

GREEN AUDIT REPORT 2021

Siddharth Institute of Engineering & Technology
(Autonomous)



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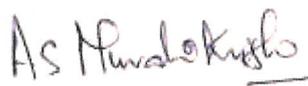
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INTRODUCTION:

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 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 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, 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 SIETK 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 SIETK 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 COLLEGE:

We take the pleasure to apprise you that, Siddharth Institute of Engineering & Technology (Autonomous), is established in 2001, under the ambit of Jaya Education Society, Puttur. The Institution is approved by AICTE, New Delhi and affiliated to JNT University, Ananthapuram. The institution has Autonomous Status by Govt. of India for Engineering, MBA and MCA Programs. The college also is accredited by National Board of Accreditation (NBA) and NAAC with 'A' Grade and certified with ISO 9001:2015. The institution is maintained under Siddharth Group of Institutions by Dr. K. Ashok Raju, 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

- To emerge as one of the premier institutions through excellence in education and research, producing globally competent and ethically strong professionals and entrepreneurs

OUR MISSION

- Imparting high-quality technical and management education through the state-of-the-art resources
- Creating an eco-system to conduct independent and collaborative research for the betterment of the society
- Promoting entrepreneurial skills and inculcating ethics for the socio-economic development of the nation

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 CO₂ emission, energy and water use, while creating atmosphere where students can learn and be healthy.

LAND USE ANALYSIS, SIETK (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 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 Prosoftware.

DATA PROCESSING AND ANALYSIS

Land use map preparation is executed through the following steps:

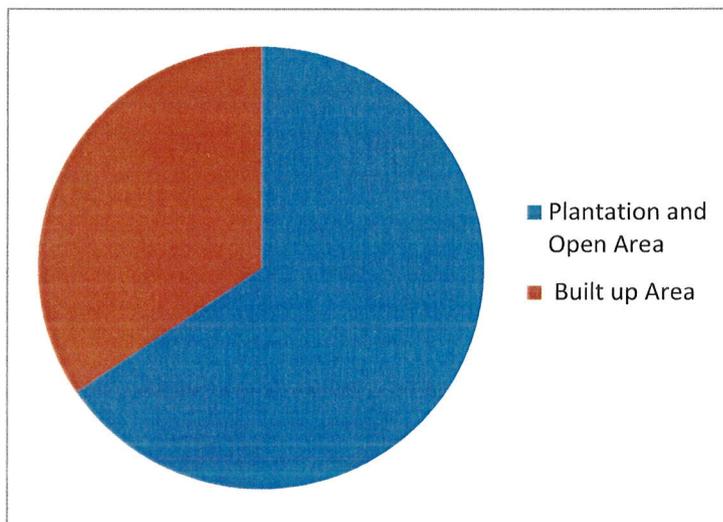
Acquisition of data (Location: 13.42761° N, 79.57364° E), Geo-coding and Geo referencing of satellite imageries by extracting the ground control points. Supervised classification was carried out with the aid of ground truth data collected during field survey. Scanning and digitization of maps and editing 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 SIETK with a view to detect the land consumption in the built-up land area using both remote sensing and GIS techniques.

LAND USE DATA OF SIETK, PUTTUR

<i>CATEGORIES OF LAND USE</i>	<i>AREA (in Acres)</i>
PLANTATION AND OPEN AREA	19
BUILT UP AREA (INCLUDE ROADS)	10
TOTAL AREA	29

Land Use Analysis, SIETK



LAND USE (BUILT UP AREA) ANALYSIS:

The built up area of 35% consists of the following regions as stated below for land consumption in built up area of SIETK:

The western region of SIETK is densely built up having A Block (EEE and Examination Center) B block with Principal office, Administrative Office and Electronic and communication Engineering Department (ECE). C block is totally allocated to first year students (First Year Block), D Block allocated for Mechanical department placed in south side. E Block comprises of Auditorium, CSE, CSIT, Civil, Agricultural Engineering, MBA and MCA departments. On the Backside of Auditorium Gymnasium center is established. Boys’ hostel is constructed in the Eastern side and on the North side playground and sports complex do exist. The Northwest region consists of Mechanical Workshops, Girls Hostel. Canteen is established in the Southeastern region.

Table: Area occupied by various buildings at SIETK,

Level	Room Type	Room Id / Name	Area of Room in sq m	Building Name	Readiness of Flooring	Readiness of Wall & Painting	Readiness of Electrification & Lighting
Instructional area							
UG	LABORATORY	102	39.15	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	104	80.3	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	106	86.25	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	107	104.5	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	109	220	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	303	79.2	A-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	305	55.5	A-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	306	55.5	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	307	67.16	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	308	66.42	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	309	66.42	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	310	67.89	A-BLOCK	Ready	Ready	Ready
UG	SEMINAR HALL	401	220	A-BLOCK	Ready	Ready	Ready
UG	SEMINAR HALL	402	220	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	403	79.2	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	405	106.58	A-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	101	69.12	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	101	66.24	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	102	66.59	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	102	69.12	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	103	66.59	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	103	69.12	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	105	67.2	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	106	67.2	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	110	71.2	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	112	71.2	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	113	71.2	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	114	67.32	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	115	67.32	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	201	71.2	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	201	69.12	AUDITORIUM	Ready	Ready	Ready

UG	CLASS ROOM	202	71.2	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	202	69.12	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	203	69.12	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	204	67.58	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	205	67.58	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	206	67.58	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	217	109.76	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	218	112	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	219	201.14	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	301	71.2	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	301	69.12	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	302	71.2	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	1	79.9	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	2	79.9	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	3	79.9	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	4	79.9	AUDITORIUM	Ready	Ready	Ready
PG	LABORATORY	5	79.9	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	6	79.9	AUDITORIUM	Ready	Ready	Ready
UG	ENGLISH LAB	10	79.9	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	302	69.12	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	303	71.2	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	303	67.58	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	305	67.58	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	306	67.58	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	110	68.08	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	202	80.3	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	203	81.4	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	204	66.6	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	205	66.6	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	208	66.6	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	209	79.75	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	301	81.4	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	302	66.6	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	303	66.6	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	306	66.6	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	401	121	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	402	66.6	B-BLOCK	Ready	Ready	Ready

UG	CLASS ROOM	403	66.6	B-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	404	66.6	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	405	115	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	2021	68.33	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4011	121	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4051	115	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4052	128.57	B-BLOCK	Ready	Ready	Ready
UG	PHYSICS LAB (I YEAR)	201	106.58	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	202	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	204	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	205	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	206	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	208	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	209	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	210	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	301	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	303	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	304	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	305	66.42	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	307	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	308	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	309	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	309	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	311	33.12	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	401	66.38	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	402	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	403	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	404	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	405	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	406	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	3011	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	3012	66.42	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4011	66.38	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4012	66.38	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	101	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	102	72.8	D-BLOCK	Ready	Ready	Ready
UG	LABORATORY	103	72.8	D-BLOCK	Ready	Ready	Ready

UG	CLASS ROOM	104	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	201	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	202	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	203	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	204	72.8	D-BLOCK	Ready	Ready	Ready
UG	DRAWING HALL	301	152.08	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	302	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	303	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	304	72.8	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	305	72.8	D-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	306	53.69	D-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	307	53.69	D-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	402	72.8	D-BLOCK	Ready	Ready	Ready
UG	SEMINAR HALL	403	182.91	D-BLOCK	Ready	Ready	Ready
UG	DRAWING HALL	404	152.08	D-BLOCK	Ready	Ready	Ready
UG	DRAWING HALL	405	152.08	D-BLOCK	Ready	Ready	Ready
UG	LABORATORY	101	72.93	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	102	72.93	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	103	79.07	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	104	76.28	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	105	76.28	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	106	72.93	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	107	72.93	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	108	114.47	WORKSHOP	Ready	Ready	Ready
UG	LAB FOR I YEAR (WORKSHOP)	109	203	WORKSHOP	Ready	Ready	Ready
UG	COMPUTER CENTER	AU201	300	AUDITORIUM	Ready	Ready	Ready
PG	COMPUTER CENTER	AU202	100	AUDITORIUM	Ready	Ready	Ready
DIP	COMPUTER CENTER	AU203	90	AUDITORIUM	Ready	Ready	Ready
UG	TUTORIAL ROOM	A-401	90	A-BLOCK	Ready	Ready	Ready
UG	TUTORIAL ROOM	B-403	90	B-BLOCK	Ready	Ready	Ready
UG	TUTORIAL ROOM	C-306	90	C-BLOCK	Ready	Ready	Ready
UG	TUTORIAL ROOM	D-206	90	D-BLOCK	Ready	Ready	Ready
UG	ADDITIONAL WORKSHOP	W-101	450	WORKSHOP	Ready	Ready	Ready
UG/PG	ADDITIONAL WORKSHOP	W-102	2205	WORKSHOP	Ready	Ready	Ready
UG	LABORATORY	A-111	72.93	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	B-112	72.93	B-BLOCK	Ready	Ready	Ready

UG	LABORATORY	B-106	79.07	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	C-306	76.28	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	B-402	76.28	B-BLOCK	Ready	Ready	Ready
UG	LABORATORY	AU205	72.93	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	AU206	72.93	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	AU207	114.47	AUDITORIUM	Ready	Ready	Ready
UG	CLASS ROOM	305	66.42	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	307	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	308	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	309	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	309	33.12	C-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	311	33.12	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	401	66.38	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	402	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	403	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	404	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	405	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	406	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	3011	66.42	C-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	3012	66.42	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4011	66.38	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	4012	66.38	C-BLOCK	Ready	Ready	Ready
UG	LABORATORY	102	39.15	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	104	80.3	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	106	86.25	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	107	104.5	A-BLOCK	Ready	Ready	Ready
UG	LABORATORY	109	220	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	303	79.2	A-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	305	55.5	A-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	306	55.5	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	307	67.16	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	308	66.42	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	309	66.42	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	310	67.89	A-BLOCK	Ready	Ready	Ready
UG	SEMINAR HALL	401	220	A-BLOCK	Ready	Ready	Ready
UG	SEMINAR HALL	402	220	A-BLOCK	Ready	Ready	Ready
UG	CLASS ROOM	403	79.2	A-BLOCK	Ready	Ready	Ready

UG	CLASS ROOM	405	106.58	A-BLOCK	Ready	Ready	Ready
PG	CLASS ROOM	101	69.12	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	101	66.24	AUDITORIUM	Ready	Ready	Ready
UG	LABORATORY	102	66.59	AUDITORIUM	Ready	Ready	Ready
PG	CLASS ROOM	102	69.12	AUDITORIUM	Ready	Ready	Ready
Administrative area							
UG& PG	Secretary Room	101	40	A-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	103	12	A-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	105	11	A-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	108	60	A-BLOCK	Ready	Ready	Ready
UG& PG	Examination Control Office	201	984	A-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	301	110	A-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	302	11	A-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	304	11	A-BLOCK	Ready	Ready	Ready
UG& PG	Store Room	308	120	A-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	404	11	A-BLOCK	Ready	Ready	Ready
UG& PG	Chairman	101	80	B-BLOCK	Ready	Ready	Ready
UG& PG	PS to Chairman	102	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Board Room	103	80	B-BLOCK	Ready	Ready	Ready
UG& PG	Principal Room	104	60	B-BLOCK	Ready	Ready	Ready
UG& PG	PS to Principal Room	105	15	B-BLOCK	Ready	Ready	Ready
UG& PG	Strong Room	107	30	B-BLOCK	Ready	Ready	Ready
UG& PG	Accounts & Administration Office	116	150	B-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	103	12	B-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	211	50	B-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	213	80	B-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	105	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Faculty Room	109	60	AUDITORIUM	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	204	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Faculty Room	202	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	206	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Faculty Room	205	60	AUDITORIUM	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	211	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Faculty Room	302	100	AUDITORIUM	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	306	10	AUDITORIUM	Ready	Ready	Ready
UG& PG	Faculty Room	207	60	AUDITORIUM	Ready	Ready	Ready

UG& PG	Cabin for Head of Dept	204	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Faculty Room	311	60	AUDITORIUM	Ready	Ready	Ready
UG& PG	Stationery Room	106	80	AUDITORIUM	Ready	Ready	Ready
UG& PG	Store Room (all)	105	200	AUDITORIUM	Ready	Ready	Ready
UG& PG	Cafeteria	110	900	AUDITORIUM	Ready	Ready	Ready
UG& PG	Placement Office	211	1102	AUDITORIUM	Ready	Ready	Ready
UG& PG	R&D	307	90	C-BLOCK	Ready	Ready	Ready
UG& PG	Women Empowerment Cell	105	50	C-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	108	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	209	80	C-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	304	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	208	80	C-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	205	60	C-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	206	160	C-BLOCK	Ready	Ready	Ready
UG& PG	Cabin for Head of Dept	212	40	C-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	213	140	C-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	208	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Faculty Room	218	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Security	G-1	80	SHED	Ready	Ready	Ready
Amenities area							
UG& PG	Boys common room	106	60	A-BLOCK	Ready	Ready	Ready
UG& PG	Girls common room	216	60	B-BLOCK	Ready	Ready	Ready
UG& PG	Boys common room	307	60	C-BLOCK	Ready	Ready	Ready
UG& PG	Girls common room	311	60	D-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	111	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	112	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	211	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	212	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	311	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	312	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	411	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	412	20	A-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	108	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	109	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	208	20	B-BLOCK	Ready	Ready	Ready

UG& PG	Toilet for Girls	209	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	308	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	309	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	408	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	409	20	B-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	111	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	112	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	212	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	213	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	314	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	315	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	413	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	414	20	C-BLOCK	Ready	Ready	Ready
UG& PG	Canteen	104	750	D-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	105	20	D-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	204	20	D-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Boys	304	20	D-BLOCK	Ready	Ready	Ready
UG& PG	Toilet for Girls	404	20	D-BLOCK	Ready	Ready	Ready
UG& PG	Auditorium	106	2672	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Boys	111	40	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Girls	112	32	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Girls	211	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Boys	212	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Girls	311	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Boys	312	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Girls	411	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Boys	412	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Girls	108	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Boys	119	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Toilet for Girls	120	20	AUDITORIUM	Ready	Ready	Ready
UG& PG	Girls hostel		3759		Ready	Ready	Ready
UG& PG	Boys hostel		3759		Ready	Ready	Ready
UG& PG	New Girls hostel		5438		Ready	Ready	Ready
UG& PG	New boys hostel		5438		Ready	Ready	Ready
UG& PG	auditorium		11680		Ready	Ready	Ready

Access and Circulation Area							
UG& PG	other common area		9914	ALL BLOCKS	Ready	Ready	Ready
UG& PG	Gym		459.18	A-BLOCK	Ready	Ready	Ready
UG& PG	Gym		240.5	B-BLOCK	Ready	Ready	Ready
UG& PG	Yoga center		467.57	C-BLOCK	Ready	Ready	Ready
UG& PG	Sports Club		452.75	D-BLOCK	Ready	Ready	Ready
UG& PG	AUDITORIUM		4700	AUDITORIUM	Ready	Ready	Ready

Consolidated Area Statement

Consolidated Area Statement for Existing & Proposed Courses

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

FINDINGS:

SIETK, which was established in the year 2001, 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 that generates a 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 Puttur, near to Tirupati. It has an ideal geographical location with the proximity to the important cities of the region i.e. Karnataka, Andhra Pradesh.

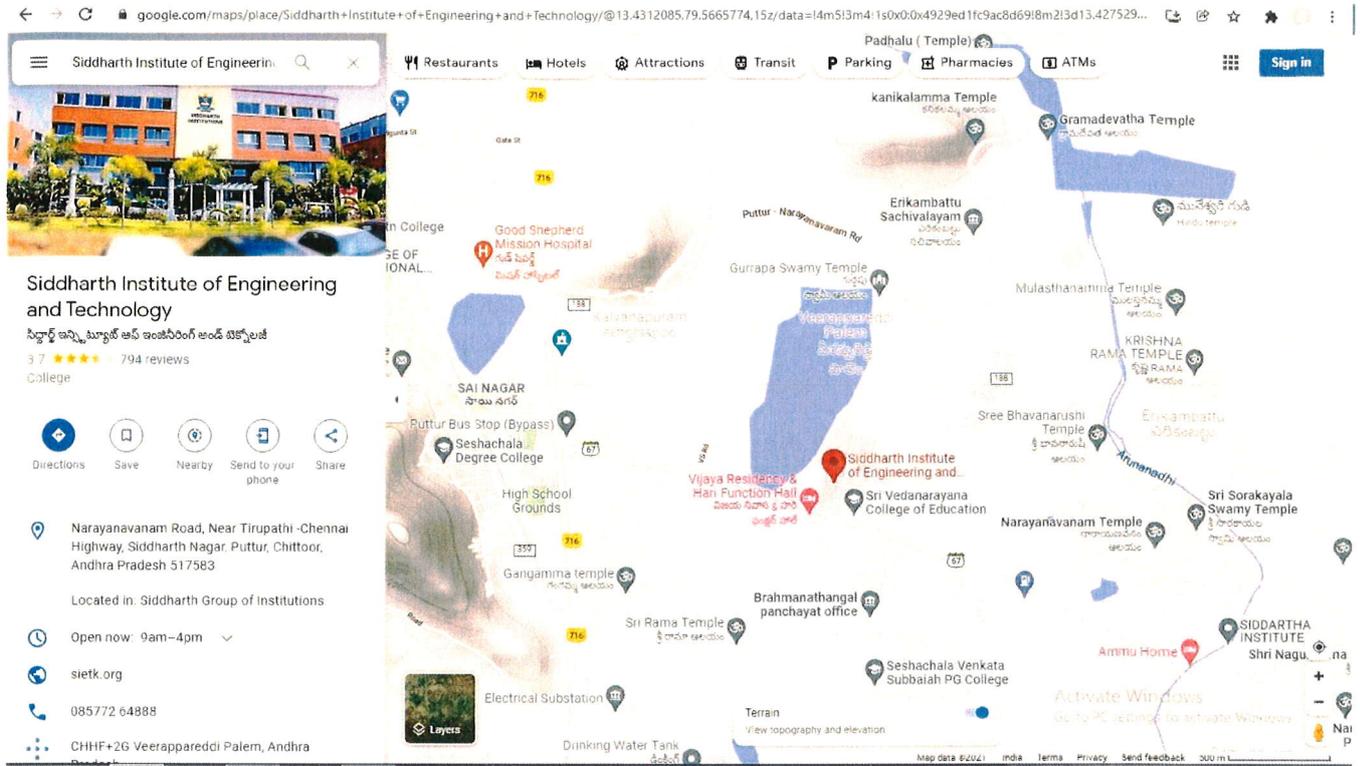


Photo 1: Map of College Campus

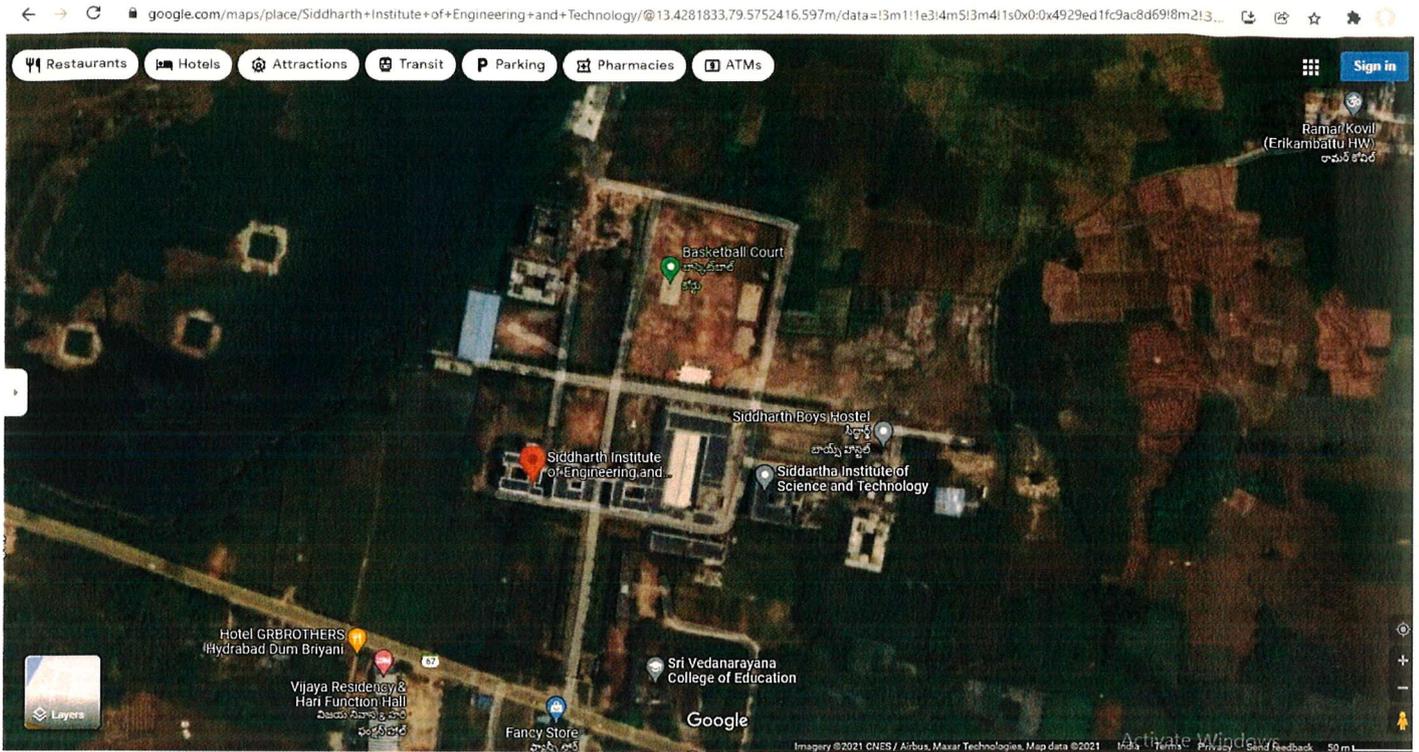
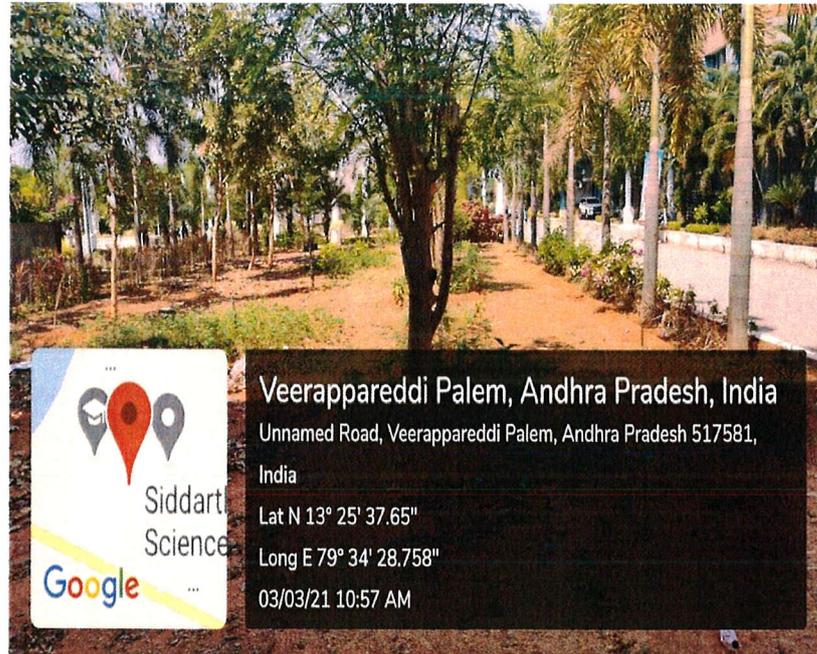


Photo 2: Aerial View of College Campus Part 2 (Source Google Earth)

TREE DIVERSITY OF SIETK, PUTTUR:

SIETK is within the geo-position between latitude 13.42761° N and longitude 79.57364° E in Puttur, Chittoor district, Andhra Pradesh, India. It encompasses an area of about 10 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 species of birds are dependent on these trees mainly for food and shelter. Nectar of flowers and plants is a favorite 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 colors. 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. They also remind us the glorious history of SIETK. 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. The following are the tree species with whom we are being attached-



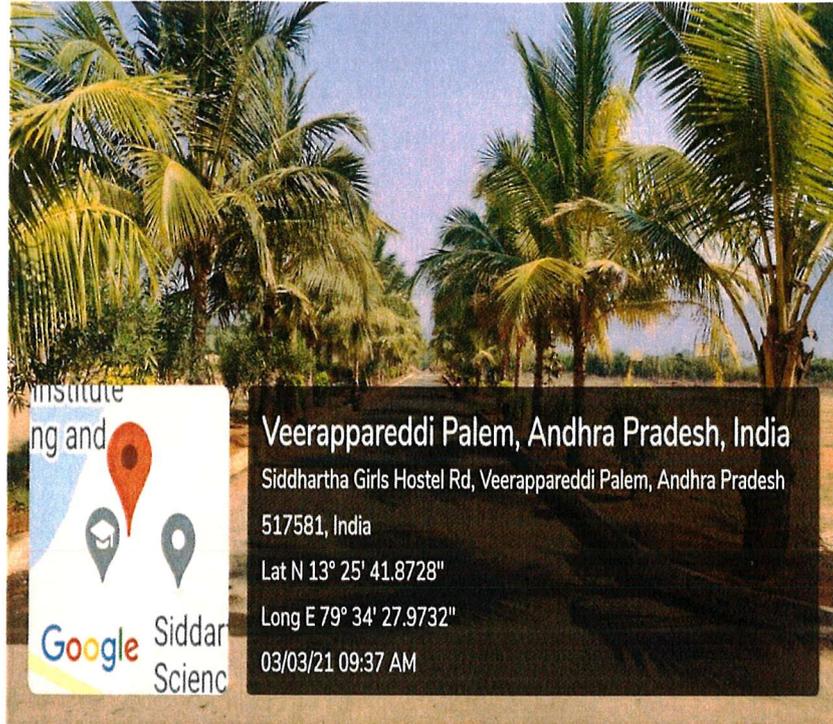


Table: List of tree species of SIETK, PUTTUR

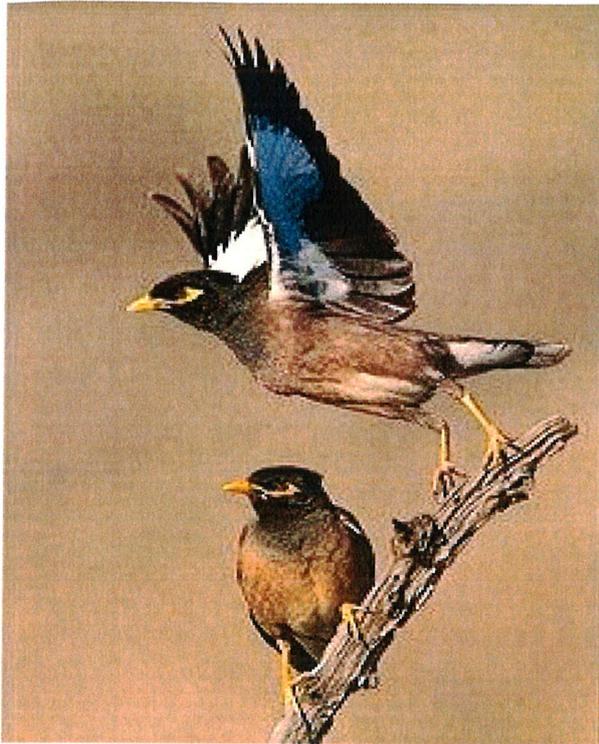
S.No.	Botanical Name	Family	Common Name	Total
1	Mangifera indica	Anacardiaceae	Mango	1
2	Alstonia Scholaris	Apocynaceae	Alstonia	45
3	Tabernaemont anadivaricata	Apocynaceae	Crape jasmine	15
4	Araucaria heterophylla	Araucariaceae	Christmas Tree	5
5	Hyophorbe lagenicaulis	Arecaceae	Bottle Palm	108
6	Roystonea regia	Arecaceae	Cuban royal palm	23
7	Phoenix sylvestris	Arecaceae	Badela Palm	3
8	Platycladus orientalis	Cupressaceae	Oriental thuja	15
9	Cocos nucifera	Arecaceae	Coconut	100
10	Psidium guajava	Myrtaceae	Guava	2
11	Terminalia catappa	Combretaceae	Tropical almond	20
12	Bougainvillea species	Nyctaginaceae	Bougainvillea	30
13	Azadirachta indica	Meliaceae	Neem	5
14	Syzygium cumini	Myrtaceae	Indian blackberry	2
15	Hibiscus rosa-sinensis	Malvaceae	Hibiscus	20
16	Nerium oleander	Apocynaceae	oleander or nerium	20
17	Plumeria sanalisp.	Apocynaceae	Plumeria	80
18	Ixora coccinea	Rubiaceae	Jungle geranium	50
19	Musa sapientum	Musaceae	Banana	4
20	Moringa oleifera	Moringaceae	Drum stick	2
21	Ficus religiosa	Moraceae	Peepal	2
22	Syzygium cumini	Myrtaceae	Jamun	15
23	Psidium	Myrtaceae	Gauva	6
24	Cassia fistula	Fabaceae	Golden shower tree	20
Total				593

FAUNAL DIVERSITY IN SIETK CAMPUS:

SIETK is located in Puttur, District of Chittoor, Andhra Pradesh, India. The highest temperature is recorded 42⁰ 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 Eastern Ghats. The climatic condition of Puttur – Chittoor district as a whole and SIETK in particular is very suitable for a wide variety of flora and fauna to support its rich biodiversity. The faunal Diversity of SIETK 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 Splendens
5.	Cuckoo	Cuculidae
6.	Snake	Naja Naja
7.	Yellow Wasp	Ropalidia Marginata
8.	Butter Fly	Danaus Genutia
9.	Common Woodshrike	Tephrodornis 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



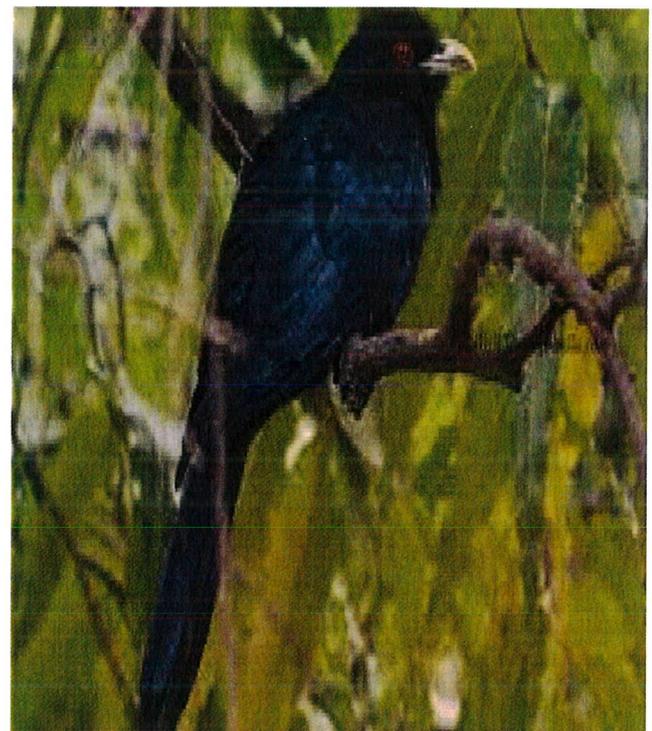
Common Myna(AcridotheresTristic)



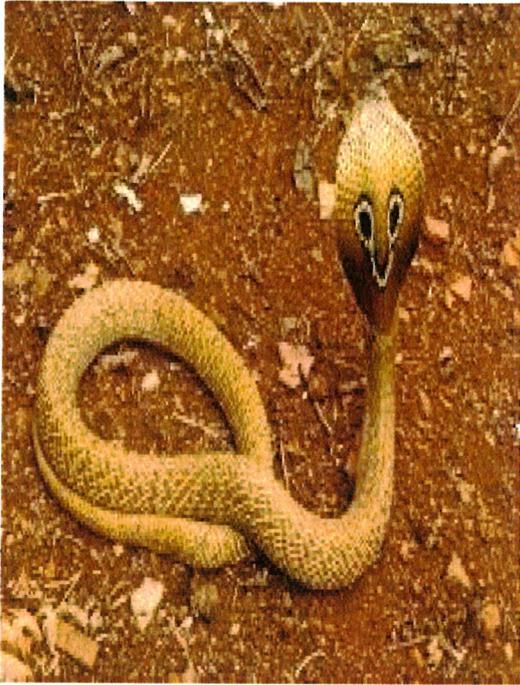
House Sparrow (PasserDomesticus)



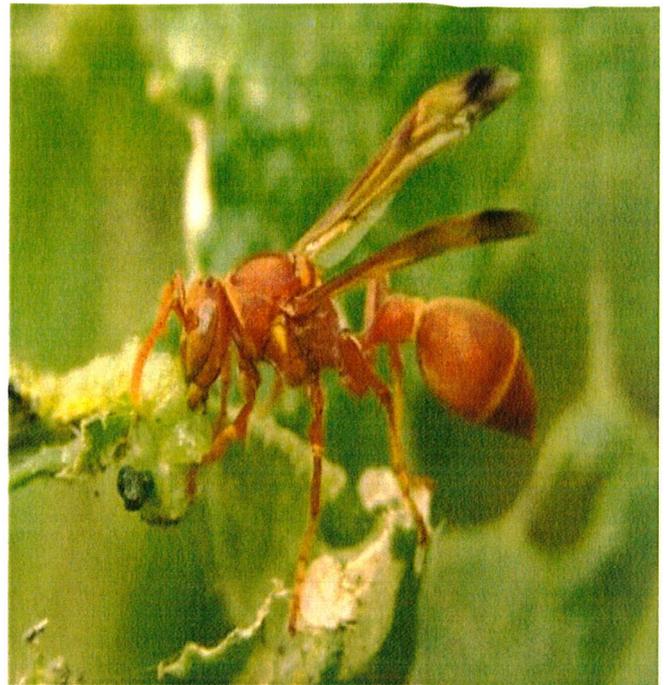
House Crow(Corvus Splendens)



Cuckoo(Cuculidae)



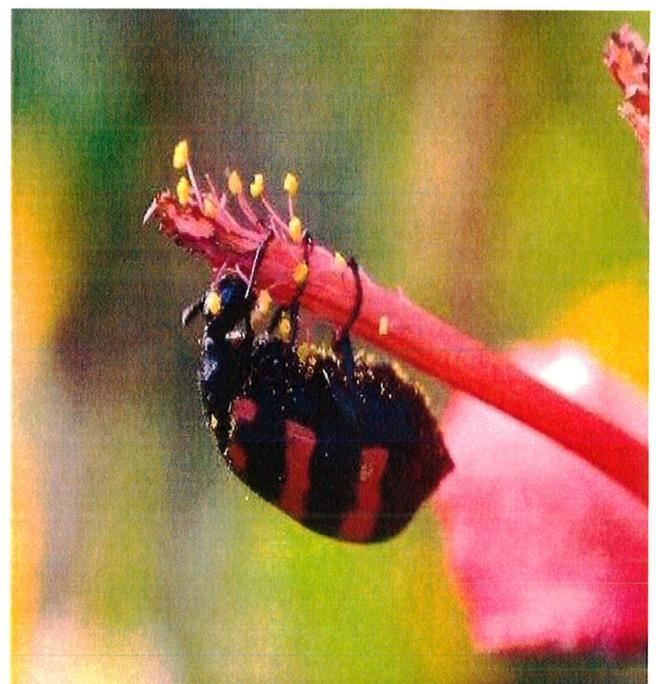
Snake (Naja Naja)



Yellow Wasp (Ropalidia Marginata)



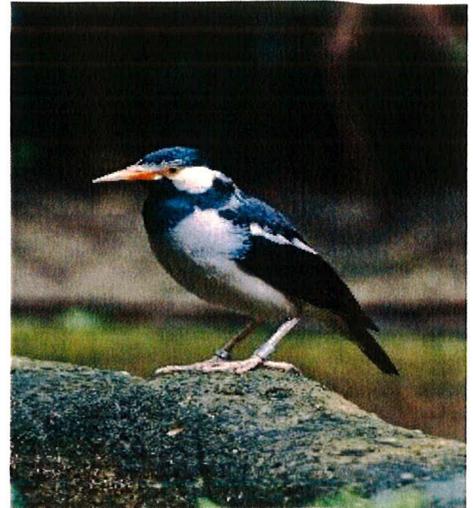
Butter Fly (Danaus Genutia)



Beetle insect on a hibiscus flower



Common Woodshrike (Tephrodornis Pondicerianus)



Pied Myna (Gracupica Contra)



Red-Vented Bulbul (Pycnonotus Cafer)



Skylark (Aluda Gulgula)



Slender Skimmer (Orthetrum Sabina)



Tamias striatus

WEATHER DATA OF SIETK: Station: SIETK, Puttur (INDIA)

Location: 13.427524° N, 79.574701° E

In SIETK, the climate is warm and temperate. The summers are less rainier than the winters in SIETK. The average annual temperature in SIETK 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.

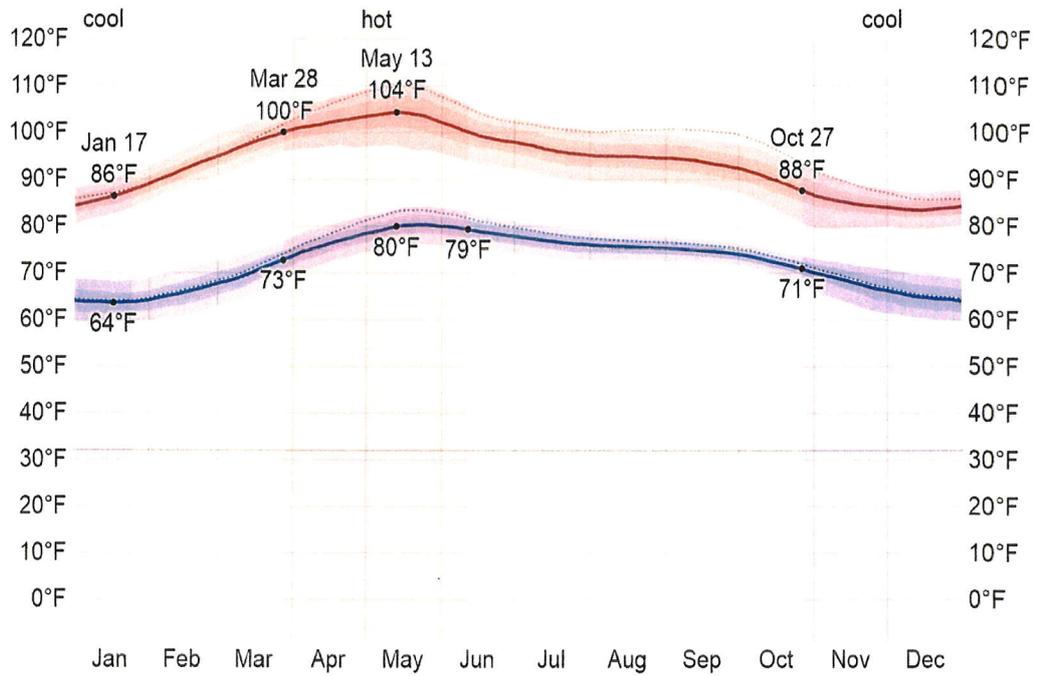
WEATHER DATA MONTH WISE SIETK

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 SIETK are 13.427524° N, 79.574701° E. The city has an average altitude of 509 feet or 155.143 meters from the average sea level. The erstwhile land of SIETK was very much 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 and from mid of August till December one experiences the transitional weather.

CLIMATE GRAPH MONTH WISE SIETK



AIR QUALITY IN SIETK:

The ambient air quality data for SIETK for the last one year shows that there are very less polluted particles in ambient air; AQI for SO₂ & NO_x 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 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. Furthermore, no air polluting industry is established here not even in a radius of 10 Km of SIETK area. The NH is also approximately 1 kilometre away from SIETK, which might be responsible for heavy density traffic 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 SIETK Area falls in between moderate to rich quality state. The Andhra Pradesh Pollution Control Board is pondering over the various possibilities to reduce the air pollution for the improvement of ambient air quality with respect to AQI is concerned. However, the annual average value of PM₁₀, SO₂, NO_x in the ambient air quality of Puttur falls in the range of 50-62 µg/m³, 3-5 µg/m³, 10-12 µg/m³ 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 SIETK, Puttur, India on dated 22nd February 2021:

Parameter	Result (Range)
NO ₂	25.4 µg/m ³ , AQI 26 Very Good
NO	10.09 µg/m ³ , AQI 10 Good
O ₃	31.49 µg/m ³ , AQI 31 Good
PM _{2.5}	28.13 µg/m ³ , AQI 28 Good
PM ₁₀	77.2 µg/m ³ , AQI 79 S a t i s f a c t o r y
CO	35.0 µg/m ³ , 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 SIETK:

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.

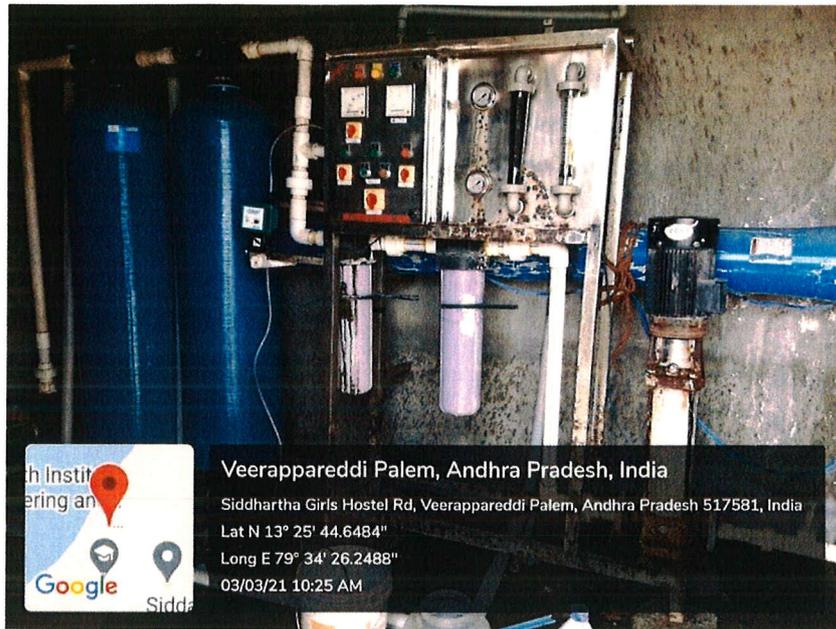
The parameters for water quality are determined by the intended use. Work in the area of water quality tends to be focused on water that is treated for human consumption, or in the environment.

Drinking water indicators:

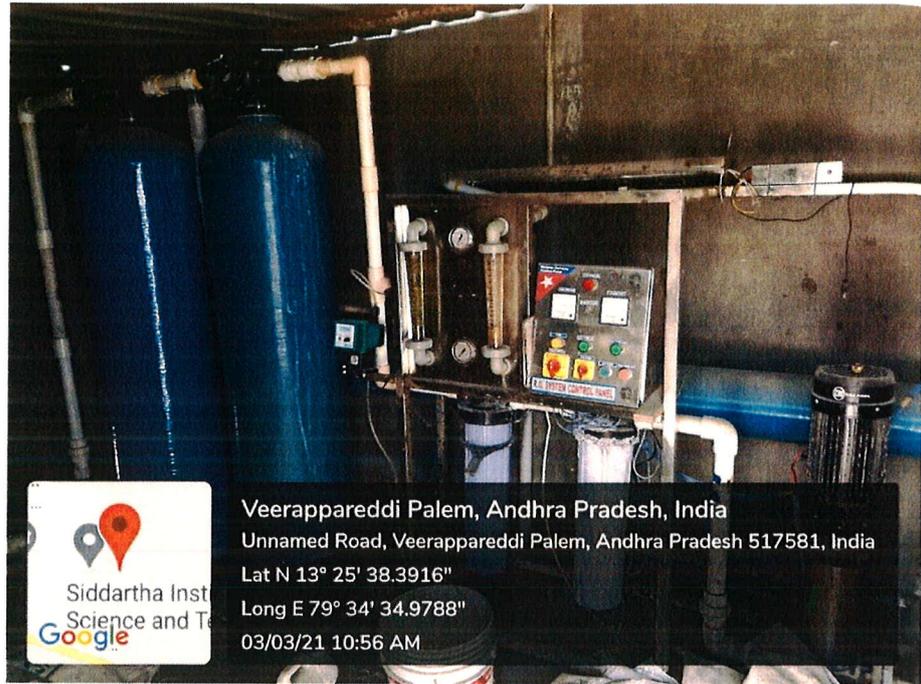
The following is a list of indicators often measured by situational category:

- 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





RO in Siddharth Institute of Engineering & Technology, Puttur in Eastern side



RO in Siddharth Institute of Engineering & Technology in Northeastern side

NOISE LEVEL IN THE SURROUNDING OF SIETK:

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 are two basic 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.

Noise Test

Noise Test

54

The highest dB:61 dB

The average dB:52 dB

The lowest dB:27 dB

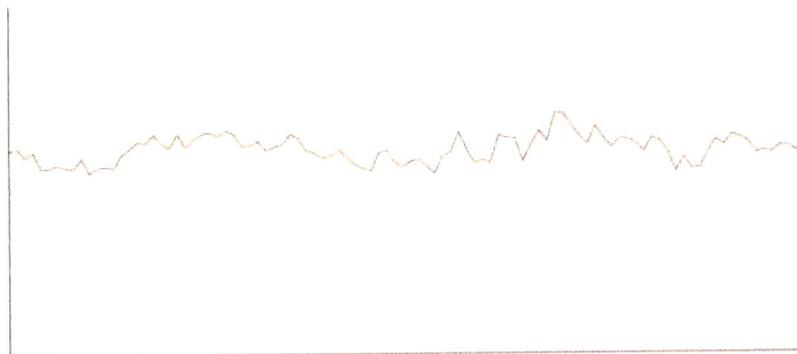


Figure: Noise Measurement by Noise Test Pro App

DESCRIPTION OF THE COLLEGE SITE

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

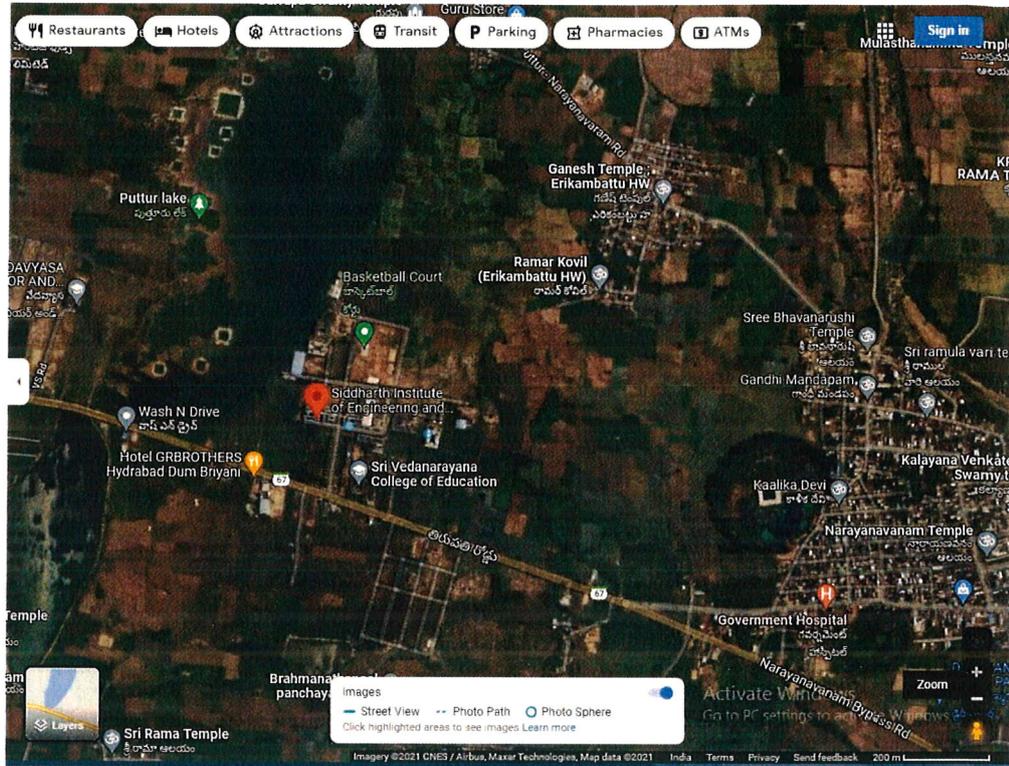


Photo 2: Aerial View of College Campus Part 2 (Source Google Earth)

MEASUREMENT PROCEDURE

The noise level was recorded at the different Important Locations of SIETK. 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 SIETK:

<i>PLACE</i>	<i>MEASUREMENTS (Duration in Sec.)</i>	<i>MINIMUM (dBA)</i>	<i>Maximum (dBA)</i>	<i>AVERAGE (dBA)</i>
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 SIETK area:

Inside the Campus: 35-90 dBA,
 Outside the Campus: 54-93 dBA

WASTE DISPOSAL OF SIETK:

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.

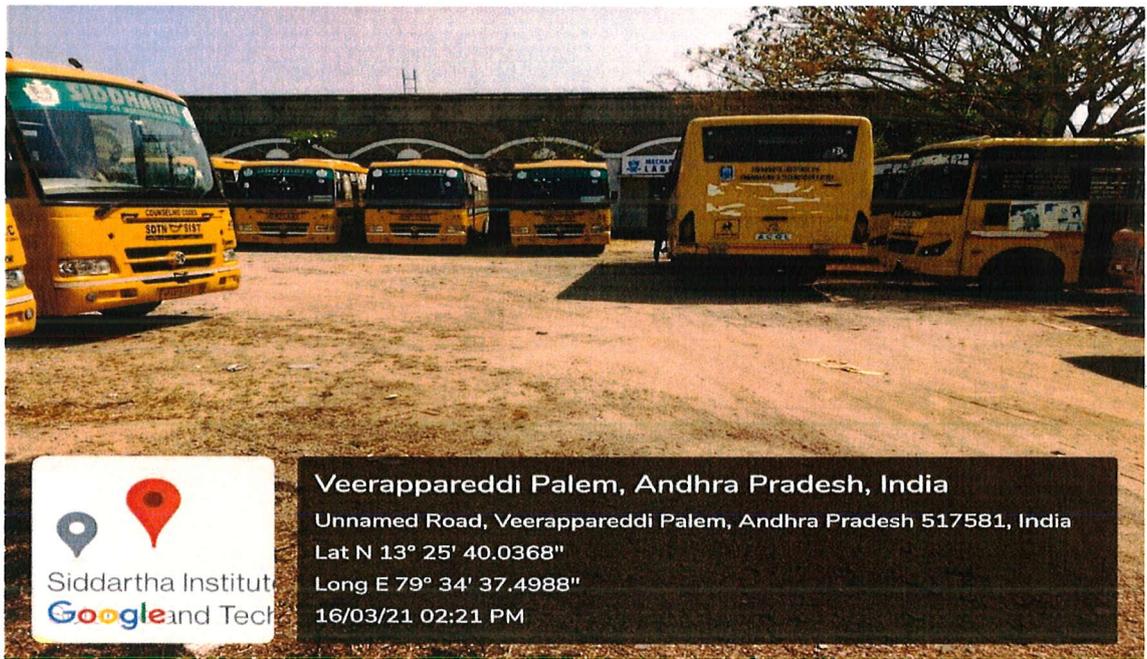
With smart initiatives like “Think Green Campus Model”, waste management is helping colleges and universities to achieve a higher level of environmental performance. By reusing or recycling we are contributing to the conservation of natural resources, saving energy, helping to protect the environment, 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. SIETK 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 campus is taken to the community bin of SIETK municipality for recycling and disposal.



TRANSPORTATION AT SIETK:

Being a largest campus in the region, SIETK uses a fleet of buses for transportation of the students & staff from the around locations of Puttur. 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 a single occupant (Source: Wikipedia).

College Bus Picture:



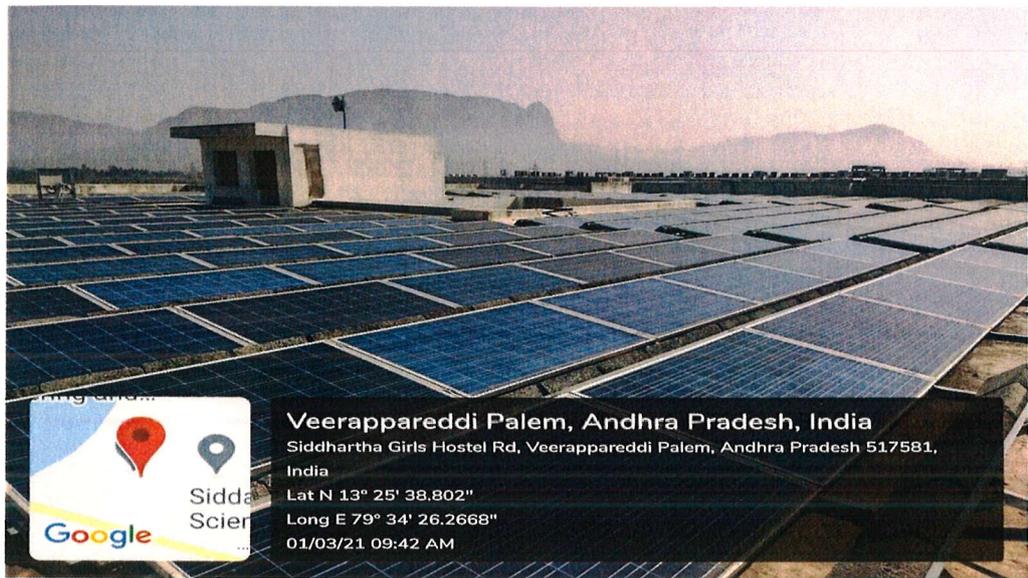
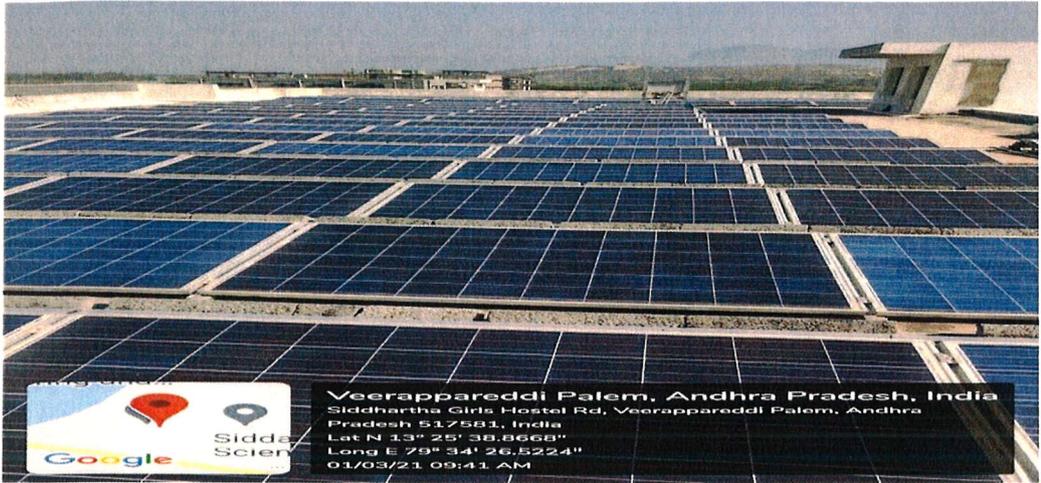
ELECTRICAL POWER CONSUMPTION AT SIETK:

SIETK, being one of the largest colleges of Puttur, 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, SIETK has gone a step further by putting that theory into practice. The college has installed five sets of solar panels, on the roof of A block (EEE), B (ECE) block, Block C (First Year), Auditorium block and D Block (Mechanical). SIETK with the installation of 500 KW solar rooftop plant in collaboration with M/s Jisnu Solar Pvt Ltd. was able to offset 51% of its energy usage from the state grid thus moving towards a more reliable and greener option and reducing its carbon footprint.

Electrical consumption details

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-20	190	152	72200	12800	12800	684603	684603
14	30-Jun-20	190	152	72200	13740	8640	110338	110338



Percentage of annual lighting power requirements met through LED bulbs

Response: 56.08%

Annual lighting power requirement met through LED bulbs (in KWH)

Response: 127.708 kWh

Annual lighting power requirement (excluding LED)(in KWH)

Response: 10628.8

Total Annual Lighting Power Requirements = 18240 kWh/year

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

EXPENDITURE ON GREEN INITIATIVES DURING THE LAST FIVE 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