



# Green Audit Report



**Academic Year 2020 – 21**  
**(November, 2021)**



# Green Audit Report



## CERTIFICATE


The Green, Environment and Energy audit report for the year 2020-21 is submitted to Adikavi Nannaya University.

Following the methodology as the earlier study, the study comprised three major parameters:

- Environmental audit
- Energy audit
- Waste management audit

Focusing primarily on green campus inventory, plantation and other environmental safety activities, water and waste management strategies undertaken, and the energy conservation processes employed in the three campuses of the University.

The auditing process was executed with help from the Internal Green Audit Committee, by personal consultation, physical verification, and interviewing the in-charges / heads. Further, the study verified for the implementation of the necessary recommendations submitted in the earlier report. Such changes were noted and documented in the present report along with some recommendations and suggestions for future growth.

  
Alapati Sivainab  
Lead Auditor

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# Green Audit Report

## Green Audit Internal Committee

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# Green Audit Report

## TABLE OF CONTENTS

S. No.	CONTENT	PAGE NUMBER
	Table of Contents	3
1	Introduction	4-5
2	About the University	5-15
2.1	Methodology	15-16
2.1.1	Environment	16-25
2.1.2	Water	25-26
2.1.3	Energy	26-35
2.1.4	Waste	35
2.1.4.1	Effluent	35-36
2.1.4.2	Sewage	36-37
2.1.4.3	Solid waste	37-38
2.1.4.4	E-waste	38-41
2.1.5	Other Environmental Initiatives	41-47
2.1.6	Institutional Carbon Footprinting	47-48
3	About the MSN Kakinada Campus	49-50
3.1	Action Plan	50
3.1.1	Environment	50-51
3.1.2	Water	51-52
3.1.3	Energy	52
3.1.4	Waste	52
3.1.4.1	Effluent	52-53
3.1.4.2	Solid waste	53
3.1.4.3	E-waste	53-54
4	About Tadepalligudem Campus	55-58
4.1	Action Plan	58-59
4.1.1	Environment	59-60
4.1.2	Water	60
4.1.3	Energy	60-61
4.1.4	Waste	61
4.1.4.1	Effluent	61-62
4.1.4.2	Solid waste	62
4.1.4.3	E-waste	62
4.1.5	Carbon neutrality	62-63



# Green Audit Report

## 1. INTRODUCTION

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyze environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience.

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 carbon-di-oxide 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.

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. Many institutions undertake lot of good measures to resolve these problems but are not documented due to lack of green documentation awareness. All this non-scholastic efforts of the administrations play an important role in ensuring the green quotient of the campus is intact.

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.

Main Objective of Green Audit;

- ✓ Geographical Location
- ✓ Floral and Faunal diversity
- ✓ Meteorological parameter
- ✓ Energy Consumptions





# Green Audit Report

- ✓ Waste disposal system
- ✓ Ambient Environmental Condition
- ✓ Awareness & Training on Sustainability for Students

## 2. ABOUT THE UNIVERSITY

Adikavi Nannaya University was established on 22nd April 2006, by an Act of the Andhra Pradesh State Legislative Assembly, on the sacred banks of River Godavari, to fulfil the cherished dream of this region.



The University started functioning from a small two storied building allocated in the Government College, Rajahmundry. It moved to the present campus in 2014 with the entrance archway designed in the iconic Chalukya architecture. It is an affiliating University with territorial jurisdiction over East & West Godavari districts of Andhra Pradesh. It is named after the eleventh century poet of Telugu literature, Nannaya, who



# Green Audit Report

was conferred the prestigious Title of 'Adikavi' meaning *the first poet*, for his effort to translate the sacred epic of Mahabharata to Telugu language.



The University consists of four colleges in main campus namely - University College of Arts & Commerce, University College of Engineering, University College of Education and University College of Science & Technology. The two colleges at Kakinada (EG District) – MSN Campus and Tadepalligudem (WG District) campus, which were under the Andhra University, were merged under the Adikavi Nannaya University jurisdiction in 2017. Presently, Adikavi Nannaya University is the largest University in the state of Andhra Pradesh, with nearly 450 affiliating colleges. A dynamic semester-based course structure is created by integrating the traditional with the contemporary framework, to suit the industrial, entrepreneurial, employable and professional requirements Choice Based Credit System (CBCS) is being implemented for all UG, PG and Professional Courses across the University. Highly qualified faculty are on the path to establish a strong research base and culture of innovation with their expertise on their respective subject domains. A large number of National and International conferences, seminars and workshops are organized regularly. It is credited with a record of 100 plus webinars conducted, the highest record number in the State of Andhra Pradesh, in the Corona Pandemic situation. This achievement found a place in the Asia Book of records and the



# Green Audit Report

Indian Book of records. The faculty members are very active in research and publish their work in good impact journals.

Spread across a sprawling 97 acres of land, the ambience of pristine campus projects a vibrant atmosphere, with a moderate and pleasant climate throughout the year. It is 17km from the railway station; 18km from Airport; and 12km from the Bus station. Its good connectivity with air, rail and road, is an easy access for the students across Andhra Pradesh, India and abroad.

## **Vision & Mission:**

The University aims to combine the pristine cultural ethos and the contemporary demands of educational excellence in its vision. To uphold the simple but profound motto, '**Sarvatra Vidyaya Vardhate Praja**' - Education, universally, enhances the prosperity of the society, Adikavi Nannaya University nurtures its students as the citizens of the globe on the rich fundamentals of Indian culture while respecting all its diverse ideas. The University is committed to achieve its mission through outstanding research and scholarship, education and practice by free exchange of ideas with the support of its ethical, interdependent, diverse community of faculty, staff, students and alumni.

## **CAMPUS INFRASTRUCTURE**

The university consists of four colleges in main campus namely - University College of Arts & Commerce, University College of Engineering, University College of Education and University College of Science & Technology catering to the needs of the students on campus. The Adikavi Nannaya University is having extension campuses at Kakinada (EG District) and Tadepalligudem (WG District). It is the largest University in the state of Andhra Pradesh, affiliating nearly 450 colleges. A dynamic semester-based courseware is created by integrating the traditional syllabus with the latest trends across disciplines to suit the current industry, employability and professional requirements. Choice based





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Credit System (CBCS) is being implemented for all UG, PG and professional Courses across the University. The university is on the path to establish a strong research base and culture of innovation.

University College of Arts and Commerce was separated from University College of Arts, Science and Commerce in 2012, with eight departments, viz., Commerce, Management Studies, English, Telugu, Economics, Social Work, Political Science and Psychology.

University College of Engineering, recognized by AICTE, has four branches namely Computer Science and Engineering (CSE), Electronics and Communications Engineering (ECE), Civil Engineering (CE) & Mechanical Engineering (ME) with 60 students per branch. Also the college runs EIE and IT branches for II/III/IV year B.Tech, and MCA.

The UG and PG courses are interdisciplinary in nature thereby enhancing the employment and research opportunities for the students. The courseware for B.Tech, and MCA is designed in CBCS pattern wherein the student has the freedom to choose any subject of interest.

The courses are framed keeping in mind the dynamic needs of the industry. Prime importance is given to hands-on experience and practical knowledge of the subjects to ensure smooth transition from education to job for the students. University College of Engineering is a promising gateway to knowledge, growth and opportunity.

The University College of Education was established in 2014, recognized by the National Council for Teacher Education, Bangalore, with an annual intake of 100 students. However, with the new regulations of NCTE, annual intake is now 50. The mode of admission is through the Education Common Entrance Test (APEDCET) conducted by Government of Andhra Pradesh. The college is focused on skilled Teacher quality and the strengthening the educator's leadership. M.P.Ed course was established in the academic year 2017-18 in order to cater the needs of Physical Education very particularly the need of UG Physical Education Colleges.



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## FACILITIES

### **Library:**

The University has a Central library building named after the Chairman of the Constitution Drafting Committee of the Nation, Babasaheb Dr. Bhim Rao Ambedkar. It started functioning in 2006 with a minimum collection of 100 books with open access system. The iconic building spread over three floors, today boasts of over 100000 books and other resources necessary for students and scholars. Besides the work and stock areas of Library, there are multiple reading rooms provided for the students and scholars. One of these reading rooms, located on the ground floor, is open 24/7 for the resident students. Subject wise book racks and aisles are provided for browsing and reference work. Subscriptions to journals in domain subjects account to about 1200 journals. Library subscribes to the digital resources through JGATE and JSTOR portals providing access to over 12 Million e-resources for journals, proceedings and e-books. The Library is also being digitized using SOUL software.

### **FEATURES:**

- ✓ Spacious, naturally lit, state-of-the-art design of the Library.
- ✓ 24/7 Reading Rooms for in-campus academic community
- ✓ Unlimited access to JGATE and JSTOR for research scholars and faculty
- ✓ Wi-Fi enabled amenities.
- ✓ Digitalized processes of bookkeeping.

### **Open E-Databases:**

- ✓ National Digital Library
- ✓ Directory of Open Access Books
- ✓ Directory of Open Access Journals
- ✓ e-PG Pathshala
- ✓ Oxford Open
- ✓ Cambridge University Press



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- ✓ Science Direct
- ✓ Springer Open Journals
- ✓ Taylor & Francis Open Access
- ✓ Open Access Thesis & Dissertations
- ✓ PubMed Central (PMC)

## TIMINGS:

- ✓ 24/7 reading room facility
- ✓ working days 08:00 AM to 8:00 PM.
- ✓ Second Saturdays & Sundays 10:00 AM to 01:00 PM.
- ✓ Summer Vacations 08:00 AM to 01:00 PM.
- ✓ The Library remains closed on Public holidays
- ✓ Circulation Counter (issue/ return) Works from 10:00 AM to 05: 30 PM

## Hostels

### Men's Hostel - The Halls of Residence for Men



A building comprising of 36 rooms and 2 halls accommodates about 200 students of Arts, Science & Technology and Engineering colleges. It has a spacious kitchen of 2 large



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rooms, 3 store rooms for vegetables, groceries and the kitchware respectively; 2 large steam bath/ cookers and a well ventilated, fully-furnished dining hall that serves 100 members at once.

Each floor has two clusters of Restrooms and Wash rooms on either ends of corridors that are hygienically maintained. The sewage collects in the septic tanks and the bath waste is left to run out into the open in the grounds from the drain pipes.

The source of water is from the University bore-well for both washing and bathing. An RO plant of 500 liter capacity assembled in the hostel premises fulfills the drinking water needs of the resident students.

The conventional electrical bulbs/ tube lights have been replaced recently with LED bulbs to cut down on the bills/ electrical consumption.

## **International Guest House/ Hostel**



The three floored International Guest House has been converted into Boys Hostel since 2019, to provide for the increasing need to accommodate all the students. Presently 311





# Green Audit Report

students are residing in 36 rooms with attached washrooms. The resident students have to dine at the Halls of residence for Men.

The electrical bulbs have recently been changed to LED bulbs for cutting down on the consumption and bills.

The waste rice from the hostel is collected by a private person with a pigsty to feed the pigs. The waste is thrown out in the open grounds to degrade naturally.

## **Women's Hostel - Halls of Residence for Women**







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A three storied building with four wings and residnet rooms on all four sides of a central court yard, accomodates about 500-600 women students of the Arts, Science and Engineering Colleges. Each floor has two clusters of Rest rooms and Wash rooms on wither ends of the corridor, that are washed and cleaned regularly.

A resident warden is aso designated to take care of day to day monitoring and any emergencies during the nights with a night nurse for nederal emergencies. A spacious kitchen is attached to storage and utility areas which are well kept. The neatness of the serving platforms is regularly monitored. The big dining hall can accommodate 100-200 members at once.

In women's hostel, a common room is facilitated with Television facility

In the Ladies Hostels badminton courts and Yoga/Game facilities are provided.

Waiting Rooms/Halls are provided

All the hostels have convalescing rooms for the sick students.

## **Sports**

M.P.Ed course was established in the year 2017. The academic program is 2 years long. Each academic year is divided into two semesters. Thus the entire academic program consists of 4 semesters. The course comprises of subjects such as – sports science, sports medicine, sports psychology, exercise physiology, communication skills and practical training, with classroom theory sessions and practical training in sports grounds. The main aim of this course is to bring out world class sports instructors, coaches and physical education teachers.

The sports grounds have courts for volleyball, basketball, cricket nets for outdoor sports, table tennis and carom board for indoor games. 2hours per week of Sports is allotted in the Time Table for every course in the University. Inter Mural competitions are conducted



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regularly for students. Competitions for faculty are also conducted once in a year on special occasions like Teachers' Day and Women's Day.

## Health Centre



A building for Health Centre was donated by Mrs. and Dr. Sunkara Venkateswara Rao, named after their late son as Dr. Vinay Sunkara Memorial Health Centre. It has been functional since April, 2015 with one visiting male Doctor and a female Nurse during the day hours.

This building is provided with a Doctor's consultation room with attached toilet; a room with attached toilet for Nurse; a room for medicines; 2 sick rooms with attached toilets - one each for the male and female patients; and 2 wards with one toilet each - one each for the male and female patients; and one OP (outpatient) room. The health center is equipped with BP apparatus; stethoscope, weighing machine, nebulizer machine, sugar testing kit and a thermometer.

Treatments for minor sickness viz., fever, cold, nausea/ vomiting, diarrhea/ dysentery, asthma, BP and diabetes are being provided at the center. The medical care for inpatients rarely arises as the student/ patient is immediately taken to GSL Hospital across the road for any major medical interventions.



# Green Audit Report

Vinoothna, an innovative initiative by the Psychology alumni association – SPRUHA, and open air interactive discussions on motivational counselling including Nature vs. Nurture, pleasure to perform with an underlined mission of training students communication skills, self-development and self-regulation. In the first phase 12 benches worth Rs. 40,000/- were donated for this purpose. SPRUHA also initiated a Centre for Psychological Assessment and Counselling (CPAC).

## **2.1 METHODOLOGY**

This audit mainly focused on green indicators such as Environmental audit, water, energy, waste management practices, the carbon footprint and Biodiversity (Flora and fauna). It was compiled in association with the Faculty of Botany, with physical inspection, review with the respective departments / offices, interviewing the in-charges, and proposing the necessary recommendations. The study is reported under the following heads:

### **ENVIRONMENTAL AUDIT (GO GREEN)**

#### **ENERGY AUDIT**

#### **WASTE MANAGEMENT AUDIT**

#### **Environmental Audit**

Maintaining a pleasant and clean environment is the foundation for a healthy atmosphere in the campus and well-being of student and teaching community. The environmental audit focuses on

- a) What factors can improve the biodiversity in and around the campus
- b) What is the impact of the construction or other developmental activities on the land use resources, floral and faunal composition or diversity



# Green Audit Report

- c) Does the campus have initiatives to improve carbon neutrality.
- d) Monitoring the increase of the campus greening
- e) Sensitization programs organized for the staff and students of the University

## **Energy Audit**

In the energy Audit, monitoring of the monthly electrical energy usage will help in understanding where electricity can be saved in the campus and explore scope for application of alternative energy.

## **Waste management Audit**

Hazardous waste is waste that is likely to be a threat to health or the environment. In the campus this audit deserves primary attention as many harmful chemical wastes are produced from the laboratories of various science departments and also solid waste that is generated from the Hostels, Canteen, the scrap and junk from administrative sections.

Identifying the source of plastic waste, and its proper disposal is prioritized in the audit. E-waste generated and its management is also a major aspect of the waste audit.

### **2.1.1. Environment**

The sprawling 97 acres of campus away from the urban territory, close to the reserve forest area resembles the wilderness of the past. As the construction activity is not much, the original rugged vegetation - a dry deciduous scrubland with its distinct flora and fauna, is still existent.

The fauna reported existing in the campus include the free moving resident snakes are seen moving freely in the grounds; several seasonal visiting birds, monitor lizards and mongoose; a star backed Turtle, categorized as threatened species in India, is reportedly



# Green Audit Report

rescued and handed over to the custody of Forest wildlife authorities; not to mention other wild common animals and insects.

The vegetation is a mixed community of herbs, shrubs and trees (wild and planted) indicative of a dry deciduous sub-tropical grassland. The composition of the plant community exhibits seasonal variations and 250 species with 200+ genera belonging to 65 different families were recorded in total during the winter – fall season of the year. 224 plant species are of dicots and 26 varieties belong to the monocot families. Amongst these 250 types, 231 species are naturally growing which include 52 trees; and 30 are planted for avenue and ornamental purpose. The highest proportion of species belong to the family Fabaceae. Major component is herbaceous scrubs, with medicinal values and ecological functions. 6 of the plant species are of the vulnerable category of threat with medicinal values found growing naturally in the campus. 12 wild relatives of crop plants, 34 wild edible leafy vegetables have been identified.

A large scale plantation activity under Haritha Vanam program was conducted in 2017, of more than 2000 plants, supplied by the AP Forest Department, along the boundaries of the campus consisting of *Butea monosperma*, *Terminalia arjuna*, *Pterocarpus santinilus*, *Tectona grandis*;





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Vanam Manam – A Mass Plantation of 2500 Saplings by Staff and Students in the University Campus conducted on 11.8.2017.



Principal Chief Conservator of Forests for Andhra Pradesh, Sri P.K. Sarangi, was the Chief Guest, accompanied by DFOs Nandini and Prasuna





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Students and Faculty of Botany at Vanam Manam Plantation in the allotted sector - 11.8.17



Students and Faculty of Mathematics doing Vanam Manam Plantation in the allotted sector







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Vanam Manam Plantation initiated by Hon'ble Vice Chancellor Prof. Murru Mutyalu Naidu



Faculty and Students of English at Vanam Manam Plantation in their allotted sector – 11.8.17





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Students and Faculty of Physics doing Vanam Manam Plantation in the allotted sector



Principal, Faculty and Students of University College of Education at Vanam Manam Plantation





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- Avenue plantation, beautification with maintenance of the plants – *Mimusops elangi*, *Millingtonia hortensis*, was taken up by the Urban Green Development Corporation
- Two plots of land with drip irrigation and fencing were provided to establish Miyawaki plantation by the Regional Forest Department in 2020 during the Covid 19 lockdown period.
- Other plantation activities are conducted by NSS and Youth Red Cross teams. SBI planted Indian almond and *Pongamia* around the NTR Convention Centre, Health Centre, BR Ambedkar Central Library, along the street leading to the Women's Hostel.
- One period per week is allotted for swachchata activity in the Time Table, to instill a habit to protect nature, for which 10 marks added in the internal assessment for the students.
- NSS conducted several awareness and swachchata activities in the campus





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ADIKAVI NANNAYA UNIVERSITY :: RAJAMAHENDRAVARAM  
NATIONAL SERVICE SCHEME

Rajah Rajah Narendra Nagar, NH-16, Rajamahendravaram -533 296, AP India



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[drkrbadhiti@gmail.com](mailto:drkrbadhiti@gmail.com)

## CIRCULAR

Date: 25.06.2019.

The NSS Cell in collaboration with IRDA is conducting Waste Management programs. In this connection, the NSS Cell is collecting waste from every department. In this regard, I request to cooperate with the NSS Volunteers while collecting the waste from your respective departments.

  
(B. KEZIA RANI)  
Programme Co-ordinator  
NATIONAL SERVICE SCHEME  
Adikavi Nannaya University  
RAJAHMUNDRY

Copy to  
All the Principals Offices  
All the Deans  
All the Head's of the Departments  
PS to VC  
PA to Rector  
PA to Registrar  
OOF





Registrar

ADIKAVI NANNAYA UNIVERSITY  
RAJAMAHENDRAVARAM-533 296. E.G.DL, A.P. India



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 **ADIKAVI NANNAYA UNIVERSITY :: RAJAMAHENDRAVARAM**  
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Dr. B. KEZIA RANI, MCA, Ph.D  
Programme Coordinator

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**CIRCULAR**

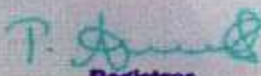
Date: 17.06.2019.

The NSS Cell in collaboration with IRDA (Integrated Rural Development Association) is organizing the awareness programmes on Environment Protection. In this connection, the NSS Cell is organizing following competitions for the students. All the students who are willing to participate are requested to register their names in the NSS Cell Office, Admin Block by 19.06.2019.

**List of Events:**

- 1. Essay Writing**
  1. Beat Air Pollution
  2. Beat Plastic Pollution
  3. Think. Eat. Save
  4. Green Economy
  5. Water: Vital Resource for Life
  6. Ground Water, Toxic Chemicals in Human Food Chains
- 2. Eloquution**
  1. Reduce and prevent the illegal trade in wildlife
  2. "Seven Billion Dreams. One Planet. Consume with Care"
  3. Global warming and its impact on Ocean levels
  4. 'Many Species. One Planet. One Future'
  5. Ozone Layer Environmental Concern
  6. For Life on Earth
- 3. Debate**
  1. Forests-Nature at your service
  2. 'Your Planet Needs You - Unite to Combat Climate Change'
  3. A New Challenge for the New Decade: Development without Destruction
  4. Youth: Population and the Environment
- 4. Quiz**

Topic: Science and Environment

  
**Registrar**  
**ADIKAVI NANNAYA UNIVERSITY**  
RAJAMAHENDRAVARAM 533 296, E.G.D., A.P.

Cont - 2

40



# Green Audit Report

## Recommendations

- Avenue plantations along each street with local varieties can be taken up to augment the beauty, ambience and most importantly the plant diversity which supports insect and bird diversity; for reducing pollution, high oxygen production, shade giving and is suggested in the remaining pathways.
- Eco-friendly, sustainable buildings are suggested in the future expansions to protect the rare, threatened, vulnerable species, the land races, the wild relatives of plants, and the related faunal species that the campus is inhabited with.
- The landscaping and beautification plantations should include only endemic, local pollinator friendly, non-invasive, and non-exotic species
- Student clubs on Nature protection and waste management can be constituted to inculcate the spirit of responsibility for a sustainable future.

## 2.1.2. Water

### Sources

The University is presently having 3 hostels accommodating around 1200 students. The campus has an administrative building and college building with staff of around 500 members. Students attending the classes in the campus daily would be over 2000.

The University consists of 2 bore wells each with 20 hp pumping motors, which is the primary source of water supply. Raw water of nearly 2 lakh liters is utilized for daily needs in the campus.

All the buildings of the University are installed with RO plants for pure drinking water. The water quality is periodically tested in the laboratory as part of their curriculum in terms of a few chemical constituents and Dissolved O<sub>2</sub>.

### WATER HARVESTING:



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A water harvesting pond spread over 2 acres stores water up to 2 crore liters. This water is utilized for construction activities and watering plants.

A total of 43 water recharge wells were created in the campus for collecting and storing the rooftop rain water. The size of these pits is 10 feet deep and 3 feet diameter. 12 wells are instituted in Science / Engineering College; 11 in Administrative block; 8 in Women's hostel; 4 each in Men's hostel, International Guest house and Library.

## **Recommendations**

- Rooftop rainwater harvesting can be used for drinking by advanced water treatments and sanitary purposes.
- Specific efforts for conservation of fresh water through auto water taps based on occupancy sensing mechanism.

### **2.1.3. Energy**

#### **Energy Source**

The University is presently receiving a power load of 100 KVA from the APEPDCL. A 40 KVAR Kirloskar diesel generator is used in the administrative block as a backup during power breakdowns.

#### ENERGY SAVING METHODS ADOPTED:

Rooftop Solar Power plant was established in 2019 as an alternative source of energy.





# Green Audit Report

## ADIKAVI NANNAYA UNIVERSITY:: RAJAMAHENDRAVARAM ANDHRA PRADESH

Prof. T. ASHOK, Ph.d



Telephone : 0883-2566004,  
Fax: 0883- 2483135  
E-mail: registrannannaya@gmail.com

Registrar

### WORK ORDER

Date: 23.09.2017

To:  
**M/s. Shri Lakshmi Ganapathi Solar Systems,**  
H.No.4-91/3, Plot No.129-130, Sy. No. 215, Near Mother Dairy,  
Road No.6, Shivareddy Nagar, Hayathnagar,  
Rang Reddy District - 501515

### Work Order No: 01/28/UE/ANUR, dated: 23.09.2017

**Sub:** Design, Supply, Installation and Commissioning of 400KWp Rooftop SPV System at Adikavi Nannaya University, Rajamahendravaram, East Godavari District, Andhra Pradesh

- Ref:**
1. Your Expression of Interest-cum-Technical Proposal dated 10.02.2017
  2. This office Letter No. A.VII/ANUR/SOLAR SYSTEMS/2016-17, dated 14.02.2017
  3. Letter No. NREDCAP/OSD/NM/42-94/2017, dated 22.02.2017 of VC & MD, NREDCAP
  4. Approval of the EC (Item No.11 of 29<sup>th</sup> Meeting), dated 31.07.2017
  5. VC Proceedings No. ANUR/29<sup>th</sup> EC/2017/11 dated 08.08.2017

\*\*\*

With reference to the above, taking into consideration of your Technical Proposal dated 10.02.2017 the Work Order is hereby awarded to you for Design, Supply, Installation and Commissioning of 400 KWp Rooftop SPV System at Adikavi Nannaya University, Rajamahendravaram, East Godavari District, Andhra Pradesh. You are requested to execute the work adhering to the Scope, Terms & Conditions attached in ANNEXURE-I and also as per general conditions/guidelines for Rooftop SPV Systems specified by MNRE / NREDCAP.

Sl.No	Description	Capacity	No. of Systems	Price per Watt Rs.	Total Amount
1	Design, Supply, Installation & Commissioning of 400 KWp Rooftop SPV System	400 KWp	1	65.00	2,60,00,000-00
<b>Total:</b>					<b>2,60,00,000-00</b>
(Rupees Two Crore Sixty lakhs Only)					



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## ADIKAVI NANNAYA UNIVERSITY:: RAJAMAHENDRAVARAM ANDHRA PRADESH

Prof. T. ASHOK, Ph.d



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E-mail: registrarnannaya@gmail.com

Registrar

\* Price as ascertained by NREDCAP Rate Contract

You are requested to execute a working agreement on Rs.100/- non-judicial stamp paper and commence the work immediately.

T. Ashok  
REGISTRAR 23/9/17

A.  
23/9/17

There was a remarkable decrease in the electrical energy consumption as seen from the electricity bills hereunder which give the details of the electrical consumption before and after installation of the Rooftop Solar system



# Green Audit Report

Supplier Name	KWH Share	KVA Share	% Wheeling			
Solar Units	0	2260.000	0			
<b>Billing Summary</b>						
Particulars	Bill Issue Date	KVAH	KVA	TOD PEAK	TOD OFF PEAK	COLONY
Billed Units	05-10-2019	52068	400.000	10442	0.00	0
<b>BILL DETAILS</b>						
Particulars	Units	Rate Per Unit	Amount(Rs.)			
Demand Charges(Normal)	400	0.00	190000			
Demand Charges(Penal)(80%)	0	0.00	0			
Energy Charges(All Units)	52068	0.00	398320.2			
Energy Excess Charges	0		0			
Electricity Duty Charges	54328	0.00	3259.68			
Colony Charges	0	0.00	0			
L&F Charges			0.00			
Energy Charges Including Fuel Cost Adjustment			0.00			
Fuel Surcharge Adjustment			0.00			
True up Charge						
ToD Charges			10442			
ToD Incentive (-)			0			
<b>Sub Total</b>			<b>602021.88</b>			
Customer Charges			1406			
Wheeling Charges			0			
LPF Charges			0			
RKVAH Surcharge Hydel			0			
RKVAH Surcharge Wind			0			
Open Access CSS			0			
ACD Surcharge			0			
Late Payment Charges			0			
Interest on ED			0			
Penal Interest			0			
Transformer Hire Charges			0			
Differential Voltage Surcharges			0			
Load Factor incentive (-)			0			
Short MD Shortfall			0			





# Green Audit Report

<b>Total For The Month</b>	<b>603427.88</b>
TCS	0
TCS_SF	0
25% Rebate ApplDDSFication	0
Ferro Incentive (-)	0
Pooled Cost Adj(-)	0
Net ICD Amt(ICD-TDS)(0-0)(-)	0
Other Credit Adj	0
Loss (or) Gain	0.12
<b>NET BILL</b>	<b>603428</b>
(Previous Years)Arrears before 31- Mar-2019	0.00
(Current Years)Arrears after 01-Apr-2019	0.20
<b>Net Payable Rs.</b>	<b>603428</b>
<small>This is a system generated bill only for information , please refer to the bill issued by SAO of the circle only.</small>	<small>(Rupees Six Lakhs Three Thousand Four Hundred andTwenty Eight Only)</small>









# Green Audit Report

Solar Units		0	27172.000	0			
<b>Billing Summary</b>							
	<b>Particulars</b>	<b>Bill Issue Date</b>	<b>KVAH</b>	<b>KVA</b>	<b>TOD PEAK</b>	<b>TOD OFF PEAK</b>	<b>COLONY</b>
	Billed Units	05-04-2020	10000	400.000	7022	0.00	0
<b>BILL DETAILS</b>							
	<b>Particulars</b>	<b>Units</b>	<b>Rate Per Unit</b>	<b>Amount(Rs.)</b>			
	Demand Charges(Normal)	400	475	190000			
	Demand Charges(Penal)(80%)	0	950	0			
	Energy Charges(All Units)	10000	7.65	76500			
	Energy Excess Charges	0		0			
	Electricity Duty Charges	24366	0.06	1461.96			
	Colony Charges	0	0.00	0			
	L&F Charges			0.00			
	Energy Charges Including Fuel Cost Adjustment			0.00			
	Fuel Surcharge Adjustment			0.00			
	True up Charge						
	ToD Charges			7022			
	ToD Incentive (-)			0			
	<b>Sub Total</b>			<b>274983.96</b>			
	Customer Charges			1406			
	Wheeling Charges			0			
	LPF Charges			0			
	RKVAH Surcharge Hydel			0			
	RKVAH Surcharge Wind			0			
	Open Access CSS			0			
	ACD Surcharge			0			
	Late Payment Charges			0			
	Interest on ED			0			
	Penal Interest			0			
	Transformer Hire Charges			0			
	Differential Voltage Surcharges			0			
	Load Factor incentive (-)			0			
	Short MD Shortfall			0			
	<b>Total For The Month</b>			<b>276389.96</b>			





# Green Audit Report

TCS	0
TCS_SF	0
25% Rebate ApplDDSFication	0
Ferro Incentive (-)	0
Pooled Cost Adj(-)	75043
Net ICD Amt(ICD-TDS)(0-0)(-)	0
Other Credit Adj	0
Loss (or) Gain	0.04
<b>NET BILL</b>	<b>201347</b>
(Previous Years)Arrears before 31- Mar-2019	0.00
(Current Years)Arrears after 01-Apr-2019	0.20
<b>Net Payable Rs.</b>	<b>201347</b>
<small>This is a system generated bill only for information , please refer to the bill issued by SAO of the circle only.</small>	<small>(Rupees Two Lakhs One Thousand Three Hundred andForty Seven Only)</small>

- The wheeling of this solar energy to the Grid proved beneficial during the Covid 19 lockdown period with negligible energy utilization and the excess diverted to the mainstream energy supply – the Grid.



# Green Audit Report

**GOVERNMENT OF ANDHRA PRADESH  
DIRECTORATE OF ELECTRICAL SAFETY**

FROM:  
THE DY. CHIEF ELECTRICAL INSPECTOR  
TO GOVERNMENT: VIJAYAWADA,  
D.NO: 27-16-175, 3<sup>RD</sup> FLOOR,  
MUDDA SUBBAIAH STREET,  
GOVERNOR PET,  
VIJAYAWADA 520 002.

TO:  
M/S THE REGISTRAR,  
ADIKAVI NANNAYA UNIVERSITY,  
NEAR GEIT COLLEGE,  
RAJAMAHENDRAVARAM,  
EAST GODHAVARI DISTRICT.

Lr. No. Dy.C.E.I.G./VJA/TECH/HT/RJY/D.No: /19 Dated: 30-01-2019

Sir,

Sub:- The Electricity Act 2003 and the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010. Electrical Installation of voltage exceeding 650V of M/S THE REGISTRAR, ADIKAVI NANNAYA UNIVERSITY, NEAR GEIT COLLEGE, RAJAMAHENDRAVARAM, EAST GODHAVARI DISTRICT, - Statutory Approval under regulation 43(4) & section 54 of Electricity Act 2003 - Accorded.

Ref:- 1. This office Lr.No:Dy.C.E.I.G./VJA/TECH/RJY/D.No:1312/18Dated:21-12-2018  
2. Inspection dated: 19-01-2019  
3. Your Compliance report received on: 30-01-2019

Under regulation 43(4) of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 and Section 54 of the Electricity Act 2003, the following equipment of your Electrical Installation is approved for energisation.

**AS PER ANNEXURE ENCLOSED**

Under regulation 43(4) of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, any additions or alterations to your above Electrical Installation shall not be connected to supply until and unless the same are approved in writing by this office.

Under regulation 13(4) and 46(7) of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, you are solely responsible for the maintenance of the above installation in such condition as to be free from danger.

list of loads is approved and returned here with.

The above approval is accorded without prejudice to the statutory/mandatory obligations to be fulfilled by you under various other acts /regulations as the case may be and ipso facto does not confer any right to use for any other purpose.



Yours faithfully

*[Handwritten Signature]*  
30/1/19

DEPUTY CHIEF ELECTRICAL INSPECTOR  
TO GOVERNMENT: VIJAYAWADA

Encl: 1. Load list  
2. Test Certificates

1. Copy to the Divisional Engineer/ Operation/ E.P.D.C.L of A.P/RAJAHMUNDRY, for information. The date of release of supply to the above H.T. Installation may be intimated to the Deputy Electrical Inspector, RAJAHMUNDRY Sub-Division for information.
2. Copy to the Deputy Electrical Inspector, RAJAHMUNDRY Sub-Division, for information.





# Green Audit Report

The buildings are designed to be well ventilated with abundant light and free flow of air, having wide Corridors and large windows and door sizes appropriate for proper passage, air circulation and ventilation. Hence the need for Air-Conditioners arises only during the peak summer days - normally closed for vacation. Use of electric bulbs is redundant during the day except on cloudy days saving an enormous quantity of power consumption. The day to day energy utilized in the class rooms would be primarily for the fans, any electrical laboratory equipment, computers and so on.

Use of LED bulbs to reduce the power consumption which in turn saves the energy consumption. All the Air Conditioners present are of 5-star rating, the power saving implements. All the electrical laboratory equipment is energy efficient, operated judiciously and switched-off immediately after use.

## **Recommendations**

- The staff and students can be sensitized towards energy saving methods and educate them to switch off lights and fans when not in use and have posters of save energy stickers placed in all class rooms.
- Occupancy sensors can be developed by the Engineering students to avoid manual intervention in shutting off and starting on the lighting systems in various rooms.

### **2.1.4. Waste**

#### **2.1.4.1. Effluent**

The University has several buildings - The administrative block; College of Science and Technology; a Central Library Building; Convention Centre; Boys Hostel; Girls Hostel; International Guest House; Amenities Centre housing the Bank and Canteen.

The drainages for each of these buildings are connected to Septic Tanks of dimensions 12'L x 6'W x 10'D. One adjoining the Administrative building; two tanks for UCST block; one tank is shared between the Amenities Centre and the International Guest House; two



# Green Audit Report

tanks cater to the Girls Hostel: One tank for the Boys Hostel. Rooftop rainwater drainages are open canals connecting to these Septic Tanks. Laboratory waste waters and other drainages are all connected to the respective tanks through PVC pipes.

**Hazardous chemicals and radioactive waste management:** In Chemistry laboratory solvents are collected in a container with a tight-fitting lid and labeled as hazardous waste. Corrosive liquids, such as strong acids and bases, are disposed as hazardous waste. Hazardous chemicals appropriately with a pH between 5.5 and 10.5, are diluted and disposed through the sinks of the lab.

## Recommendations

- The kitchen effluent water can be utilized by maintaining a kitchen garden in the Hostels
- Since the waste water quantities are very minimal, as of now no specific recommendations are required.

### 2.1.4.2. Sewage

Domestic sewage is generated through the use of water for sanitary purposes. The sewage generated after the use is connected to the respective Septic tanks, with majority collection from the Hostels.

The waste water includes graywater from washbasins, lab basins, pantry and black water from toilets. The gray water of University campus is diverted to be utilized for gardening. Total sanitation management is followed to manage the waste water and use it for irrigating the gardens.

## Recommendations

- Based on the consumption of water for each day and the daily water supply quantities domestic sewage can be quantified for further water conservation purpose.



# Green Audit Report

- Specific water audit can be conducted to know the water inflow and out flow along with the losses, leakages, wastages etc. so as to plan action for water conservation.

### **2.1.4.3. Solid waste**

The University has implemented numerous programs designed to reduce or reuse materials. It includes promoting double sided printing, the creation of green guidelines which minimize waste, packaging material re-use programs and University is moving towards paperless campus by implementing automation. University also had a tie-up with Vasu Industries of Kakinada for the disposal of used answer scripts and scrap items.

Garbage bins are placed at strategic places inside the campus which are regularly cleared by the sanitation department. Sign boards arranged with slogans 'Do not litter' etc., are used at main centers. Adequate number of sweepers and scavengers are appointed to maintain cleanliness in the campus. Waste material is generated by all sorts of routine activities carried out in the University that includes paper, plastics, glass, metals and foods. The administrative supervisor ensures that the waste is collected at designated time intervals. The sanitary workers collect, clean, segregate and compile the waste in the dustbins provided at each floor and dump it in the pits or designated locations for further collection and processing. Orientation is given to Students/Scholars/Staff members to reduce waste generation and to adapt food habits and healthy lifestyle.

Major sources of solid waste are the kitchen wastes in the Hostels, Canteen and office stationary wastes. The leftover and uneaten food waste is collected by a pigsty owner to feed the pigs in case of Men's Hostel, where as it is dumped in the backyard with no specific measure for its recycling and processing in the Women's hostel or the Canteen.

Office stationery waste is sold to the paper vendors through quotations.

### **Recommendations**



# Green Audit Report

- Display of wasted food in the Hostels is recommended, to sensitize and educate the students not to serve themselves excess food
- The leftover food can be handed over to an Old age home / Orphanage to feed the hungry; for economic and environmental benefits
- Setting up of composting units at both the hostels would be useful for generating natural manure from the kitchen waste

## 2.1.4.4. E-Waste

The components and peripherals are generally repaired. The components which are beyond the repair are disposed as scrap for recycling wastes such as LCD Monitors, unused and non-repairable desktop systems, Air conditioning equipment and UPS equipment are disposed through auctioning / sale periodically adopting due process. The electronic waste is sent to Vasu Industries for the purpose of re-circulation. Instead of buying a new machine buyback option is taken for technology upgradation. The e-waste generated from hardware, that cannot be reused or recycled is being disposed of centrally through government authorized vendors.



Awareness on Solid Waste Management by NSS Co-ordinator Dr.B.Kezia Rani with Faculty & Students



# Green Audit Report

The University is well equipped with latest models of electronic implements, the e-waste generation is very minimal, and hence the anticipated e-waste disposal strategies are underway.

The e-waste generated is disposed by inviting private vendors through quotations



No.ANUR/A.VII/Disposal/2021

Dt.29.01.2021

**PROCEEDINGS OF THE VICE-CHANCELLOR**

Sub: ANUR – Disposal of used answer scripts & scrap items – Award of work –

Approved – Reg.

Ref: 1. Tender Advt No.ANUR/Engg/2020/2 Dt.27.11.2020

2. Bids opened by the committee dated 22.01.2021

3. Note orders of the Vice-Chancellor Dt.28.01.2021

\*\*\*

**ORDER:**

The Vice-Chancellor is pleased to order that the firm M/s Vasu Industries, Kakinada, who stood as Highest-1(H-1) be approved for the work “Disposal of used answer scripts and scrap items” and awarded to the firm for an amount of Rs.1,220/- (Rupees One thousand Two hundred and Twenty only) per 100 kgs of used answer scripts and Rs.16,500/- (Rupees Sixteen thousand and Five hundred only) for Scrap items.

Also ordered to accept and deposit the EMD DD for Rs.50,000/- of M/s Vasu Industries into University account and the EMD DDs of remaining bidders be returned.

(BY ORDER)

  
UNIVERSITY ENGINEER

Copy to  
All Members  
PS to VC  
PA to Registrar  
Finance Officer  
OOF.

  
Registrar  
Adikavi Nannaya University  
RAJAMAHENDRAVARAM-533296,  
E.G.Dt., A.P., India









# Green Audit Report

Plantation activities at the onset of monsoons is practiced adding to the existing Avenue plantations.

Invited Lectures and Special Talks on the occasion of World Environment Day, International Day of Biological Diversity, Earth Day etc, to motivate the young minds towards environment protection, think of reducing pollution.

An Guest Lecture on '**Wild Ornamental Plants**' by Dr. Madusudhana Reddy, Yogi Vemana University ,for M.Sc Botany Students - 22.9.17



Students collecting the Wild Ornamentals in the Campus around the College of Science Building – 22.9.17







# Green Audit Report

Regular study tours for natural vegetation studies viz., Maredumilli, Rampa, Talakona, Ooty, BSI - Coimbatore, National Parks, Biosphere reserves, Reserve forests, taken up to sensitize the students about the treasures of Nature, the impact of human activities on the destruction of Nature







# Green Audit Report

Exposure visits to farm lands to understand Natural farming practices; and the impact of chemicals on the soil, water, air and microbial and faunal diversity.







# Green Audit Report



Conduct of Training programs and workshops on Natural farming practices



# Green Audit Report







# Green Audit Report



## 2.1.6. Institutional Carbon Footprinting

Carbon emissions are a significant cause of climate change. Human activities are responsible for increase in greenhouse gases in the atmosphere. The largest source of greenhouse gas emissions from human activities is from burning fossil fuels for electricity, heat and transportation.

Carbon Footprint (CF), as an indicator of climate performance, helps identify major GHG emission sources & potential areas for improvement. It has been introduced as a tool to guide the relevant emission cuts and verifications that will facilitate the understanding of the risk of global warming at the very first stage.

According to Carbon Trust (2007), "Carbon Footprint is defined as a measurement of the total GHG emissions caused directly and indirectly by an individual, an organization, event or product and is expressed as a carbon dioxide equivalent (CO<sub>2</sub>e)". An organizational carbon footprint measures the GHG emissions from all the activities



# Green Audit Report

across the organization, including energy used in buildings, fugitive emissions and organization's vehicles. Besides quantifying organization's total GHG impact, a Carbon footprint analysis will provide the organization with a comprehensive GHG inventory, allowing it to identify and target reductions from its major emissions sources. Measuring it in this way enables us to address the climate change challenge in a holistic way that does not simply shift the burden from one natural system to another. In fact, the climate problem emerges because the planet does not have enough bio capacity to neutralize all the carbon dioxide from fossil fuel and provide for all other demands.

The GHGs expected to be released in the campus with newly installed infrastructure with good rated electronic goods; very few vehicles, cooking stoves can be negligible and remediated by the green cover in the campus. What little CO<sub>2</sub> is produced will be utilized by the plants for the photosynthesis, in the process releasing large quantities of O<sub>2</sub> and water vapour. This probably is the reason for the temperatures in the campus to be less by 2°C when compared to the city of Rajahmundry.

## **Recommendations**

- With large scale expansion of the University foreseen, a scientific evaluation of the carbon footprint of the campus is suggested.



## Adikavi Nannaya University MSN Campus, Kakinada

### 3. About the campus

The Adikavi Nannaya University MSN Campus, (Erstwhile Andhra University MSN Campus) Kakinada lies on the East coast in the East Godavari District, Andhra Pradesh, India. The campus has been carefully nurtured in academic and service activities since its establishment in November 1977. The Campus is ideally located in between 213 National Highway and Kakinada Port – Samalkot ADB Road in a 50.93 acres site at Thimmapuram village. The Campus is at a distance of nine kilometers from Kakinada Town Railway Station. The environment and facilities at the Campus are very conducive to learning. The administrative control of this campus has been transferred to Adikavi Nannaya University, Rajahmundry vide. G.O. Ms. No. 19 Dated 06.04.2017.



The Andhra University, Visakhapatnam started the Andhra University Post Graduate Courses, in November 1977 at the erstwhile Pithapur Rajah's Government College hostel buildings, Suryaraopet, Kakinada to cater to the educational needs of the people of the Godavari districts. At the beginning the University introduced three courses viz., M.A.,





# Green Audit Report

in English, and M.A., in Politics and Public Administration. Sri. Malladi Satyalinga Naikar Charities donated an extent of Ac 40.38 cents of land to the Centre in Thimmapuram (village), Kakinada Rural Mandal. A Building with 22,053 sft was constructed in the said land in the year 1989. The A.U.P.G. Centre was shifted to its new building in June 1993 with a new caption as Andhra University M.S.Naicker P.G.Center.

The sprawling campus spread over 50.93 acres has play grounds, Indoor stadium, Badminton Academy, Spacious Auditorium, language Lab, Computer Lab and other laboratories, Seminar hall, Net Centre, Central library, Hostels, e-classrooms, Wi-Fi campus and other infrastructural facilities useful for the learners. The institution has a consistent track record of good results along with notable performance in extra-curricular and co-curricular activities like Games and Sports, NSS, Literary and Cultural. Different cells and clubs like – Women Empowerment Cell, Women Entrepreneurship Cell, Career Guidance and Placement Cell, Grievance Redressal Cell. etc., are functioning with the active involvement of the students.

The Campus has also adopted “Green Campus” for environmental conservation and protection.

## **3.1 Action Plan**

The Green Audit Conducted at Adikavi Nannaya University MSN Campus, Kakinada by the Audit team is based on the following aspects.

I. Environmental Audit (Go Green)

II. Water Audit

III. Energy Audit

IV. Waste management Audit

### **3.1.1 Environment**



# Green Audit Report

Maintaining a pleasant and clean environment is the foundation for a healthy atmosphere in the campus and well-being of student and teaching community.

The campus is filled with variety of a number of Plants and tree species (*Mangifera indica* (Mango), *Borassus aethipoum* (African Fan Palm), *Cocos nucifera* (coconut), *Polyalthia longifolia* (Ashoka)) contributing for the green and healthy environment.

Due to the presence of large varieties of plants a number of insects and birds visit the campus every day.

Plantation and cleaning activities are part of the time table under NSS program every week. Around 100 NSS students with staff participate in the Swachatha activities every week.

Green belt zone is established where vegetables are cultivated.

## **Recommendations**

- It is recommended to continue the maintenance of the cleaning and greening in the campus. As suggested earlier plantation of endemic plants and monitoring of the flora and fauna of the campus at regular intervals is recommended.

### **3.1.2 Water**

The main source of water supply for the institute is from the bore wells. The water quantity required per day is around 4000 liters. The Institute has installed the Water tank for about 25000 liters capacity. The drinking water is provided through a 500 liters per day RO water plant and thereafter to the dispensers at various locations for ease of access to the students and staff. The drinking water is periodically tested from the laboratory and ensured its potability for drinking purpose.

## **Recommendations**



# Green Audit Report

- Further to the provisions of water in the institution, methods can be applied to use the rooftop rainwater harvesting water for drinking and sanitary purposes by advanced water treatments.
- Specific efforts for conservation of fresh water through auto water taps based on occupancy sensing mechanism.
- Separate metering also can be installed for garden and domestic water consumption including ETP recycled treated effluent etc.

### 3.1.3 Energy

APPDISCOM is the major source of electricity. 20 KW is the requirement of the institute. In terms of units, institute consumes around on an average 4000 units per month after installation of LED lamps/ bulbs.

LED lamps were installed in 2020 in the streets of the campus and corridors of the building.

#### Recommendations

- Installation of LED lamps and bulbs in the remaining areas is recommended. Periodic energy audits can be planned to have enough data on savings and contribution through use of solar /green energy.
- Occupancy sensors can be planned to avoid manual intervention in shutting off and starting on the lighting systems in various rooms.
- We recommend educating all the students and staff to switch of lights and fans when not in use and save energy stickers to place in all rooms.

### 3.1.4. Waste management Audit

#### 3.1.4.1. Effluent

Sewage is generated through the use of water for sanitary purposes. The sewage generated after the use is connected to the municipal sewer lines through the underground sewer lines.



# Green Audit Report

Waste water is used for irrigating plants in the campus.

Laboratory waste water generated around 200 liters per day is treated/diluted and discharged in Local Municipal sewage channels.

## **Recommendations**

- Based on the consumption of water for each day and the daily water supply quantities domestic sewage can be quantified for further water conservation purpose.
- Specific water audit can be conducted to know the water inflow and out flow along with the losses, leakages, wastages etc. so as to plan action for water conservation.

### **3.1.4.2. Solid waste**

Major sources of solid waste are from the canteen and stationary wastes. Domestic waste from canteen and Hostels are disposed to the municipal dust carriers.

Bulk Stationary waste is segregated into non-recyclable and recyclable. Non-recyclable waste is burned in the campus. Recyclable waste is given for recycle to paper manufacturers on exchange basis as per the volumes generated.

## **Recommendations**

- Quantification of every day canteen waste can be taken up and it can also be displayed in the canteen to educate the consumers / students about the wastages and losses to the environment and human efforts.
- Composting of the solid domestic waste is recommended.

### **3.1.4.3. E-waste**

Since the organization is well established and equipped with the necessary and up-to-date electronic infrastructure, the e-waste generation is very minimal. However, as a



# Green Audit Report

proactive initiative, an authorized vendor is identified for servicing and disposal of e-waste in case it is generated.

Usually the contracts for electronic items are done with the buyback assurance so as to meet the e-waste disposal requirements of the legislation. E-waste after generation is segregated from other sources and kept separately identified for disposal in systematic way through the authorized vendors.

## **Recommendations**

- E-waste listing and quantification in detail can be useful further to reduce the e-waste generation.





## Adikavi Nannaya University, Tadepalligudem Campus

### 4. About the Campus

Adikavi Nannaya University, Tadepalligudem Campus, is the constituent college of Adikavi Nannaya University, located in Tadepalligudem, West Godavari District, in the state of Andhra Pradesh, India. Tadepalligudem, a peaceful trading town, well connected by rail (East Coast Grant Trunk route) and road (National Highway 16). The campus was established as Post Graduate Centre of Andhra University, Visakhapatnam in 2004. The sprawling twenty acre campus is located in an academic neighborhood along with the National Institute of Technology and other reputed private Engineering Colleges. Taken over by Adikavi Nannaya university in 2017, the campus has since then been offering Chemistry, Physics and MBA at the Postgraduate level and four-year Pharmacy course at the Bachelor's level. All the courses have well established labs and a good collection of library books. Students and faculty have access to JSTOR and JGate, e-journal consortiums. The campus is having a ten acre playground with good sports and games facilities. A dedicated modern halls of residence for girls is coming up on the campus. A seventy thousand square feet, modern academic complex is in advanced stage of construction exclusively for the pharmaceutical course.



# Green Audit Report



## COURSES OFFERED:

S No	Courses Offered	Year of Establishment
01	Masters of Business administration	2017
02	M.Sc Organic Chemistry	2018
03	M.Sc Analytical Chemistry	2019
04	M.Sc Physics	2019
05	Bachelor of Pharmacy	2019

**INFRASTRUCTURE AND LAB FACILITIES:** The University has adequate physical infrastructure for post-graduation and under-graduation programme which were having separate buildings to facilitate teaching, research, extracurricular activities, and residential facility for women students and staff.

The Post-graduation programme serves with a built-up area of 26530 sqm., it has 1 lecture theatres, 9 classrooms, 2 tutorial rooms, 1 Digital Class room, many 6 laboratories, a well



# Green Audit Report

maintained and spacious library, a board room, an auditorium with 250 capacity, well maintained computer lab.

The Under-graduation course facilitates students with built-up area of 66000 sqm it has 5 classrooms, 2 tutorial rooms, 1 seminar hall, many 11 laboratories excluding Central Instrumentation room and Machine room, well equipped computer lab a well maintained and spacious library and reading room stocked with the latest reference books and textbooks is available for the pharmacy students and an auditorium with 500 capacities.

## **EXTRACURRICULAR ACTIVITIES:**

The AKNU Campus has been organizing various extracurricular activities for the overall development of students.

The Swatch Bharat Programme was launched by Prime Minister Narendra Modi with an aim to make India Clean. Aim is to provide sanitation facilities to every family including Toilets. Solid, Liquid waste disposable systems, village cleanliness and safe and adequate drinking water supply. It is significant that the prime minister himself is taking very proactive role in making the campaign a success. University campus organizes half session of every week. Entire college participated in this programme of Swatch Bharat.

The College in every academic year beginning conducts a series of awareness programmes on “Anti - Ragging” with the higher officials of police departments and creates the awareness among the students about punishable laws related to the ragging and gives a confidence to junior’s students and the laws associated with Ragging and suggested all students should be with brotherly nature irrespective of senior or junior categories.

World Environment Day was marked by planting the trees in and around our campus by our Hon’ble Vice Chancellor and Former Registrar and Special Officer for making greenery campus all around.



# Green Audit Report

Every year college celebrated Independence Day. Our Principal will host the National Flag. All teaching and Non-Teaching Staff and students are participated.

On April 14th 2021 on the Eve of Ambedkar Jayanthi was conducted by our principal and Course Coordinators of each department of AKNU Campus conducted the programme. All students and Teaching staff have participated.

## **UNITS IN NSS/NCC:**

AKNU Campus Tadepalligudem was not yet initiated with NSS/NCC.

## **DIFFERENT CELLS AND THEIR ACTIVITIES:**

### *Anti-Ragging cell for each department:*

To ensure compliance as per the UGC Regulations on curbing menace of ragging in higher educational institutions, 2009, the Anti-Ragging Committee is nominated and headed by the Head of the institution, of each department and comprises of representatives as prescribed by the UGC Regulations involved in youth activities and representatives from the institute.

The committee will ensure compliance with the provisions of the Anti-ragging regulations; monitor and oversee the performance of the Anti-Ragging Squad in prevention of ragging in the institution.

## **4.1 Action Plan**

The Green Audit Conducted at Adikavi Nannaya University Campus, Tadepalligudem by the Audit team is based on the following aspects.

I. Environmental Audit (Go Green)

II. Water Audit

III. Energy Audit



# Green Audit Report

## IV. Waste management Audit

### 4.1.1 Environment

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 programs organized 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 animal species, 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 of the grazing animals are dependent on trees and shrubs mainly for food and shelter. 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. Our campus is situated 2Km away from traffic area, which is free from the carbon monoxide, nitrous oxide, hydrocarbons emission.

Noise pollution will be in acceptable or permissible level nearly of 50 to 40 dB (Silence zone) Thus, the college has been playing a significant role in maintaining the environment of the entire campus and its surrounding areas.

### Recommendations

- The same maintenance of green cover in and around the campus is to be continued and introduction of new endemic varieties of plants is recommended as to increase more greenery, beauty as well as increases insect and bird visitors to the campus thus improves the biodiversity.





# Green Audit Report

- Placing of indoor plants in the corridors of the building near classrooms, laboratories and offices is recommended as to increase the ambience and greenery.

## 4.1.2 Water Audit

To cater the water requirement for the campus, two bore wells are used for the activities. The total quantity of water required for the campus is assessed for a population of students is assessed as 3000 litres per day.

For hygienic drinking water, our campus hired one RO plant nearby. In order to provide drinking water, the water plant authority will place nearly 20 cans every day in each and every floor.

## Recommendations

- Further to the provisions of water in the institution, methods can be applied to use the rooftop rainwater harvesting water for drinking and sanitary purposes by advanced water treatments.
- Water recharge pits can be constructed to harvest rain water in order to improve the ground water levels.
- Specific efforts for conservation of fresh water through auto water taps based on occupancy sensing mechanism.
- Separate metering also can be installed for garden and domestic water consumption including ETP recycled treated effluent etc.
- Periodical assessment of water quality of both drinking and tap water is recommended.

## 4.1.3 Energy

The energy utilized in the Campus for lighting, and cooling, running of laboratory instruments, water heating, appliances in office, ground water pumping, cooking and transportation provided by the state government authority.



# Green Audit Report

Electricity is saved by use of LED bulbs for illumination in place of normal tube lights. Old electricity supplies like wiring, electric control panel has been updated.

The alternate energy source for the operation of AKNU campus office and computer rooms is by the Inverter with 500 watts.

## **Recommendations**

- Periodic energy audits can be planned to have enough data on savings and contribution through use of solar / green energy.
- Occupancy sensors can be planned to avoid manual intervention in shutting off and starting on the lighting systems in various rooms.
- We recommend educating all the students and staff to switch of lights and fans when not in use and save energy stickers to place in all rooms.

## **4.1.4 Waste**

### **4.1.4.1 Effluent**

At present in different laboratories of all science streams, following categories of chemicals are in use: Oxidizers, Oxidizing acids, Basic flammable liquids, Organic and Inorganic acids or bases, Poisons (Toxic chemicals), Water-Reactive acids and Non-Hazardous or non-regulated chemicals.

AKNU Campus is committed to manage chemical wastes produced in its practical laboratories in a safe and environmentally sound manner that complies with all applicable central and state government regulations.

The handling and storage will be the areas where college will take adequate steps in the campus itself while disposal will be done in cooperation with a local Municipal authority. Sewage water is discharged to public Sewer.

## **Recommendations**



# Green Audit Report

- Specific water audit can be conducted to know the water inflow and out flow along with the losses, leakages, wastages etc. so as to plan action for water conservation.
- Sewage water treatment plants can be installed to treat the effluent water which can be utilized for irrigation of plants in the campus.
- Periodical assessment or measurements of chemicals in effluent water is recommended in order to treat the effluents in an effective manner.

## 4.1.4.2 Solid waste

Domestic Waste is given to Municipal Corporation. Two types of Waste bins are provided at campus for biodegradable and non-biodegradable waste. Incinerator is used for managing sanitary waste.

Reuse of one side printed Paper for internal communication. Five composting pits are there in campus.

### Recommendations

- Quantification of every day canteen waste can be taken up and it can also be displayed in the canteen to educate the consumers / students about the wastages and losses to the environment and human efforts.

## 4.1.4.3 E-waste

E-waste generation is very minimal.

### Recommendations

- E-waste after generation is recommended to segregate from other sources and kept separately identified for disposal in systematic way through the authorized vendors.
- E-waste listing and quantification in detail can be useful further to reduce the e-waste generation.

## 4.1.5 Carbon neutrality



# Green Audit Report

AKNU campus Tadepalligudem achieved carbon neutrality by reducing greenhouse gases with the following methods: Reduce electricity consumption, reduce transportation emissions, eliminate emissions from paper, eliminate emissions from waste, Produce Renewable Energy, and produce maximum viable energy from waste, reducing energy use through building level energy efficiency projects and energy saving actions by facility occupants.

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