is measured in terms of Decibels. Just audible sound is about l0 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 soundpressure 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 COLLEGE SITE:

The site of the VITS is bounded to the North by 13.428475285251167 to the East, 79.57496659357363 agricultural lands and Jammalamadugu road. Below photo shows the satellite image of the college site.

Aerial View of college campus part 2(source google earth)

MEASUREMENT PROCEDURE

The noise level was recorded at the different Important Locations of VITS. At each spot, the measurements were taken for 60 seconds during day time (6 AM- 6 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 VITS

PLACE	*MEASUREMENTS (Duration in Sec.)*	*MINIMUM (dBA)*	*Maximum (dBA)*	*AVERAGE (dBA)*
Canteen	60	74	90	85
Library	60	51	85	65
Mechanical Dept Area	60	57	84	78
Mechanical Lab	60	45	89	72
CSE Dept Area	60	50	81	73
CSE Lab	60	66	85	76
EEE Dept Area	60	66	87	76
EEE Lab	60	40	87	68
ECE Dept. Area	60	63	82	76
ECE Lab	60	65	85	78
Principal Office	60	35	77	68
Auditorium	60	53	75	71
Workshop	60	66	90	78
Workshop	60	56	86	69
Ground 1	60	59	90	70
Ground 2	60	56	90	68
Generator Room	60	53	89	75
Gymnasium	60	68	82	76
College Front Gate	60	50.7	78.0	71.0
Boys Hostel	60	54	68	62
Girls Hostel	60	52	90	68

Source: Data collected by Third Party Lab in the presence of GMCSPL Auditors. After the study, the measurements of noise have been recorded in and outside of VITS area:
Inside the Campus: 35-90 dBA,
Outside the Campus: 54-93 dBA

WASTE DISPOSAL OF VITS:

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 minirnizing the carbon emissions associated with both disposing of old products and obtaining new ones. VITS adopts environment friendly practices and takes necessary actions such as - energy conservation, waste recycling, carbon neutral etc. The biological reusable wastes are processed as organic manure for the plants available in the college campus and the other solid waste generated in the college carnpus is taken to the community bin of VITS municipality for recycling and disposal.

TRANSPORTATION AT VITS:

Being a largest campus in the region, VITS uses a fleet of buses for transportation of the students & staff from the around locations of Proddatur 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, 70% as much hydrocarbons, and l5oh as much nitrogen oxides per passenger mile as an automobile with a single occupant (Source: Wikipedia)

ELECTRICAL POWER CONSUMPTION AT VITS:

VITS, being one of the largest colleges of Proddatur , consumes on an average 12800 (units)per month of electricity. The authority keeps on replacing the old filament bulbs, CFL bulbs and tube lights by low energy consuming LED bulbs and LED tubes 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, VITS has gone a step further by putting that theory into practice. The college has installed five sets of solar panels, on the roof of S block (EEE), S (ECE) block, Block M (First Year), VITS with the installation of 500 KW solar roof top plant in collaboration with M/s Jisnu Solar Pvt Ltd. was able to offset 5lYo of its energy usage from the state grid thus moving towards a more reliable and greener option and reducing its carbon foot print.

Electrical consumption

Sl.No.	Bill Month	CMD	RMD	BMD	RKVAH	Billed Units	Bill Amount	Payments
1	29-July-21	190	152	72200	12800	3800	107269	107269
2	30-June-21	190	152	72200	19360	9280	149475	149475
3	31-May-21	190	152	90250	47680	41600	500253	500253
4	30-April-21	190	152	76000	39360	27360	299071	299071
5	31-March-21	190	152	73200	26200	19020	239725	239725
6	28-Feb-21	190	152	71200	14020	11050	138277	138277
7	31-Jan-21	190	152	74000	11080	24075	273645	273645
8	31-Dec-20	190	152	66000	13040	29162	314362	314362
9	30-Nov-20	190	152	67020	16060	28182	314362	314362
10	31-Oct-20	190	152	72200	14560	3800	106746	106746
11	30-Sep-20	190	152	72200	6240	3800	107940	107940
12	31-Aug-20	190	152	72200	7680	3800	290320	290320
13	31-July-2(	190	152	72200	12800	12800	684603	684603
14	30-Jun-20	190	152	72200	13740	8640	110338	110338


QG77+F98, Peddasettipalli, Proddatur, Andhra Pradesh 516360, India
Latitude
14.763798333333334°
Local 11:39:15 AM
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Longitude
78.51360833333334°
Altitude 163 m
Saturday, 27.04.2024

Percentage of annual lighting power requirements met through LED bulbs
Response: 56.08%

Annual lighting power requirement met through LED bulbs (in KWH)
Response: 127.708kWh

Annual lighting power requirement (excluding LED)(in KWH)
Response: 10628.8

Total Annual Lighting Power Requirements: 18240 kWh/year

Total Lighting Requirements	Percentage Lighting throughLED Bulbs	Percentage Lighting through other sources
18240 kWh/year	56.08%	44.92%

EXPENDITURE ON GREEN INITIATIVES DURING THE LAST FTVE YEARS:

Financial Year	Gardening & lawn Work (Tractor running & Maintenance) Rs.	Total Rs.
2020-21	961779	961779
2019-20	1412203	1412203
2018-19	1348909	1348909
2017-18	1234954	1234954
2016-17	2022113	2022113