

# **ENVIRONMENT AND GREEN AUDIT REPORT**



***Lakireddy Bali Reddy College of Engineering***

***(Autonomous)***

***Mylavaram, Krishna Dist,  
Andhra Pradesh – 521 230***

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**COMMUNICATION**

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<b><i>Environment and Green Audit Report</i></b>	
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### *APPRECIATION*

*I appreciate the genuine patronage of the management of Lakireddy Bali Reddy College of Engineering with regard to environmental issues. I sincerely thank Dr. K, Appa Rao, Principal for entrusting the environmental auditing task to my team. Also, I appreciate the sincere efforts of the Audit committee members, Dr. V. Rama Krishna, Dr. Shaheda Niloufer, V. Bhagya Lakshmi and K, Harish Kumar, who have readily shared the required data as and when needed. This study would not have shaped up so well without their help.*

*The environmental concern of the college management and its commitment to maintaining environmental sustainability in the campus is praiseworthy.*

*I once again thank each and every one, directly or indirectly involved in this task,*

*Finally, I look forward to many more years of fruitful association with the college.*

*Dr. A V V S Swamy*

## **1. INTRODUCTION**

*Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of various components of environmental diversity at an institute. It aims to analyze the prevailing environmental practices within and outside the concerned institution, thereby contributing to an eco-friendly atmosphere. Green audit provides a reliable blueprint for a sustainable allocation of various resources viz., energy, water or other resources at an institute. Such findings provide vital inputs to the administrators to incorporate suitable changes or reinforcements, thereby ensuring optimum utilization of such resources at minimal environmental cost/damage. It helps an institute to promote environmental awareness, healthy living, and value-based social and academic environment. It provides staff and students keen insights into environmental issues and better understanding of the impact of Green measures on the campus. The green audit findings validate the efforts of the institution and its various stakeholders towards building a sustainable future. As environmental sustainability is the need of the hour, the role of higher educational institutions like this institute in reduction of global warming with lesser carbon footprints is equally significant. Significant urbanization and economic development around the institution has made environment management quite necessary. Hence, it has become essential to adopt the system of Green Campus and ensure environmental stability and ecological wellness of the host institution. As per the mandates of the National Assessment and Accreditation Council, New Delhi (NAAC), like other Higher Educational Institutions, this institute has sought professional help to prepare an annual Green Audit Report. Moreover, this report is a part of its Corporate Social Responsibility (CSR) activities.*

## **2. VISION & MISSION VISION STATEMENT**

### **2.1 OUR VISION**

*To empower students to become technologically vibrant, innovative and emotionally mature; and to train them to face the challenges of the quality-conscious globalized world economy.*

### **2.2 OUR MISSION**

- *To provide an environment most conducive to learning and to create a stimulating intellectual atmosphere on the campus*
- *To achieve Academic Excellence*
- *To ensure a holistic development of personality*
- *To spread education to rural areas*
- *To establish partnership between institution & industry*

### **3. OBJECTIVES**

*In recent time, the Green Audits in institutions of higher education have become important tools of self-assessment in matters related to environment; and immensely help in mitigating environmental problems. Since its inception, promotion of clean and green environment is a cherished goal in this institute. Therefore, the present green audit seeks to identify, quantify, describe and prioritize the framework of Environment Sustainability, in compliance with the applicable regulations, policies and standards.*

*The main objectives of the Environment and 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 parameters in the campus at Mylavaram and its surrounding areas;*
- To document the ambient environmental conditions related to weather, air, water and noise;*
- 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.*

#### **3.1 METHODOLOGY**

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

#### **4. THE INSTITUTION**

*LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (Autonomous), Mylavaram was established in the year 1998 under the aegis of LAKIREDDY BALI REDDY CHARITABLE TRUST. In its 2 decade-long existence, it has been continuously striving to fulfill the vision of its founder, Sri Lakireddy Bali Reddy to see it develop into a hub of Technical Education in Andhra Pradesh. From a modest beginning with just 180 B.Tech students in 4 engineering branches, it has remarkably grown into a major institution in the technical and professional education arena with over 5000 students across 9 engineering branches, offering B.Tech, M.Tech and MBA.*

*An autonomous institution since 2010, this college with permanent affiliation under JNTUK is designated as a 'college with potential for excellence' by UGC. LBRCE ranks in the 201-250 Band of Top Engineering Colleges in India as per the NIRF rankings-2020 released by HRD ministry, Government of India, Apart from NAAC accreditation, 5 Departments Viz., CSE, IT, ECE, EEE & ME have been accredited by the prestigious NBA(Tier-I). LBRCE is an **ISO 9001:2015** certified institution. The college has also been awarded 2 (f) and 12(B) status. LBRCE has been recognized as an NPTEL Local chapter. The college has been ranked with AAA+ rating in India's Best Engineering Colleges list by Careers 360, in addition to the 'A' Grade by the Govt. of Andhra Pradesh.*

*The college is spread over 65 acres of green verdant space, dotted with magnificent buildings, manicured lawns and state-of-the-art laboratories and advanced centers of excellence. In the WiFi-enabled campus, the major facilities include magnificent administrative building (60,000 sq.ft), AC auditoria, power back-up facility, 400 KW Solar Roof Top Plant and multi-cuisine cafeteria.*

*Presently, eight B.Tech programs (CSE, IT, EEE, ECE, ME, Aerospace, Civil and AI & DS) and five M.Tech. Programs in CSE, Thermal Engineering, Power Electronic & Drives, VLSI & Embedded Systems and MBA. A huge pool of well-qualified and experienced faculty & staff, state of the art infrastructure, quality teaching-learning process, robust R&D ecosystem and Placements are the hallmarks of this institution.*

*At LBRCE, students are provided a holistic learning experience through a lot of practical and professional skill training offered through dedicated Skill Development Centers (SDCs) like APPSSDC, Centre for Career Guidance & Training (CGT), Centre for Innovation, Incubation and*



*Entrepreneurship (CIIE) and a host of industry initiatives like Cisco, IBM, Microsoft, Ansys, LabView, NSIC, NPTEL, etc., for enhanced employability and entrepreneurship.*

*The promoters of the LBRCE started the college with a vision to empower students to become technologically vibrant, innovative and emotionally matured to face the dynamic challenges of a quality-conscious global economy. The managing trust is involved in many charitable trust activities to help the needy and the poor of this region, thereby contributing to the socio-economic emancipation of the downtrodden of the society in the region. The major objectives of the trust include promotion of educational facilities by establishing schools and colleges, helping the poor, improvement of health standards by providing safe drinking water, free medical aid, undertaking development action in the village by providing roads, community halls, bus shelters, parks etc., along with providing financial help to the needy meritorious students by way of scholarships. The trust also promotes games and sports activities in the region.*

## **5. NOISE LEVEL IN THE SURROUNDING OF LBRCE**

*The human ear is constantly bombarded by man-made sounds from every side. Not surprisingly, there remain only few places in populous areas where some relative quiet prevails that could help human beings live peacefully without noise. Here, it may be pointed out that 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. There may be varying levels of audible sound recorded at different places. If the human ear can pick up even a sound as low as 10 dB, a rocket engine can create a sound as high as 180 dB. While a whisper create about 20 dB, the library place may make 30 dB. The normal conversation makes about 35-60 dB, whereas, the sound experienced at heavy street traffic could range between 60 and 120 dB. As is well known, higher levels of sound or, rather noise is found in boiler factories at 120 dB, about 150 dB while jet planes takeoff and the worst noise levels of rocket engine at about 180 dB. The loudest sound that a person can stand without much discomfort is about 80 dB. Sounds beyond 80 dB can be easily regarded as pollutant as it harms the 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 as tolerable. Loudness is also expressed in sones. One sone equals loudness of 40 dB sound pressure at 1000 Hz. Frequency is defined as the number of vibration per second, which is denoted as Hertz (Hz).*

### **5.1 NOISE MONITORING REPORT**

*AP Pollution control monitored the noise levels at Administrative block and P.G. block of Lakireddy Bali Reddy College of Engineering, Mylavaram of Krishna District for the analysis of following parameters.*

## 5.2 MEASUREMENT PROCEDURE

The noise level was recorded at different key locations of LBRCE, MYLAVARAM. At each spot, the measurements were taken for 60 seconds during day time (6 AM-6 PM), which were also noted down. Screen shots of the measurements of noise were taken immediately on the app at a time interval of 60th seconds.



ANDHRA PRADESH POLLUTION CONTROL BOARD  
ZONAL LABORATORY, VIJAYAWADA  
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### NOISE MONITORING REPORT

**Name & Address of the industry :** M/s. Lakireddy Bali Reddy College Engineering, Mylavaram (V & M), Krishna District.  
**Monitored by :** Analyst, RO- Vijayawada  
**Date and time of monitoring :** 04.02.2021.

S.No.	Monitoring location	Noise level dB(A) Leq*
		Day Time
1	P.G.Block.	61.4
2	Administration Office	49.9

### AMBIENT AIR QUALITY STANDARDS IN RESPECT OF NOISE

Area Code	Category of Area / Zone	Limits in dB(A) Leq*	
		Day Time (6.00 a.m. to 10.00 p.m.)	Night Time (10.00 p.m. to 6.00 a.m.)
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence Zone	50	40


  
SENIOR ENVIRONMENTAL SCIENTIST

Figure 1: Noise Monitoring Report by APPCB

## 6. AIR QUALITY IN LBRCE

The ambient air quality data for Mylavaram and LBRCE for the last one year shows that there are very less polluted particles in ambient air. The AQI for SO<sub>2</sub> & NO<sub>x</sub> parameters are within the acceptable ranges, justifying its status as a clean, calm and serene campus with lots of green cover provided by large areas under tree plantations. Therefore, the ambient air quality of Mylavaram is measured to be falling within moderate to rich quality range. The above observation is based on authorized report submitted by Andhra Pradesh Pollution Control Board after carrying out Ambient Air Quality Monitoring test in and around the Administration Building in the campus by on 4<sup>th</sup> February, 2021.

### 6.1 AIR QUALITY REPORT



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**TEST REPORT**

**Date:** 24.03.2021

**Report No** : 2102A001  
**Sample code** : Y2102A019  
**Sampling Carried by** : Analyst, RO – Vijayawada.  
**Name & Address of the Customer** : Environmental Engineer, RO - Vijayawada.  
**Sample Reference** : M/s. Lakireddy Bali Reddy College of Engineering, Mylavaram (V & M), Krishna District.  
**Description of Sample** : Y2102A019 – AAQ Monitoring conducted near in-front of Administration Building in the Premises of Lakireddy Bali Reddy College of Engineering.  
**Sample Collected Date** : 04.02.2021  
**Sample Received Date** : 08.02.2021  
**Test Completion Date** : 24.03.2021

Sample ID	Parameter	Concentration in µg/m <sup>3</sup>		
		Test Method	Value	Standard
Y2102 A019	Respirable Suspended Particulate Matter (PM <sub>10</sub> )	IS:5182 (Part-23) 2006	128.0	100.0 µg/m <sup>3</sup>
	Sulphur Dioxide (SO <sub>2</sub> )	IS:5182 (Part-2) 2001	4.6	80 µg/m <sup>3</sup>
	Oxide of Nitrogen (NO <sub>x</sub> )	IS:5182 (Part-6) 2006	19.9	80 µg/m <sup>3</sup>
	Ammonia (NH <sub>3</sub> )	IS:5182 (Part-6) 2006	16.9	400 µg/m <sup>3</sup>
	Particulate Matter (PM <sub>2.5</sub> )	----	44.0	60.0 µg/m <sup>3</sup>

**Note:**  
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**SENIOR ENVIRONMENTAL SCIENTIST**


Figure 2: Air Quality Monitoring Report by APPCB

## 7. WATER ANALYSIS IN LBRCE


Water quality testing defines the contaminants and prevents water borne diseases to ensure that the drinking water remains clean, safe and free from bacteria and diseases. To ensure all the above conditions, the following water quality parameters were tested and treated for human consumption, or in the environment.

### 7.1 WATER QUALITY

A Bore well water sample was collected by AP Pollution control board from a source behind the Vth block of Lakireddy Bali Reddy College of Engineering, Mylavaram of Krishna District for analyzing the following parameters:



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 Accredited by NABL as per ISO/IEC: 17025:2005



TC – 7304

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**Water & Waste Water Test Report**

URL - TC730419001668


<b>Report No</b>	2102W016	<b>Report Date</b>	06.03.2021
<b>Sample code</b>	Y2102037	<b>Test Completion Date</b>	15.02.2021
<b>Sample Collected date</b>	04.02.2021	<b>Sample Received Date</b>	05.02.2021
<b>Sample Collected by</b>	Project Analyst, RO – Vijayawada.		
<b>Name &amp; Address of the Customer</b>	Environmental Engineer, RO – Vijayawada.		
<b>Sample Reference</b>	Waste water samples of M/s. Lakireddy Bali Reddy College of Engineering.		
<b>Description of Sample</b>	Y2102037 – Bore well sample collected behind the 5 <sup>th</sup> block of M/s. Lakireddy Bali Reddy College of Engineering, Mylavaram (V & M), Krishna District.		

S.No	Parameter (s) / Name of Test	Test Method	Units	Sample Code
				<b>Y2102037</b>
1	pH	APHA (23 <sup>rd</sup> Edition) 4500 – H: 2017	----	6.95
2	Electrical Conductivity	APHA (23 <sup>rd</sup> Edition) 2510-B: 2017	µS/cm	2443
3	Total Suspended Solids	APHA (23 <sup>rd</sup> Edition) 2540-D: 2017	mg/L	4
4	Total Dissolved Solids	APHA (23 <sup>rd</sup> Edition) 2540 – C: 2017	mg/L	1465
5	Chemical Oxygen Demand	APHA (23 <sup>rd</sup> Edition) 5220-B: 2017	mg/L	84
6	Alkalinity	APHA (23 <sup>rd</sup> Edition) 2320-B: 2017	mg/L	480
7	Total Hardness	APHA (23 <sup>rd</sup> Edition) 2340-C: 2017	mg/L	672
8	Calcium (Ca <sup>2+</sup> )	APHA (23 <sup>rd</sup> Edition) 3500-Ca B: 2017	mg/L	109
9	Magnesium (Mg <sup>2+</sup> )	APHA (23 <sup>rd</sup> Edition) 3500-Mg B: 2017	mg/L	97
10	Chlorides	APHA (23 <sup>rd</sup> Edition) 4500-Cl B: 2017	mg/L	370
11	Sulphates	APHA (23 <sup>rd</sup> Edition) 4500-SO <sub>4</sub> E: 2017	mg/L	61
12	Nitrates as NO <sub>3</sub> -N	APHA (23 <sup>rd</sup> Edition) 4500-NO <sub>3</sub> -B: 2017	mg/L	14.41
13	Phosphates as P	APHA (23 <sup>rd</sup> Edition) 4500-P D: 2017	mg/L	BDL
14	Fluoride	APHA (23 <sup>rd</sup> Edition) 4500-F & D: 2017	mg/L	0.84

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- ❖ The results relate only to the items tested.

\*End of Test Report\*

  
**SENIOR ENVIRONMENTAL SCIENTIST**

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**Figure 3: Water Quality Monitoring Report by APPCB**

## **8. WASTE DISPOSAL AT LBRCE**

*Waste disposal is an activities or actions undertaken to manage waste from its generation point to its final disposal. This includes collection, transport, treatment and disposal of waste, along with monitoring and regulation of the waste management process.*

*The waste from all the areas of the college is segregated daily as wet and dry waste in different containers that are then disposed off separately. Dry waste include paper, cardboard, glass, tin cans, cloth etc, while on the other hand, wet waste refers to organic waste such as food waste, vegetable peels, canteen kitchen and hostel waste etc. Separation of the waste is essential as the amount of waste generated in a day can cause immense problems in handling and disposing it at a later date, causing stink and growth of harmful microorganisms and other unhealthy substances. The wet waste is then composted and converted into fertilizer in the cluster composting units. This results in the production of good quality organic manure that can be used to nourish soil and also generate plant nutrients in the campus.*

*With smart initiatives like “Best out of Waste”, “Wealth out of Waste”, “Green campus” etc, waste management is helping the colleges and universities to achieve a higher level of environmental performance. LBRCE signed a Memorandum of Understanding (MoU) with ITC to recycle and reuse the paper and cardboard waste generated in the campus. LBRCE adopts environmental friendly practices and takes necessary actions such as- energy conservation, waste recycling, carbon neutral etc. The biological reusable waste is processed as organic manure for the plants in the college campus, while the other solid waste generated in the college campus is dumped in the community bin of the Mylavaram municipality*



### **8.1 Steps in Waste Management**

*This initiative was taken as a part of the National mission on “Clean and Green Environment” followed by Swatch Bharat Abhiyan in which a number of activities like Plastic ban,*

*Dry and Wet waste garbage separation, Rain water harvesting, usage of controlled water, Recycling of used water, Paper shredding to make art paper, E-waste etc. were carried out. As an Institute, we have taken steps in whatever small way we can to support this global cause by initiating a few, but concrete steps to meet the goals. Waste management is a major issue facing the modern society. To resolve the problem of waste management, a growing emphasis has been laid on the three R's: Reduce-Reuse- Recycle.*

*Prakruthi-Environmental Club is established to increase and promote awareness of environmental issues such as protection, conservation, preservation, restoration and help students and staff to adopt the philosophy of sustainable development into their daily lives, both inside college as well as outside, with emphasis on educating and empowering them.*

### **8.2 Solid waste management**

*Solid waste is collected without any systematic segregation. The food waste is supplied to vendors for cattle feed. The garden waste is used in the campus as fertilizers under mulching action.*

*Solid waste management is a system for handling all the garbage that includes waste collection, segregation, recycling programs, stabilization, dumps and incineration. It is also focused on developing environmentally sound methods of handling garbage. The main aim of solid waste management is to reduce and eliminate adverse impacts of waste materials on human health and environment and thereby support economic development and superior quality of life. Composting provides a means of accomplishing all three R's. Through composting, the amount of garbage sent to the landfill is reduced and the organic matter is reused rather than dumped and recycled into a useful soil amendment.*

*The compost plant for solid waste management in the institute was constructed behind the civil engineering department. The dry leaves, grass waste and decomposable litter are used to produce compost. The solid waste is collected in two bins with green and red colour for decomposable and non-decomposable waste separately, filled by individuals. The bins for collection of solid waste are placed at prominent locations throughout the campus. The administrative supervisor in each block ensures that the waste in each floor is collected at designated time intervals. The floor dustbins are emptied in movable containers/dustbins provided for each block and is taken to the dumping yard provided by the college. The waste is segregated into recyclable waste and organic waste and then sent to compost plant. The compost thus formed is added as organic fertilizer in the campus vegetation, which also reduces the consumption of chemical fertilizers. In the institute, the greenery is nurtured by the natural manure produced in the college and not by using artificial fertilizers.*

*Metal and wooden waste is stored and given to authorized scrap agents for further processing. Sanitary napkins are disposed of by using incineration process. The old records and books left in campus and campus hostels have been collected and sent to ITC-WOW organization for recycling of paper, as they will supply the new stationery in exchange of the waste. The new stationery procured, is distributed to school students of lower class section in society at government school and orphans. [MoU PRINT OUT ITC].*

### **8.3 Plastic free campus**

*Notices are displayed in campus to make users refrain from using single use plastics. In addition, the college security personnel are alerted to stop the entry of single use plastics into campus in any form. Student Centre and Hostel rooms are monitored for all such usage to see that the campus is totally single-use plastic free. Students and Staff members are encouraged to use Cloth/Paper bags in place of plastic bags.*

### **8.4 Liquid waste management**



*In the Department of Chemistry and few other laboratories, some concentrated acids are stored and utilized while running laboratory courses for under graduate students. Necessary precautions are taken to store those chemicals in a safe and separate room, called store room. The fuming cupboards in the laboratories help students to prepare solutions of volatile substances like ammonia. Keeping in view student safety as well as environmental protection, the Department of Chemistry fixes the concentrations of solutions very low to ensure that the drained liquid waste does not require any pre treatment before it is disposed. In view of the extremely diluted forms of acids and other solutions used by students in the laboratory, the waste water is drained out directly. Drinking water facility is arranged in all the buildings of the campus. Wastage of drinking water is restricted through proper monitoring. Proper drainage system is found in all the buildings of the campus that help waste water to get drained out properly and support the greenery and ecological sustainability in the campus.*

- *Sewage from campus is collected through proper drainage system and is let out into municipal sewers.*
- *Sewage from girl's hostel(located within the campus) is treated in a septic tank and the effluent is stored in a storage tank, while the excess is reverted to growing trees in the vicinity.*
- *Sprinklers are used to develop the lawns/greenery in the campus while reducing water consumption in the process.*
- *All the buildings / blocks are provided with open sewer system.*

### **8.5 E – Waste management**

*All electrical waste such as tube lights, bulbs, old switches and wires are stored separately. The house keeping team has been trained in handling all categories of waste. An effective*

## ***Environment and Green Audit Report, LBRCE, Mylavaram***

*system of segregation, collection, storage and eco-friendly disposal of waste has been put in place.*

*The e-waste generated from hardware that cannot be reused or recycled is being disposed off. The e-waste is generated from computer peripherals and some obsolete electronic equipment. The low-configured computers have been donated to the nearby schools and the degree college.*

*All the minor repairs are done by the in house technicians to keep devices up-to-date and fully functional, while the major repairs are undertaken by involving outside professional technicians to ensure optimum energy conservation.*

*Moreover, the condemned equipment, damaged computers and waste compact discs are disposed by engaging outside agencies. By associating with various Professional Society Student chapters, the college regularly organizes awareness programmes on waste management practices for students, faculty and staff, thereby promoting eco-friendly environment. The environment club of LBCE (PRAKRUTHI) is spearheading such sensitization activities.*



***Figure 4: Black bin for E-waste in computer laboratories***

*Some important activities undertaken in this regard are:*

- *Disposal of condemned batteries and damaged computers through outside agencies.*
- *Donating low-configured computers to nearest schools.*
- *Awareness programmes on E-waste management*

***8.6 Waste recycling***

- *Garden waste used as mulching for plant growth in campus.*
- *Paper waste collected in campus sent to disposal agency as part of MoU.*

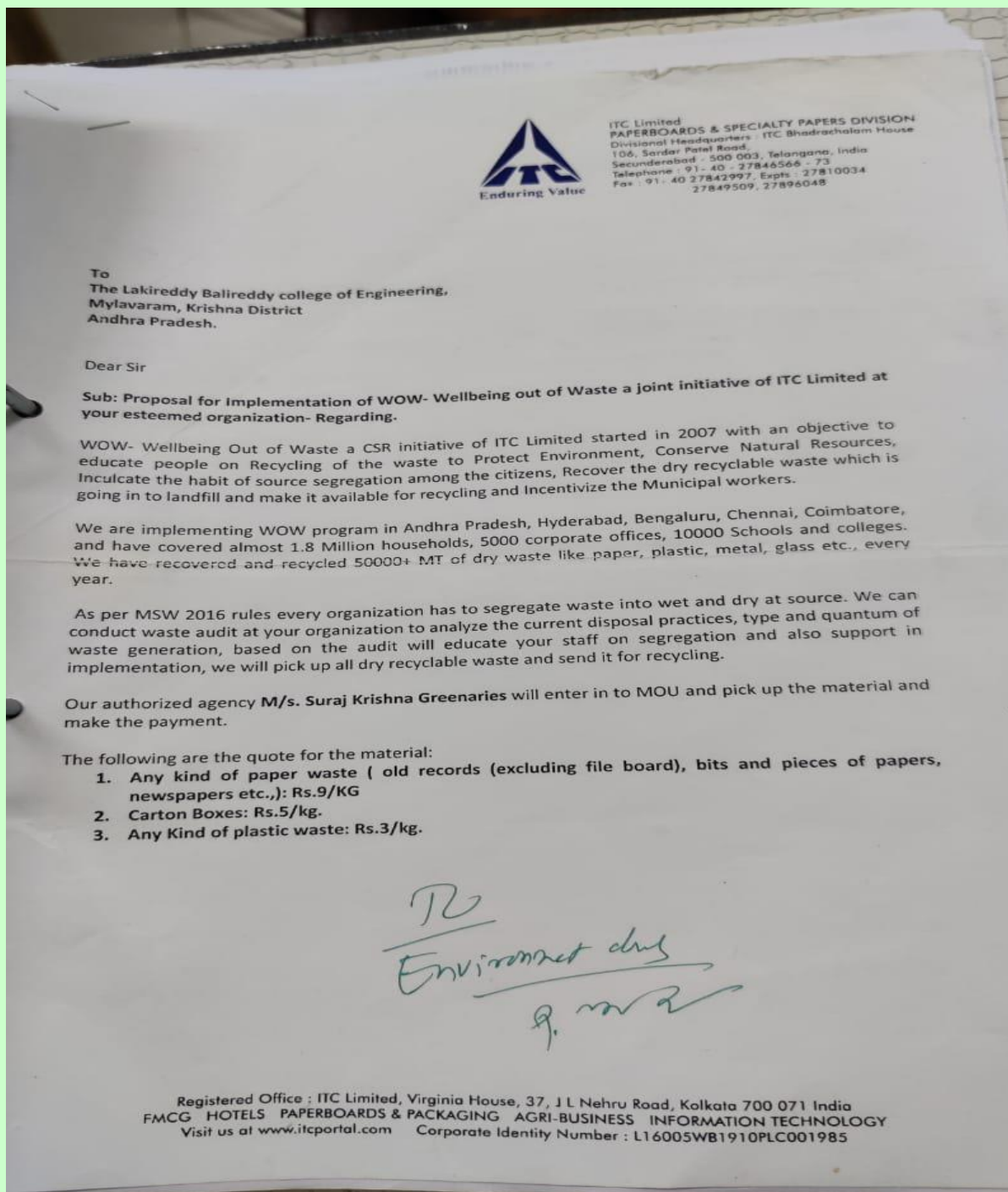


Figure 5: MoU with ITC for paper waste recycling

- *Partial recycle of treated sewage for development of greenery in girl's hostel.*



*Figure 6: Green waste collection pit for preparation of manure*



*Figure 7: Organic compost prepared in college campus*



*Figure 8: Green and blue bins for wet waste and dry waste*



*Figure 9: Cluster composting unit*

### *8.7 Hazardous chemicals and radioactive waste management*

*It is mainly generated from chemistry and allied laboratories. It is diluted and drained through sinks and other drainages.*



## **9. TREE DIVERSITY OF LBRCE, MYLAVARAM, ANDHRA PRADESH**

*LBRCE is geo-positioned between 16.74872 N latitude and 80.63419 E longitude in Mylavaram, Andhra Pradesh, India. It encompasses an area of about 62.5 Acres. The area is endowed with a diverse range of flora, including a variety of tree species. The tree species have been planted at different periods of time in the past through various plantation programs taken up in the college, thus forming an integral part of the green cover in the campus. The great variety of trees and plants have created a clean and healthy campus life offering not just quality air, water, but provided good space and ambience to its various stakeholders to develop close bonds of community and fellowship.*

*The large swathes of greenery have added to the stability and sustainability of the campus environment through improved air quality, water conservation, soil preservation, and wildlife, climate control through moderation of the effects of the sun, rain and wind. The campus stays cool even during hot summers due to green cover. Many bird species are dependent on the vast number of trees and foliage for food and shelter. The swarm of nectar-hungry warps, bees around flowers and plants is a common sight in the campus. The thickly-covered tree branches and bushes provide living and resting place to many animals and birds. The flora varieties display seasonal changes in their appearance. The abundance of trees and plants has added a pleasant richness to the ambience of the campus. A thick belt of large shady trees abutting the edges of the campus acts as natural barriers to block vehicular noise affecting the serenity and peacefulness in the campus. Thus, the college has successfully maintained a sustainable green environment in across the length and breadth of the campus through a vast network of trees and plants.*

### **9.1 Landscaping with trees and plants**

- *The Institute has a canopy of trees and plants that make the environment carbon dioxide free to safeguard the health of all the inmates.*

- The green ambience of the Institution is largely due to tree plantation which maintains the ecosystem.
- The green belt (33% of total area) has green lawns and trees (maintains biodiversity) which provide shade and beautiful ambience.
- The drip method is used for watering plants and reduces potable water usage, while pesticides and fertilizers minimally used in the garden.

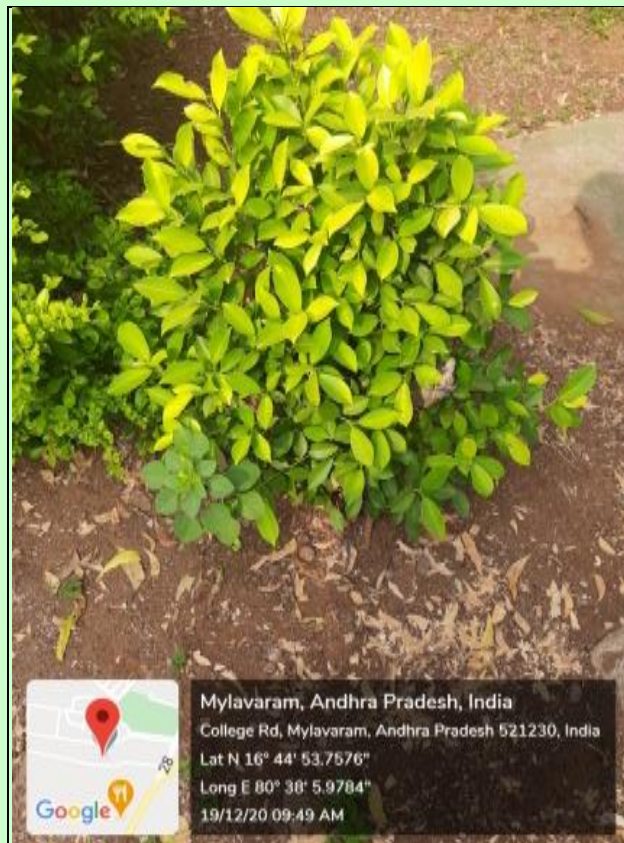
## 9.2 Species composition of the Green Belt

**Table 1: List of tree species of LBRCE, MYLAVARAM, ANDHRA PRADESH**

S.No.	BOTANICAL NAME	FAMILY	COMMON NAME
1	<i>Manikara zapota</i>	Sapoteceae	Sapodilla sapota
2	<i>Cananga odorata</i>	Annonaceae	Perfume tree
3	<i>Azadirachta indica</i>	Meliaceae	Neem
4	<i>Tagetus patula-1</i>	Asteraceae	French marigold
5	<i>Caesalpinia pulcherrima</i>	Fabaceae	Peacock flower
6	<i>Tridax procumbens</i>	Asteraceae	Coatbuttons
7	<i>Aervalanata</i>	Amarantaceae	Mountain Knotgrass
8	<i>Ixora coccinea</i>	Rubiaceae	Flame of the woods
9	<i>Codiaeum variegatum</i>	Euphorbiaceae	Croton
10	<i>Yucca plant</i>	Asparagaceae	Adam's needle
11	<i>Palm tree</i>	Arecaceae	Beetel Palm
12	<i>Eclipta alba</i>	Asteraceae	False daisy
13	<i>Prunus dulcis</i>	Rosaceae	Bitter almond
14	<i>Neolamarckia cadamba</i>	Rubeaceae	Burflower-tree(Kadamb)
15	<i>Areca catachu</i>	Arecaceae	Beetle palm
16	<i>Prunus</i>	Rosaceae	Rose family
17	<i>Callistemon</i>	Myrtaceae	Bottle brush
18	<i>Tecoma stans</i>	Bignoneaceae	Trumpet wine
19	<i>Portulaca gandiflora</i>	Potulacaceae	Purslanes
20	<i>Rosa indica</i>	Rosaceae	Rose family
21	<i>Lilium</i>	Liliaceae	Lilly
22	<i>Tectona grandis</i>	Lamiaceae	Teak
23	<i>Fern plant</i>	Polypoceae	Fronds
24	<i>Bauhinia purpu</i>	Fabaceae	Purple Orchid Tree
25	<i>Saracaindica tree</i>	Dalbergia sisso	Ashoka
26	<i>Redoakravenala</i>	Steriliziaceae	Travellers palm
27	<i>Cycas beddomei</i>	Cycadaceae	Sago Palm



28	<i>Psidium guajava</i>	Mytaceae	Yellow guava
29	<i>Cocos nucifera</i>	Arecaceae	Coconut Palm
30	<i>Mangifera indica</i>	Anacardiaceae	Mango



*Figure 10: Croton*



*Figure 11: Manikara zapota*



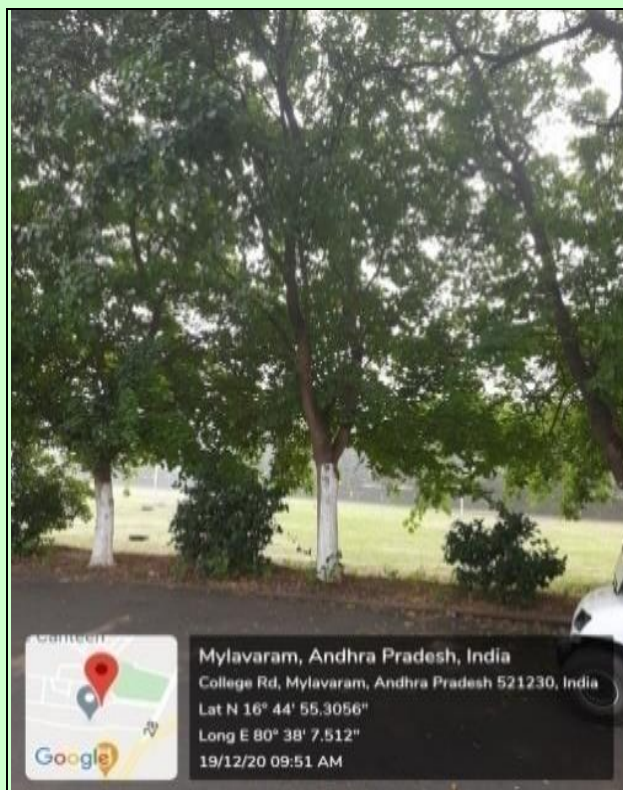


Figure 12: *Cananga odorata*

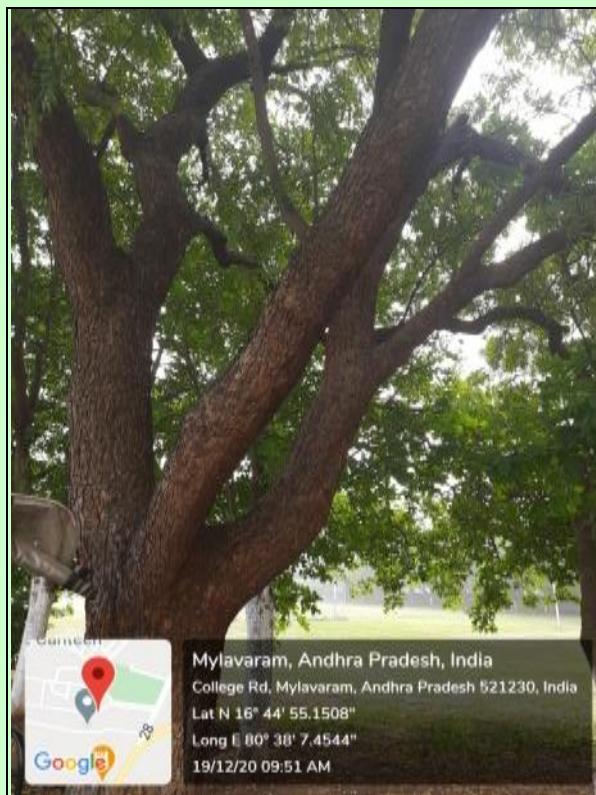


Figure 13: *Azadirachta indica*

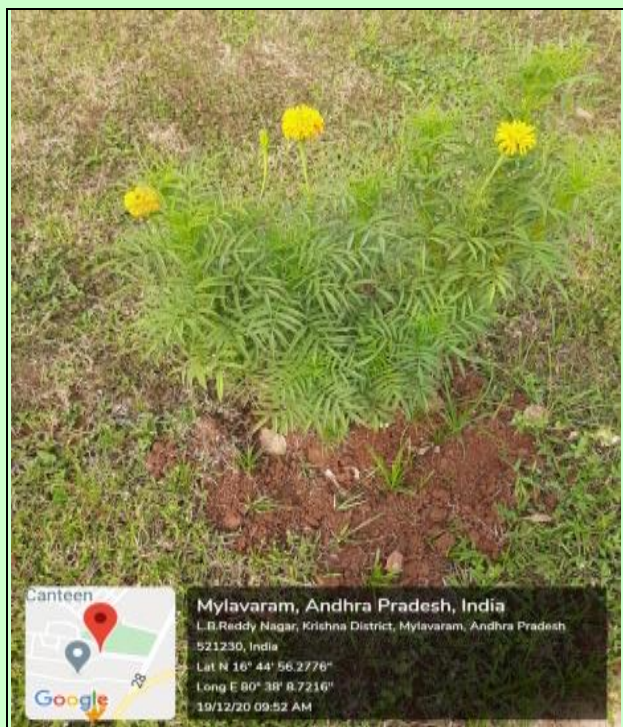


Figure 14: *Tagetes patula-1*

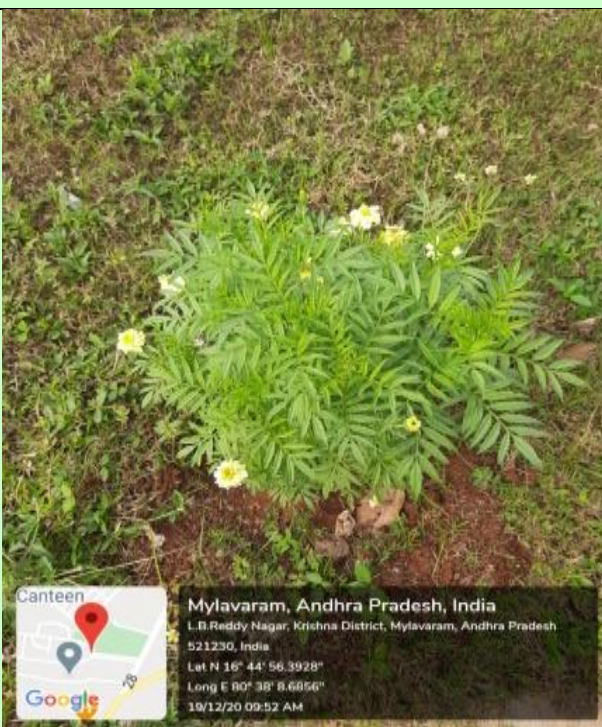


Figure 15: *Tagetes patula-2*





Figure 16: *Caesalpinia pulcherrima*



Figure 17: *Ixora coccinea-1*



Figure 18: *Caesalpinia pulcherrima*



Figure 19: *Tridax procumbens* ,



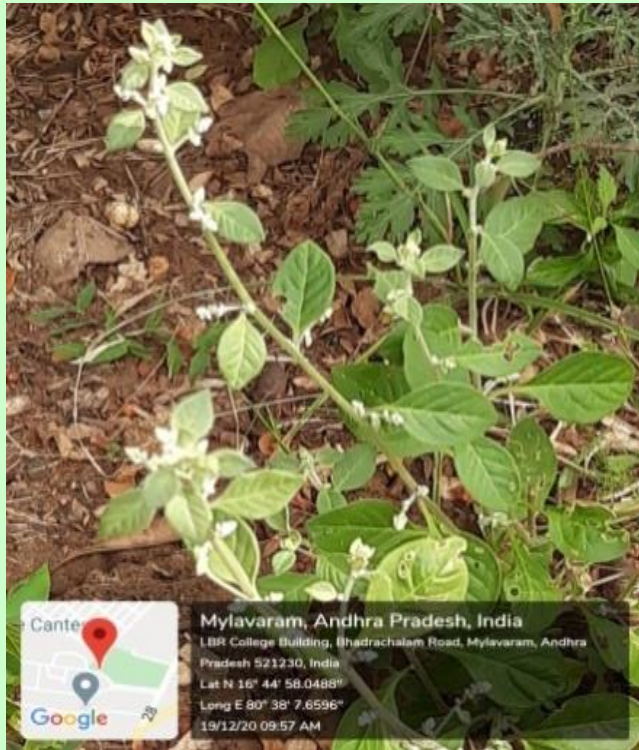


Figure 20: *Aerva lanata*

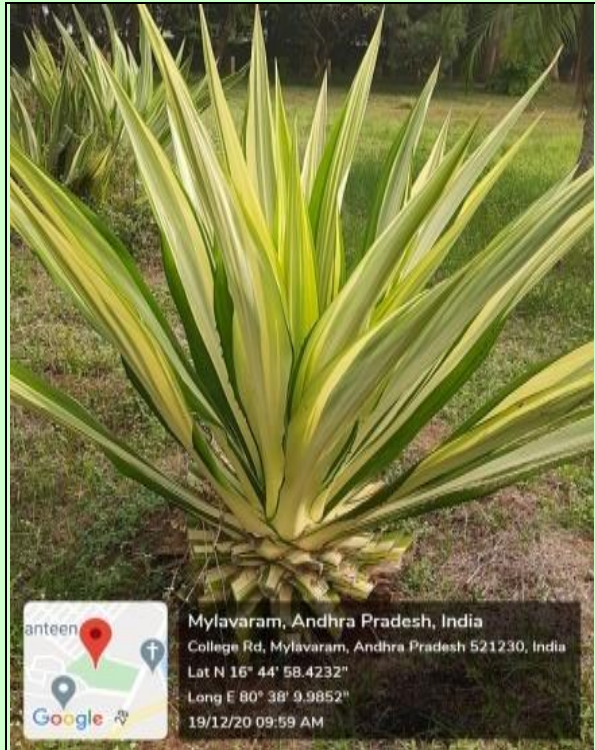


Figure 21: *Croton*

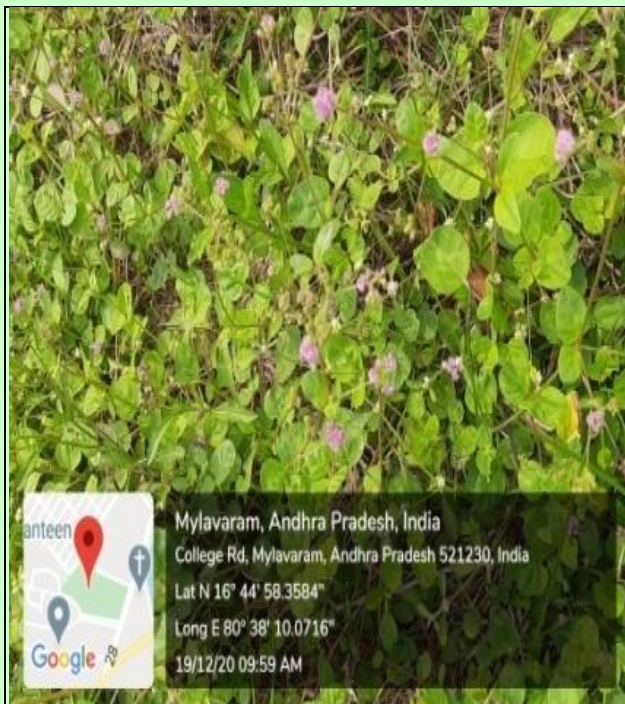


Figure 22: *Yucca* plant



Figure 23: *Palm tree*



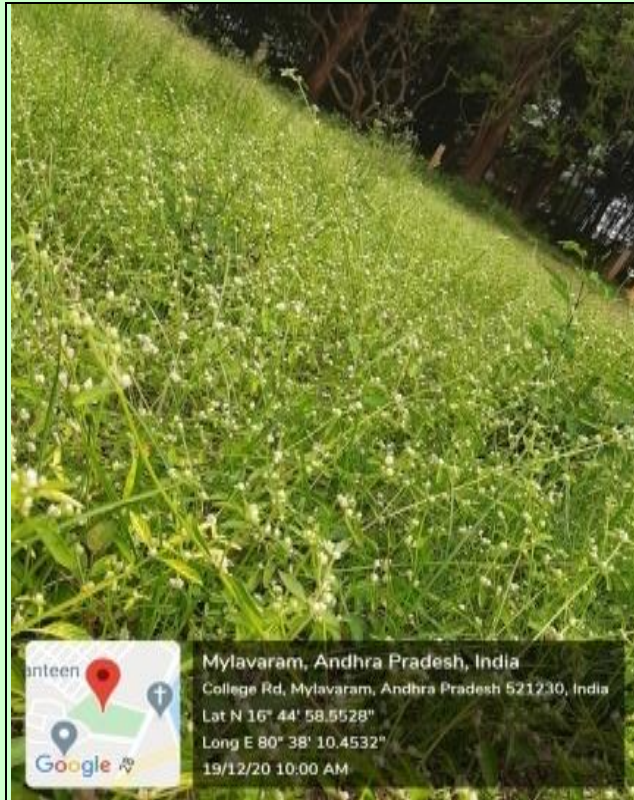


Figure 24: *Eclipta alba*

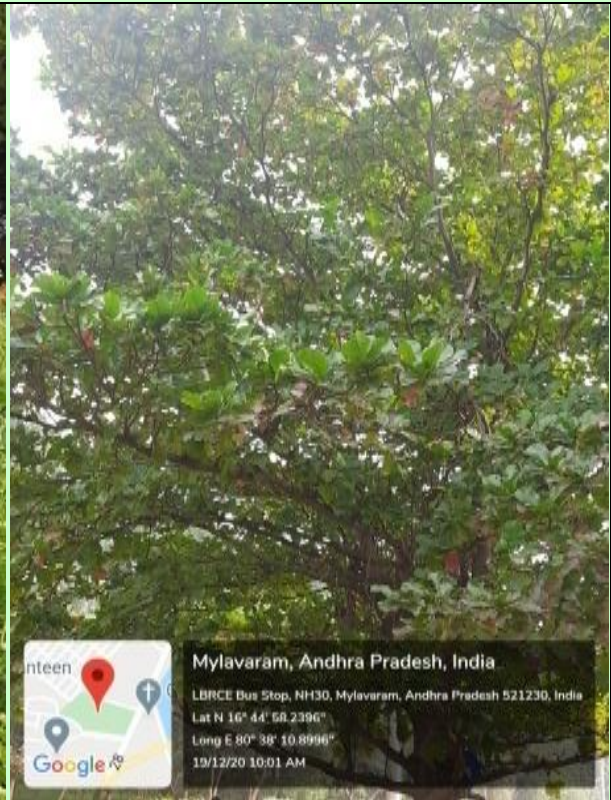


Figure 25: *Prunus dulcis*

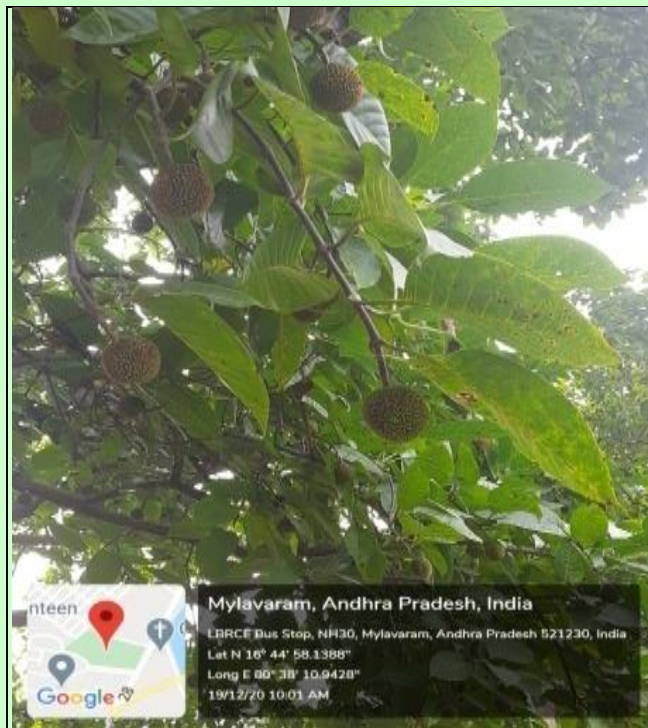


Figure 26: *Neolamarckia cadamba*



Figure 27: Beetle palm



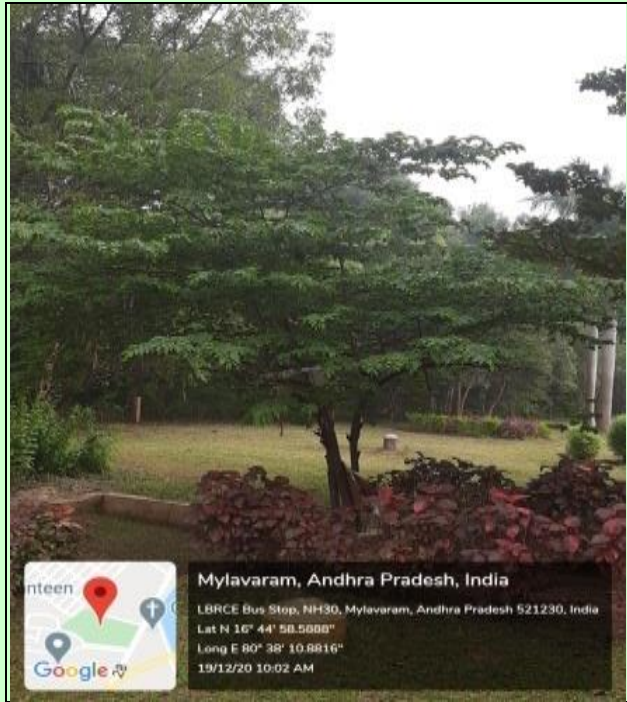


Figure 28: *Muntingia*



Figure 29: *Callistemon*



Figure 30: *Tecoma stans*



Figure 31: *Portulaca gandiflora*



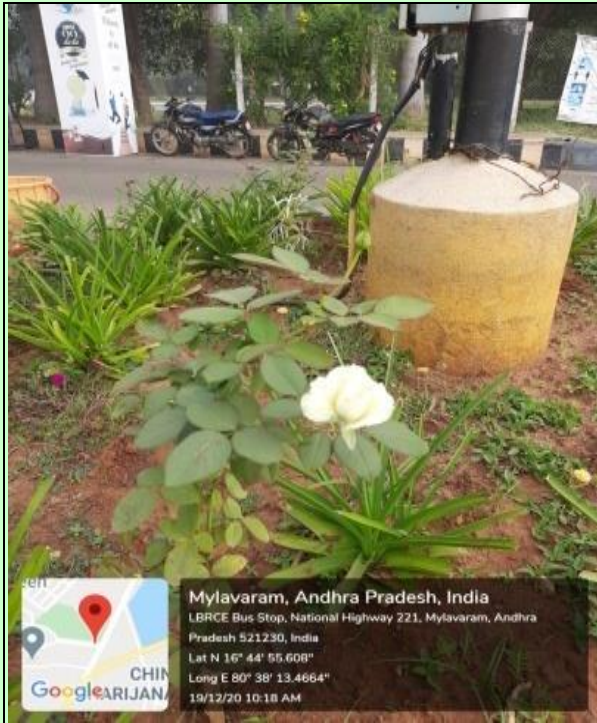


Figure 32: *Rosa Indica*



Figure 33: *Lilium*



Figure 34: *Manilkara zapota*



Figure 35: *Tectona grandis*



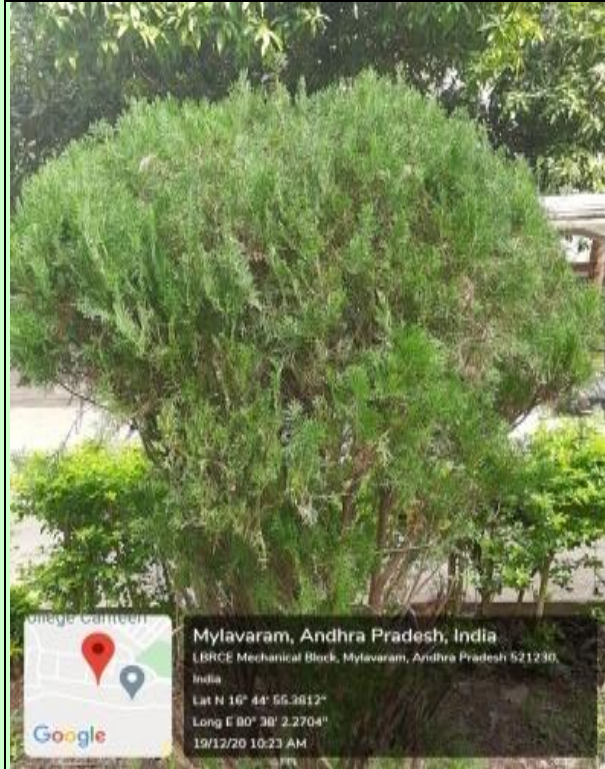


Figure 36: Fern plant



Figure 37: Bauhinia purpurea



Figure 38: Poliathia longifolia



Figure 39: Redoak ravenalia





Figure 40: *Cycas beddomei*



Figure 41: *Psidium guajava*



Figure 42: *Cocos nucifera*

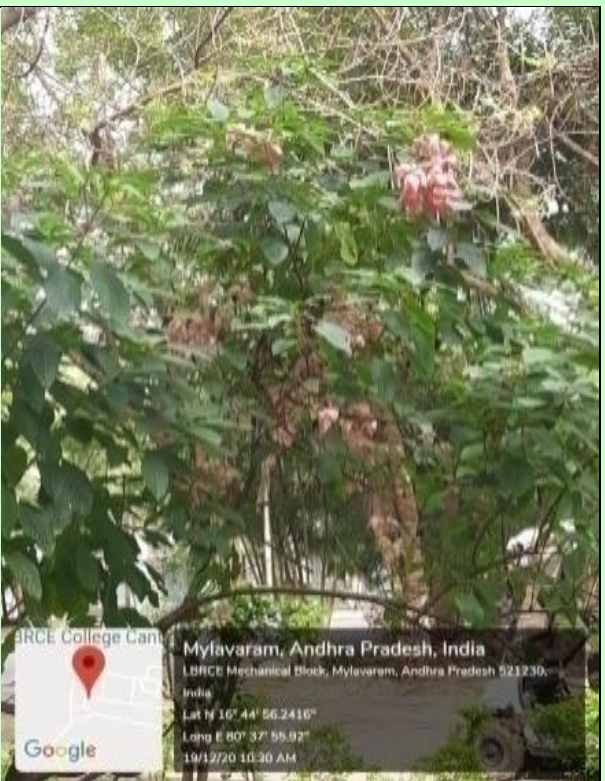


Figure 43: *Musanda*

**10. FAUNAL DIVERSITY OF LBRCE, MYLAVARAM, ANDHRA PRADESH:**

*LBRCE is located in the outskirts of Mylavaram town under Vijayawada revenue division, Krishna District, Andhra Pradesh. Lakireddy Bali Reddy College of Engineering (LBRCE) has a green campus. Its natural setting are highlighted by the surrounding woodlands on all sides of the campus, abundance of typical flora and fauna and relative serenity and calm atmosphere, far away from noisy habitations.*

**Table 2: Common and Scientific names of birds and animals**

<b>S.No</b>	<b>Common Name</b>	<b>Scientific Name</b>
1	Common Frog	<i>Rana hexa dactyla</i>
2	Toad	<i>Bufo Melanostictus</i>
3	Flying frog	<i>Rhacophorus</i>
4	Tree frog	<i>Microhyla oranata</i>
5	Cobra	<i>Naja naja</i>
6	Krait	<i>Bungarus caeruleus</i>
7	Python	<i>Python molurus</i>
8	Wiper	<i>Russel's wiper</i>
9	Wolf snake	<i>Lycodon</i>
10	Green whip snake	<i>Ahaetulla nasuta</i>
11	Water snake	<i>Natrix piscator</i>
12	Garden lizard	<i>Calotes Versicolor</i>
13	Chameleon	<i>Chamaeleonidae</i>
14	Wall lizard	<i>Hemi doctylus prashadii</i>
15	Wall lizard	<i>Hemidactylus brooki</i>
16	Skink	<i>Mabuya carinata</i>
17	Pink skink	<i>Lygosoma dussumierii</i>
18	Limbless skink	<i>Barkudia melanosticta</i>
19	Monitor lizard	<i>Veranus benghalenss</i>
20	Common rat	<i>Ratus ratus</i>
21	Mongoose	<i>Mongoose mongoose</i>
22	Dog	<i>Canis lupus familiaris</i>
23	Squirrel	<i>Funambulus</i>
24	Bandicoot	<i>Bandicoota benghalenss</i>
25	Monkey	<i>Macaque macaque</i>
26	Hanuman langur	<i>Semnopithecus</i>
27	Red ant	<i>Formicidae</i>
28	Black ant	<i>Lasius niger</i>
29	Beetle	<i>Coleoptera</i>
30	Spider	<i>Araneae</i>
31	Glass worm	<i>Centipede</i>
32	Earth worm	<i>Perionyx excavatus</i>
33	Dragon Fly	<i>Anax</i>

34	Butter Fly	<i>Danaus genutia</i>
35	Common Myna	<i>Acridotheres tristis</i>
36	House Sparrow	<i>Passer domesticus</i>
37	Red-Vented Bulbul	<i>Pycnonotus cafer</i>
38	Butter Fly	<i>Danaus genutia</i>
39	Crane	<i>Grus</i>
40	Pegion	<i>Columba livia</i>
41	Eagle	<i>Accipitridae</i>
42	Wood pecker	<i>Picidae</i>
43	King fisher	<i>Alcedinidae</i>
44	Owl	<i>Strigiformes</i>
45	Parrot	<i>Psittacula eupatria</i>
46	Common rosefinch	<i>Carpodacus erythrinus</i>
47	House Sparrow	<i>Passer domesticus</i>
48	Pied Myna	<i>Gracupica contra</i>
49	Common hill myna	<i>Gracula religiosa</i>
50	Common babbler	<i>Argyacaudata</i>
51	Redvented bulbul	<i>Pycnonotuscafer</i>
52	House crow	<i>Corvus splendens</i>
53	Black drongo	<i>Dicrfurusmacrocerus</i>
54	Indian golden oriole	<i>Orioluskundoo</i>
55	Lesser whistling duck	<i>Dendrocygnajavanica</i>
56	Barheaded goose	<i>Anser indicus</i>
57	Indian spot billied duck	<i>Anas poecilorhyncha</i>
58	Rock bush quail	<i>Perdiculaarg</i>
59	House chick	<i>Gallus gallus</i>
60	Common swift	<i>Apus apus</i>
61	Aisankoel	<i>Eudynamysscolopaceus</i>
62	Rock dove	<i>Columba livia</i>
63	Wood pigeon	<i>Columba elphinstonii</i>
64	Common crane	<i>Grus grus</i>
65	Cattle egret	<i>Bubulcus ibis</i>
66	Red lapwing	<i>Vanellus indicus</i>
67	Yellow wattled lapwing	<i>Vanellus malabaricus</i>
68	Little tern	<i>Stenulaalbifrons</i>
69	Little cormorant	<i>Microcarboniger</i>
70	Indian pons heron	<i>Ardeolagrayii</i>
71	Little egret	<i>Egretta garzetta</i>
72	Indian spotted eagle	<i>Clangahastata</i>
73	Brahminy kite	<i>Kaliasturindus</i>
74	Spotted owlet	<i>Athene brama</i>
75	Common kingfisher	<i>Alcedoatthis</i>



76	Pied kingfisher	<i>Cerylerudis</i>
77	Green bee eater	<i>Meropsorientalis</i>
78	White bellied wood pecker	<i>Dryocopusjavensis</i>
79	Crowned woodpecker	<i>Leiopicusmahrattensis</i>
80	Red necked falcon	<i>Falco chiquera</i>
81	Rose ringed parakeet	<i>Psittaculakrameri</i>
82	Indian pitta	<i>Pitta brachyura</i>

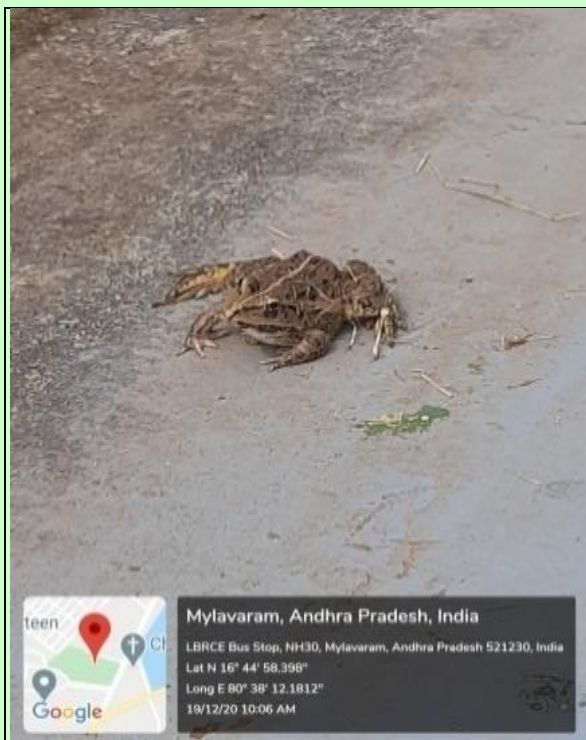


Figure 44: Rana Tigrina – 1



Figure 45: Centipede

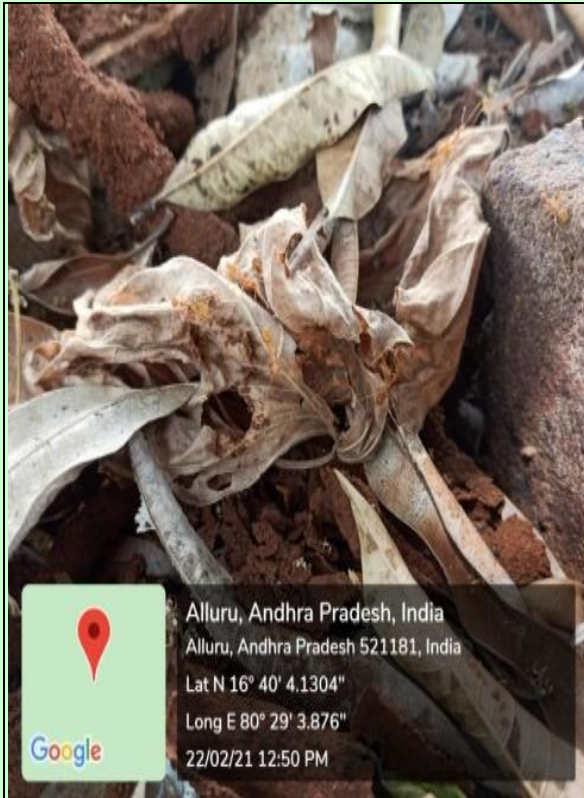


Figure 46: Formicidae (Red ant)



Figure 47: Anax

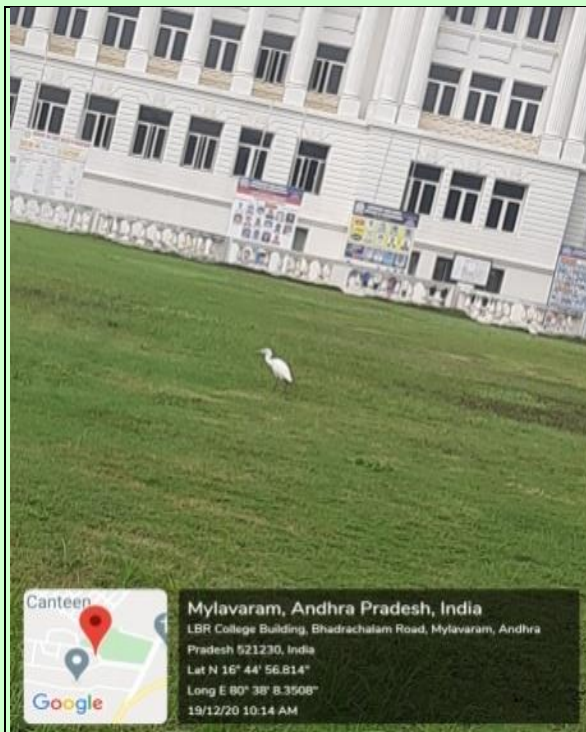


Figure 48: Grus



Figure 49: Beetle insect





Figure 50: Snake (*NajaNaja*)

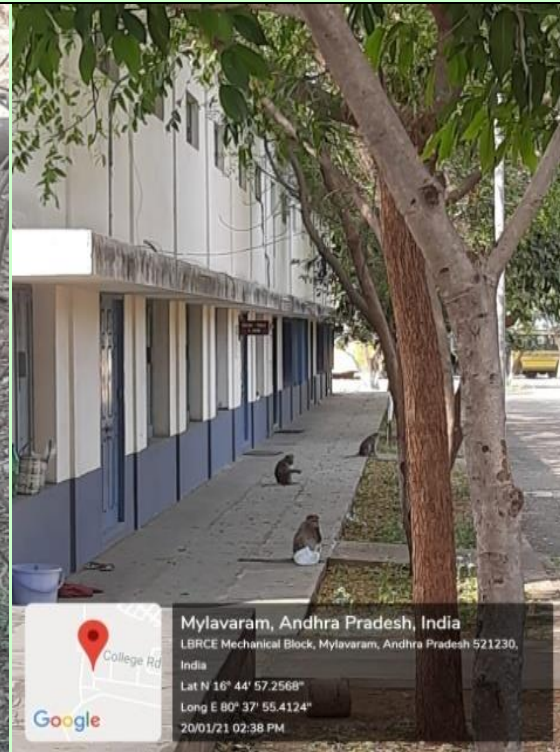


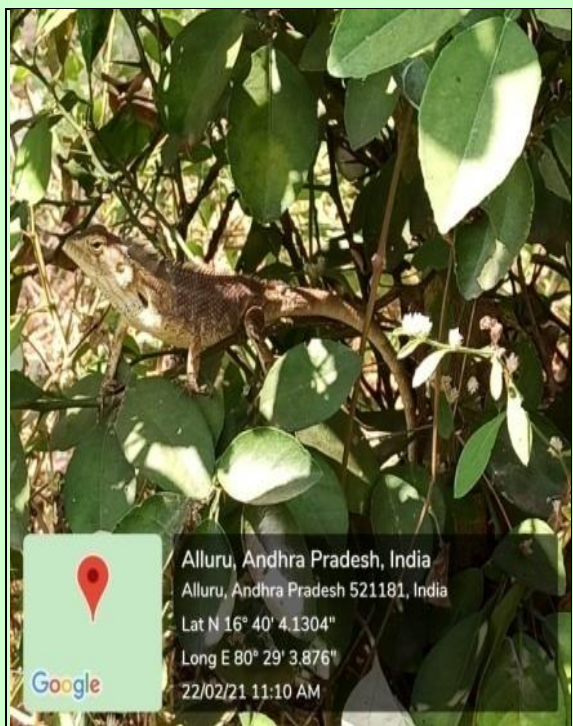
Figure 51: *Similiformescatarrhini*



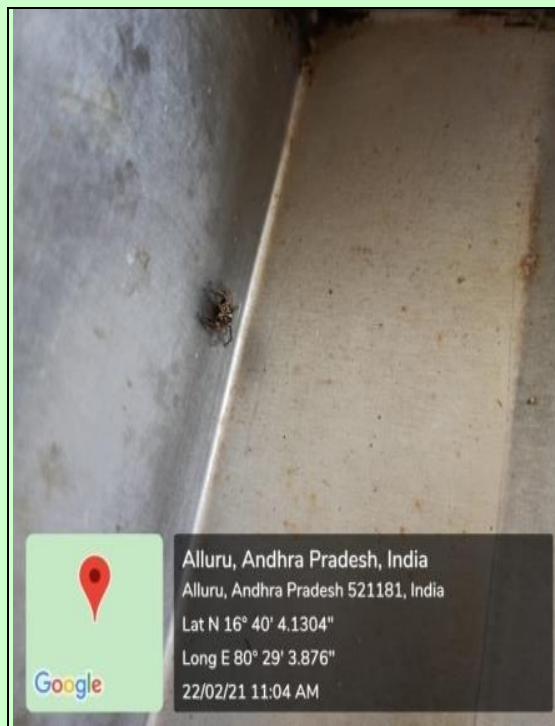
Figure 52: House Crow (*Corvus Splendens*)



Figure 53: *Canis lupus familiaris*



*Figure 54: Calotes versicolor*



*Figure 55: Araneae*

## **11. RAIN WATER HARVESTING**

*Rain water collected from each of the five main classroom blocks is diverted into collection pits located behind the blocks.*

### **11.1 Water harvesting**

*To minimize the wastage of water resources and to improve the water table, rain water is led into 10 pits located at different places within the blocks.*



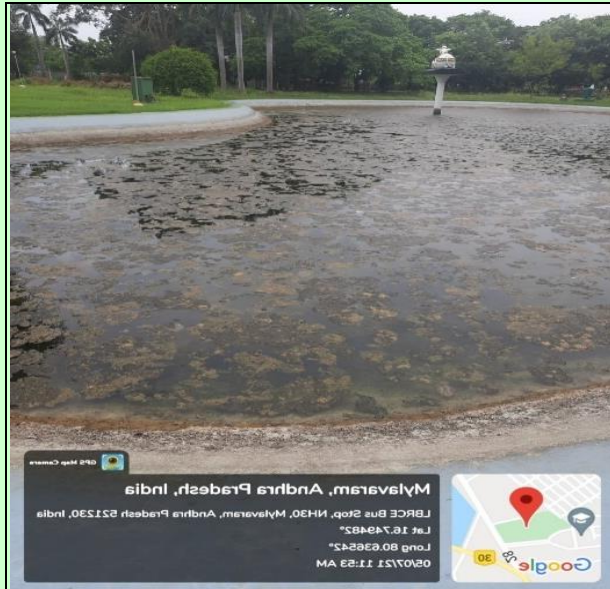


Figure 56: Rain water harvesting pond

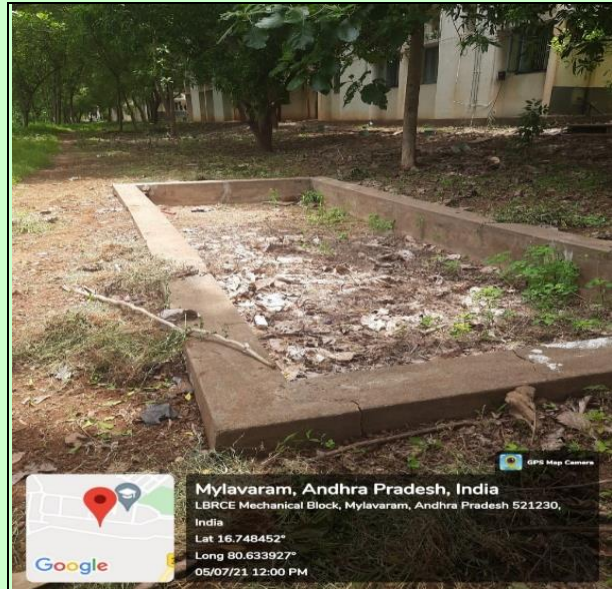


Figure 57: rain water harvesting pit

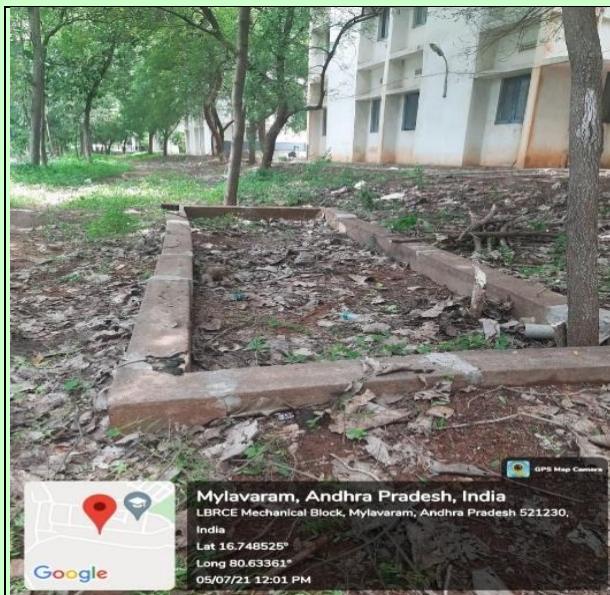
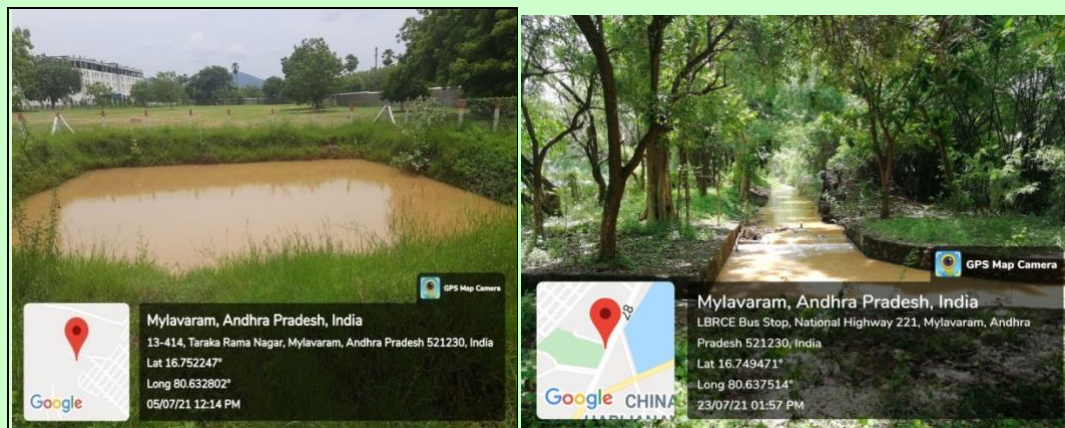


Figure 58: Rain water harvesting pits



Figure 59: Rain water harvesting pits





*Figure 60: Rain water harvesting pond near to Girl's Hostel*

*Figure 61: Dam for rain water harvesting*

### *11.2 Bore well /Open well recharge*

*The water needs of the entire campus is met by using four bore wells located within the campus and OHTs installed to store ground water in every block. It is distributed to all parts of the campus through a systematic water distribution system.*

### *11.3 Medicinal Herbal garden at LBRCE*

*A medicinal herbal garden was developed at LBRCE to conserve and educate the students about the importance of herbs in their daily lives*



*Figure 62: Medicinal Herbal garden at LBRCE*

## **12. TRANSPORTATION AT LBRCE**

*LBRCE uses a large fleet of buses for transportation of students & staff from various important locations such as Vijayawada, Nuzvid, Vissannapeta, Tiruvuru, Nandigama, Mangalagiri, Gannavaram, Nunna, Poranki, Madhira, Penugolu, Putrela. The college provides comfortable travel facilities, including other conveniences to help them focus on their work/studies. The transport personnel follow clear and certified guidelines to ensure that environmental benefits are maintained even at optimum occupancy. Such bus transportation has helped in reducing personal automobile use to minimum, thereby ensuring prevalence of clean air, not just within the campus, but in all surrounding areas. It has helped in keeping traffic congestion lower, which in turn reduces air pollution from idling vehicles, and helps riders avoid stress resulting 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/rider.*

**Table 3: Fuel consumed by the vehicles of LBRCE**

<b>S.NO</b>	<b>Busses</b>	<b>Cars</b>	<b>Cabs</b>	<b>Others</b>
<i>Number of Vehicles</i>	31	8	-	-
<i>Fuel consumed per day/month/annually</i>	868 lpd 22000 lpm		-	-

### **12.1 Use of Bicycles/ Battery powered vehicles**

*Bicycles are provided for quicker commutation within the campus. Also, a few faculty and students use bicycles to reach the College from hostels and surrounding residential areas.*

*Some highlights of the above transport system are:*

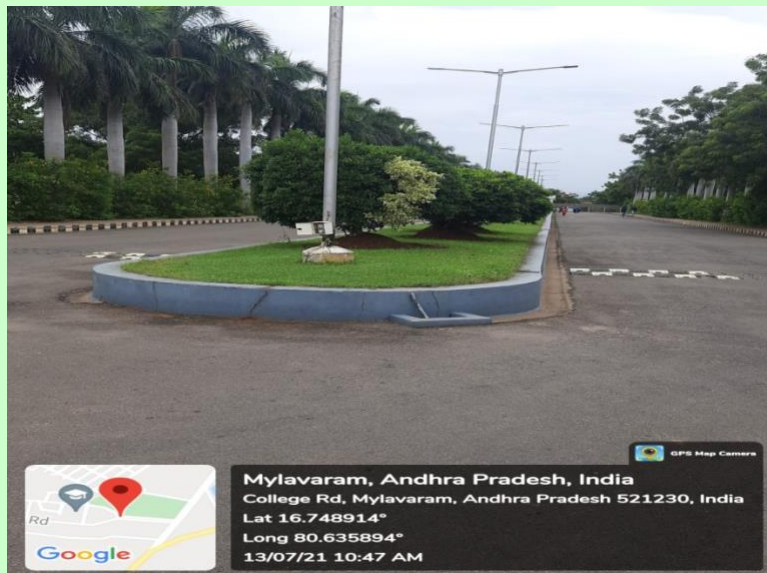
- An exclusive transport facility provided for staff, students, and hostlers.*
- Regular Pollution check of vehicles by authorized agency.*
- Mandatory Pollution check stickers on all Private transport, Institute vehicles and faculty owned vehicles.*

- *Random checks to check the validity of such certificates.*

### ***12.2 Pedestrian Friendly pathways***

*In order to reduce carbon burden and promote free and peaceful pedestrian movement across the campus, the following provisions have been put in place:*

- *Pedestrian-friendly foot paths leading from the main gate to various academic buildings, Laboratory complexes, hostels and other installations located within the campus.*
- *The walkway is lined with trees and Solar lights.*



***Figure 63: Pedestrian friendly foot paths at LBRCE***

## ***13. GREEN INITIATIVES OF LBRCE***

*Various green initiatives, including the green practices adopted by the institution in successive years are mentioned below:*

***13.1 Ban on use of Plastic***

- *On-campus use of plastic is discouraged.*
- *Plastic cups and Paper cups lined with plastic/wax are banned in the canteen. The hot beverages are served in steel mugs/glass.*
- *Students and staff motivated to use their own mugs/cups instead of paper cups.*
- *Priority is given to eco-friendly and indigenous brands.*
- *Plastic straws and plastic food packaging is not used in the campus.*
- *Plastic cutlery is replaced by steel/ bamboo cutlery.*
- *Posters and pamphlets displayed in prime locations of the campus for maximum awareness.*

***14. ENVIRONMENTAL POLICY OF LBRCE***

### **14.1 Policy Statement**

*LBRCE strives to assume leadership position in environmental management by inculcating responsible and ethical environmental conservation practices in all its stakeholders. LBRCE shall continue to promote environmental awareness among the students and staff. As a basic principle, the institute seeks to conserve and protect the environment by fostering empathetic interlinking between the environment and society; and strive towards its sustainable development.*

*The primary objectives of the Environmental Policy are as follows:*

### **14.1 Action Plan**

- *Conduct green and environmental audit once in a year and internal audit once in six months.*
- *Minimize the use of paper in office to reduce carbon footprint on the campus*
- *Protect water table by installing rain water harvesting systems.*
- *Make the college campus plastic and Tobacco free.*
- *Create awareness among stakeholders on environmental issues by organizing different activities through Prakruthi - The Environmental Club of LBRCE.*
- *Abide by all the applicable environmental, health, and safety laws, as well as other regulations as stipulated by state and central Govts.*
- *Implement effective pollution prevention and waste minimization programs in order to reduce, reuse and recycle materials.*
- *Maintain pollution free campus with proper utilization of available space for tree plantations and good drainage system.*
- *Establish composite unit in the campus.*
- *Participate in Green Campus Award.*

*The Institute shall continuously review and update the approved policy and is committed to its implementation.*

### **15. Prakruthi- The Environmental Club of**



**LBRCE**



*“Prakruthi- The Environmental Club of LBRCE” was formed on 18th June of 2018 with its goal to promote environmental awareness on issues like protection, conservation, preservation, restoration; and help students and staff to make sustainable development integral to their daily lives, both within the college and out of it with an emphasis on educating and empowering them. Prakruthi is a voluntary club comprising students that aims to create environmental awareness within the college and a larger community. The club undertakes various activities such as tree plantation, creating innovative eco-friendly products from used products, creating wealth from waste as well as sharing recycling techniques. The club organizes expert talks, panel discussions on critical issues related to environmental education and sustainable development. It also conducts various competitions and commemorative events for students of the college as well as other colleges.*

*Students who are interested in environmental advocacy and awareness are encouraged to join. The programmes organized by the club are in alignment with vision, mission and values of the institution, Lakireddy Bali Reddy College of Engineering.*

### **15.1 Objectives**

- To raise awareness among students on various environmental issues.*
- To instill a sense of responsibility towards the environment and its sustainability among all stakeholders, while making it a personal commitment to protect and preserve the environment.*
- To help students and staff nurture empathy towards ecology and take genuine interest in environment protection.*
- To help the community in assessing environmental issues and developing suitable mechanisms to address such issue*
- To monitor the progress of various initiated actions/activities and consistently evaluate the work of the club as per its objectives.*

- *To provide students opportunities to be actively involved in resolution of environmental problems.*

### ***15.2 Outcomes***

- *Apply the knowledge of environmental issues to arrive at some inherent solution for general ecological problems.*
- *Apply ethical principles and commit to responsibilities towards the protection of environment.*
- *Create, select and apply the appropriate techniques and resources to address the environmental conflicts.*
- *Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.*
- *Apply reasoning informed by the contextual knowledge to assess societal, health, safety and environmental issues and the consequent responsibilities relevant to the sustainable practices.*



**16. PRAKRUTHI – THE ENVIRONMENTAL CLUB MEMBERS OF LBRCE**

**16.1 Mentors of Prakruthi Club**

*Dr. Shaheda Niloufer*

*Sr. Asst Professor*

*Ms V. Bhagya Lakshmi*

*Asst Professor*

**Table 4: Members of Prakruthi Club for Academic year 2018-19**

<b>Academic year</b>	<b>Name</b>	<b>Regd No</b>	<b>Branch</b>	<b>Role</b>
<b>2018-19</b>	<i>D Sai Naresh</i>	<i>15761A0316</i>	<i>MECH</i>	<i>Central Coordinator</i>
	<i>A Lokesh</i>	<i>17761A0560</i>	<i>CSE</i>	<i>Dept. Coordinator</i>
	<i>G Hemanth</i>	<i>17761E0078</i>	<i>MBA</i>	<i>Dept. Coordinator</i>
	<i>A Jagadeesh</i>	<i>16761A1211</i>	<i>IT</i>	<i>Dept. Coordinator</i>
	<i>B Umamaheshwari</i>	<i>16761A0465</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>N Siva Haritha</i>	<i>15761A1030</i>	<i>EIE</i>	<i>Dept. Coordinator</i>
	<i>M S K N Praneeth</i>	<i>16761A03A6</i>	<i>MECH</i>	<i>Dept. Coordinator</i>
	<i>R Siva Teja</i>	<i>15761A2137</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
<b>2019-20</b>	<i>Cheripalli Gayathri</i>	<i>17761A04C8</i>	<i>ECE</i>	<i>Central Coordinator</i>
	<i>A Lokesh</i>	<i>17761A0560</i>	<i>CSE</i>	<i>Dept. Coordinator</i>
	<i>D. Jobin</i>	<i>18761A2115</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
	<i>R. Suresh</i>	<i>19765A2106</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
	<i>S. Dinesh Reddy</i>	<i>18761A2147</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
	<i>K. Bhagya</i>	<i>18765A0419</i>	<i>MECH</i>	<i>Dept. Coordinator</i>
	<i>D. Mounica</i>	<i>18765A0427</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>K. Pravallika</i>	<i>18765A0429</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>G. Sowmya</i>	<i>18765A0428</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>T. Venispanandana</i>	<i>18765A0439</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>Gudipati Padmaja Nirmala</i>	<i>18761A0413</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>A Jagadeesh</i>	<i>16761A1211</i>	<i>IT</i>	<i>Dept. Coordinator</i>
	<i>B Umamaheshwari</i>	<i>16761A0465</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
	<i>K Poojitha Gayathri</i>	<i>18761A0228</i>	<i>EEE</i>	<i>Dept. Coordinator</i>
	<i>N Siva Haritha</i>	<i>15761A1030</i>	<i>EIE</i>	<i>Dept. Coordinator</i>
<i>M S K N Praneeth</i>	<i>16761A03A6</i>	<i>MECH</i>	<i>Dept. Coordinator</i>	
<i>R Siva Teja</i>	<i>15761A2137</i>	<i>ASE</i>	<i>Dept. Coordinator</i>	
<b>2020-21</b>	<i>Cheripalli Gayathri</i>	<i>17761A04C8</i>	<i>ECE</i>	<i>Central Coordinator</i>

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<i>K. Hemanth Kumar</i>	<i>18761A0528</i>	<i>CSE</i>	<i>Dept. Coordinator</i>
<i>A Lokesh</i>	<i>17761A0560</i>	<i>CSE</i>	<i>Dept. Coordinator</i>
<i>D.Jobin</i>	<i>18761A2115</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
<i>R. Suresh</i>	<i>19765A2106</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
<i>S. Dinesh Reddy</i>	<i>18761A2147</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
<i>K. Bhagya</i>	<i>18765A0419</i>	<i>MECH</i>	<i>Dept. Coordinator</i>
<i>D.Mounica</i>	<i>18765A0427</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>K. Pravallika</i>	<i>18765A0429</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>G. Sowmya</i>	<i>18765A0428</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>T. Venispandana</i>	<i>18765A0439</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>Gudipati Padmaja Nirmala</i>	<i>18761A0413</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>A Jagadeesh</i>	<i>16761A1211</i>	<i>IT</i>	<i>Dept. Coordinator</i>
<i>B Umamaheshwari</i>	<i>16761A0465</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>K Poojitha Gayathri</i>	<i>18761A0228</i>	<i>EEE</i>	<i>Dept. Coordinator</i>
<i>N Siva Haritha</i>	<i>15761A1030</i>	<i>EIE</i>	<i>Dept. Coordinator</i>
<i>M S K N Praneeth</i>	<i>16761A03A6</i>	<i>MECH</i>	<i>Dept. Coordinator</i>
<i>R Siva Teja</i>	<i>15761A2137</i>	<i>ASE</i>	<i>Dept. Coordinator</i>
<i>D Geetha Bhavani</i>	<i>18761A0471</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>G Ujwala Devi</i>	<i>18761A0475</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>K Spandana</i>	<i>18761A0483</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>K Swathi</i>	<i>18761A0485</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>M Nikita</i>	<i>18761A0493</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>O Sudheer Kumar</i>	<i>18761A0495</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>P Venkata Naga Sai Tejeswar</i>	<i>18761A04A0</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>R Bhargava Ramudu</i>	<i>18761A04A2</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>S Satya Narayana Reddy</i>	<i>18761A04A4</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>V Venkata Ranga Sai</i>	<i>18761A04B1</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>V Bhargava</i>	<i>18761A04B4</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>Y Naredla</i>	<i>18761A04B6</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>Y Siva Sai Vardhan Reddy</i>	<i>18761A04B7</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>Fransis Mary Mounika</i>	<i>19765A0408</i>	<i>ECE</i>	<i>Dept. Coordinator</i>
<i>J Rajesh</i>	<i>19765A0410</i>	<i>ECE</i>	<i>Dept. Coordinator</i>







**Figure 66:** Few bags were given to the managing trust members of Lakireddy Bali Reddy College of Engineering and requested them to adopt green practices by Mentors of the club on August 15<sup>th</sup> 2018.



**Figure 67:** A Poster presentation was conducted by students of LBRCE on occasion of International Ozone Week on 20<sup>th</sup> September 2018.



**Figure 68:** An awareness skit was performed by the students as a part of cultural events during NAAC visit on 20<sup>th</sup> September, 2018.



**Figure 69:** Best out of Waste on the occasion of Lakshya-2K18 in association with ITC on 27<sup>th</sup> December, 2018



**Figure 70:** The NSS of LBRCE in association with Prakruthi- The Environmental club of LBRCE conducted an event on National Science Day, wherein various school children in and around Mylavaram were invited to present their science projects out of which, environment themed projects were be given a special recognition at the college by the club on 28<sup>th</sup> February, 2019.

2019-20



**Figure 71:** Prakruthi – The Environmental Club of LBCE and NSS in association with APSCHE and Integrated Rural Development Association (IRDA) conducted a rally on “Environmental Protection on recycling the waste and used paper and books etc” as part of awareness program to students of Universities and affiliated colleges on 29<sup>th</sup> June, 2019.

*The major objective was to create awareness among the student for Environmental protection regarding the recycling of waste in the campus. Around 100 students from all the branches of Lakireddy Bali Reddy College of Engineering made active participation in the rally. Teachers played a supporting role to the students in the rally. The rally was started by holding placards and continued by shouting slogans. The rally spread the message to maintain greenery and also clean surroundings by recycling waste in the campus and also in the society.*



**Figure 72:** *Prakruthi – The Environmental Club of LBRCE in association with CSR, ITC and Academy of Gandhian studies conducted WOW (Wellbeing out of Waste) Program on 16<sup>th</sup> July, 2019 for second year B.Tech students in the campus. The major objective is to educate students and people on recycling of the waste to protect environment, conserve the natural resources, inculcate the habit of source segregation among the students and society and recover the dry recyclable waste which is going into the landfill and make it available for recycling*



**Figure 73:** *Azolla and Oyster Mushroom cultivation in LBRCE in association with Incubation and Innovation Centre on 30<sup>th</sup> August, 2019*  
*Uploaded Youtube Videos made by student as a part of Swachh Andhra Mission – Plastic Waste Free Campaign on 11<sup>th</sup> of September, 2019.*





**Figure 74:** An Awareness program on World Ozone Week in association with NSS of LBRCE with resource person Dr. K. Venkat Reddy On 18<sup>th</sup> of September 2019



**Figure 75:** Milky Mushroom cultivation in LBRCE in association with Incubation and Innovation Centre for two days i.e. 15<sup>th</sup> and 16<sup>th</sup> October, 2019

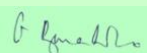
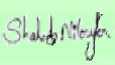


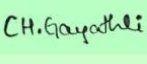
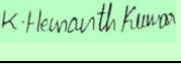
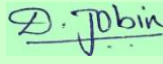


**Figure 76:** A Herbal Stall was arranged with title “Medicinal Plants for Health and Wellness” as a part of Lakshya 2K19 on 21<sup>st</sup> of December, 2019.

Organized an expert talk on “Cluster Composting by ITC mission - SunehraKal – Bangaru Bhavishyattu” by T. Narayana, Guntur Urban Solid waste management project officer, finish society under Swachha Bharat Mission at Lakireddy Bali Reddy College of Engineering on 8<sup>th</sup> December, 2020

Poster presentation on 1. Wetland Conservation  
2. Importance of Wetlands and 3. Role of every individual in the conservation of Wetlands and its biodiversity  
On 2<sup>nd</sup> February, 2021

*Signatures of Internal Green Audit Committee*

<i>S.No</i>	<i>Name of the Faculty</i>	<i>Department</i>	<i>Signatures</i>
1	<b>Dr. V. Ramakrishna</b> <i>Prof. &amp; HoD, Department of Civil Engineering</i>	<i>Coordinator</i>	
2	<b>Dr. Shaheda Niloufer</b> <i>Sr.Asst. Prof., Freshman Engineering Department</i>	<i>Coordinator</i>	
3	<b>V. Bhagya Lakshmi</b> <i>Asst. Prof., Freshman Engineering Department</i>	<i>Coordinator</i>	
4	<b>V. Harish Kumar</b> <i>Asst. Prof., Department of Civil Engineering</i>	<i>Faculty Member</i>	
5	<b>Cheripalli Gayathri (ECE)</b>	<i>Student Member</i>	
6	<b>K. Hemanth Kumar (CSE)</b>	<i>Student Member</i>	
7	<b>D. Jobin (ASE)</b>	<i>Student Member</i>	

*Signatures of external Green audit member*

<i>S.No</i>	<i>Name of the External Audit Member</i>	<i>Designation &amp; Department</i>	<i>Signature</i>
1	<b>Dr. A V V S Swamy</b>	<i>HoD, Dept of Environmental Sciences, Acharya Nagarjuna University, Member, CFO committee, APPCB., AMARAVATHI Director, CEED, AP, India.</i>	