

GREEN AUDIT REPORT | 2022

GREEN AUDIT REPORT - 2022

is presented to

**ADICHUNCHANAGIRI
UNIVERSITY**

Nagamangala Taluk, BG Nagara – 571 448

has successfully demonstrated knowledge on Energy conservation,
Water conservation, Bio diversity, Waste management, Indoor
Environmental quality, Carbon footprint.

07.02.2023

DATE



NISCHAY N
GREEN BUILDING CONSULTANT

Acknowledgement

Green Audit Assessment team thanks the management of Adichunchanagiri University, for assigning this important work of Green Audit. We appreciate the cooperation to us for completion of study.

Firstly, we would like to pay our obeisance to the almighty and would like to start this audit with blessings of His Holiness **The Hon'ble Chancellor, Param Poojya Jagadguru Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji** an ardent disciple of His Holiness **Bhairavaikya Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji**.

Our special thanks are due to:

Dr M A Shekar Hon'ble Vice Chancellor, Dr. B K Narendra Dean of Engineering & Management Adichunchanagiri University, Dr. T Mahadevaiah Vice- Principal & Head, Dept. of Civil Engg BGSIT.

We are also thankful to other staff members who were actively involved in giving us necessary inputs to carry out this very vital exercise for Green Audit.



Submitted to:

The Registrar,
Adichunchanagiri University,
Bengaluru – Hassan National Highway (NH-75),
Nagamangala Taluk, BG Nagara – 571 448,
Mandya District, Karnataka State, India.

Audited by:

Green Aura,
692F, 12th A cross Bel layout,
Bengaluru- 560091.

Disclaimer

Green Audit team has prepared this report for Adichunchanagiri University based on input data submitted by the representatives of the University and is complemented with the best judgment capacity of the expert team. While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered. It is further informed that the calculations are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

The detailed Information and analysis presented in this report are valid as on the date of visit and period of study at the site. The work presented represents our best efforts and judgments based on the information available at the time this report was prepared. Green Aura makes no assurances as to the accuracy of any such information or any conclusions based thereon. The observations made in this report are only an indication of the performance of the facility based on our assessment and should not be considered as the comment on the functioning of the facility. The observation is purely based on the data recorded at that point of time.

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Executive Summary

Universities and Institutions have broad impacts on the world around them, both negative and positive. A nation's growth starts from its educational institutions, where the ecology is thought as a prime factor of development associated with the environment. The activities pursued by University can create a variety of environmental impacts. A clean and healthy environment aids effective learning and provides a conducive learning environment. Adichunchanagiri University is very sensitive to environmental factors as more concepts are being introduced to make them eco-friendly.

Adichunchanagiri University expresses its commitment to sustainability in many ways. It has taken a number of positive steps to reduce its environmental impact. But many areas remain in which substantial improvements can be made. This report serves to highlight Adichunchanagiri University's many accomplishments, and to make recommendations for improving the University's environmental sustainability. The University has conducted the Green Audit for the year **2022** and strives to maintain eco-friendly atmosphere on the campus.

The aim of the report is to identify scope for improvement and recommend implementable and economically viable solutions in achieving the most optimized utilization of energy and water in the campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Therefore, it is imperative that the University evaluate its own contributions toward a sustainable future.

The initiatives taken by the University to make the campus Ecofriendly:

1. Energy conservation
2. Water conservation
3. Efforts for carbon neutrality
4. Hazardous and E-waste waste management
5. Health and Well- Being
6. Plantation

University and its constituent college have undertaken various activities through N.S.S. and other activity to create eco-friendly awareness among the students, University and its constituent arranges special programs by inviting the eminent personalities, who in turn train and educate public. Students are encouraged to participate in eco-friendly activities.

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Green Auditing

The term “Green” means eco-friendly or not damaging the environment. This can acronymic ally is called as '**Global Readiness in Ensuring Ecological Neutrality**' (GREEN). 'Green Audit' can be defined as 'systematic identification, quantification, recording, reporting and analyzing of components of ecological diversity and expressing the same in financial or social terms'. 'Green Auditing', an umbrella term, is known by another name 'Environmental Auditing'. To implement the green audit other important aspects such as objective of green audit, Drivers of green audit, future scope, benefits, and advantages are necessary to understand. The green audit practically involves energy conservation, use of renewable sources, rain water harvesting, and efforts of carbon neutrality, plantation. The concept of Green Audit, institutions are using it as a management tool to evaluate the environmental standards; Institution can perform better and better for the sustainable development of the organization. The experiments on the nature by avoiding natural rules, this can be a one major reason behind that is Green Audit.



Adichunchanagiri University - Campus.

Accelerating Education for the SDGs through Green Audit

University has a critical role to play in the achievement of the SDGs. Education, research, innovation and leadership will be essential in helping society to transform into pathways of sustainable development. This is why we encourage universities and knowledge institutions to implement sustainability in their core operations.

Universities have a unique and critical role in helping the world achieve the Sustainable Development Goals (SDGs) through their research, teaching, operations and community leadership. Green Audit is a Adichunchanagiri University strategic initiative to engage in particular towards the Sustainable Development Goals (SDGs).

Students and Staff members are made totally aware of pollution that are caused by use of vehicles. The carbon consumption awareness program improves to help in carbon emission at individual as well as social level and avoids Air and Noise pollution in the campus due to vehicles or any activity in it. Green Audit is the most efficient & ecological way to solve such an environmental problem. The experiments on the nature by avoiding natural rules, this can be a one major reason behind Green audit process. Green Audit is one kind of professional care which is the responsibility of each individual who are the part of economic, financial, social, environmental factor. It is necessary to conduct a green audit in University campus such that student will be aware of the green audit, its advantages to save the planet & they become good citizen of our country. Thus Green Audit Become necessary at the University level.



17 Sustainable Development Goals displayed

Approach & Methodology

During the study, the entire university and its constituent University was visited and studied in detail. The audit involved carrying out various measurements and analysis covering all major energy, water and resource consuming sections, to realistically assess losses and potential for savings. The study focused on improving energy, water resource, waste management and other green initiatives and identifying other saving opportunities. A very simple indigenized system has been devised to monitor the environmental performance of Adichunchanagiri University. It comes with a series of questions to be answered on a regular basis. This innovative scheme is user friendly and completely voluntary. The aim of this auditing report is to help the university set environmental examples for the community and to educate the young learners.

The major areas of study are broadly categorized into:

1. Site Selection
2. Built Environment
3. Water Audit
4. Energy Audit
5. Good Health and Well-Being
6. Waste Management
7. Green Education
8. Transportation

During the audit, there was continuous interaction among the University officials, faculties and students to ensure that the suggestions made are realistic, practical and implementable to allow for possible concurrent implementation.

I. About Adichunchanagiri University

The University is situated in a Lush Green Unitary Campus of 67 acres at B.G. Nagara, Nagamangala Tq., Mandya District, Karnataka on the Bangalore – Mangalore National Highway No. 75, 105 Kms from Bangalore, the Capital City of Karnataka.

The University consists of six Constituent colleges in the disciplines of Medicine, Pharmacy, Nursing, Engineering, Management, Commerce and Education. The environment friendly campus has adequate infrastructure and physical facilities for Academics and Research. The campus possesses around 5000 students, 400 teachers and 1800 support staff.

The University employs a broad range of strategies to achieve its Vision, Mission and Objectives to expand the horizon of World Knowledge, provide instruction, Teaching-Learning, Training, Research and Development at the level of Higher Education in the faculties of Health Sciences, Engineering and Technology, Management and Technology, Humanities & Social Sciences and other Emerging and Thrust areas.



ADICHUNCHANAGIRI
UNIVERSITY

Logo of Adichunchanagiri University

Logo of Adichunchanagiri University symbolizes its vision “Education for all with Value Systems of Empathy, Enrichment, Equity, Excellence, Empowerment, Entrepreneurship & Enlightenment to Serve the Society”.

i. Campus Details

The University consists of six Constituent colleges in the disciplines of Medicine, Pharmacy, Nursing, Engineering, Management, Commerce and Education. The environment-friendly campus has adequate infrastructure and physical facilities for Academics and Research. The campus possesses around 5000 students, 400 teachers and 1800 support staff.

Adichunchanagiri Institute of Medical Sciences (AIMS) was established in the year 1986 at BG Nagar, near Sri Adichunchanagiri Kshetra with a vision of providing medical education to aspiring students from rural areas. AIMS was inaugurated by the then Honorable Chief Minister of Karnataka, Sri Ramakrishna Hegde on 17th Jan 1986 in the holy presence of Padmabhushana Dr. Sri Sri Sri Balagangadharanatha Maha Swamiji. AIMS has evolved into a prestigious institution in the region since its inception



“Adichunchanagiri Institute of Medical Sciences”

BGS Institute of Technology (BGSIT) is a community that is dedicated for creating tomorrow’s engineers and supporting today’s pioneers. BGSIT is situated in a lush green and pollution-free environment, which is very much favorable and motivates the students to earnestly pursue their studies. The campus is 90 kilometers away from Bengaluru City known as Silicon Valley of India on the Bengaluru – Hassan – Mangalore National Highway (NH-75). BGS Institute of Technology (BGSIT), BG Nagar was established in 2005, The campus with 21 acres of land is unique in nature and located within a lush green environment. It is situated on Bengaluru-Hassan-Mangaluru National Highway (NH-75) (Alight: Bellur Cross, BG Nagar) and equidistant of 80 kilometers from Bengaluru, Mysuru, Mandya, Hassan and Tumkur.

Fresh oxygen rich air point of great attraction. BGSIT is approved by all Council for Technical Education, New Delhi; affiliated by Visveswaraya Technological University, Belagavi, and recognized by Government of Karnataka. It has the unique distinction of having learned faculty for teaching in respective disciplines. The dynamic and committed faculty and staff ensure high standards of learning and embedding social and ethical values.



“BGS Institute of Technology (BGSIT)”

Adichunchanagiri College of Nursing, The College of Nursing is a Part of Adichunchanagiri University. Adichunchanagiri College of Nursing(ACN) is one of the leading institutions in the country, offering Nursing education at the undergraduate, postgraduate and doctoral level.

Adichunchanagiri College of Nursing was started in the year 1995, Five years after the commencement of Diploma in Nursing Course (1991), Basic B.Sc.(Nursing)course was started in 1995, P.B.B.Sc. Nursing) started in the year 2008 and M.Sc.(Nursing) in Community Health Nursing started in the year 2011 and other M.Sc. Nursing Specialties started in the year 2015. PhD was started in the year 2019-2020 to meet the increasing demands for nursing Graduates in Hospitals, Nursing educational Institutions, Clinics, Industrial Nursing etc.

The success of ACN as an acknowledged institution for quality learning is an outcome of the various facets that give ACN its characteristic value – the faculty, enterprising students, infrastructure facilities and industry partnerships. The Institute is reputed for the outstanding students graduating from its undergraduate and postgraduate programmes. The alumni have distinguished themselves through their achievements and contributions to the industry, academics, research, business, government, and social domains.



Adichunchanagiri College of Nursing



“Adichunchanagiri College of Nursing”

Adichunchanagiri College of Pharmacy is a Part of Adichunchanagiri University for providing an outstanding professional educational programme in pharmacy. Ten years after the commencement of Diploma course, B. Pharma degree course was started in 1992 to meet the increasing demand for Pharmacy graduates in Pharmaceutical Industries, Hospital Pharmacy, Drug Control Department and R & D department etc. SACCPC has a distinctive atmosphere where the emphasis is on teamwork, cooperation, and friendly competition. Smaller student groups in classes lead to students developing closer supportive relationships with each other and faculty members. SACCPC provides exceptional campus facilities to serve the needs of the student community.



Sri Adichunchanagiri College of Pharmacy



“Adichunchanagiri College of Pharmacy”

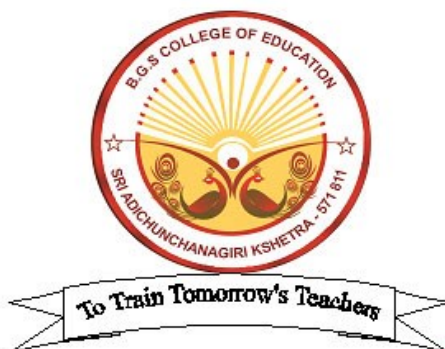
BGS First Grade College, the primary objective of education is to create dynamic leaders in the corporate sector, entrepreneurs, and professionals who contribute to the development of society and nation at large. We are committed to maintaining high academic standards and preparing our students to secure rewarding employment on graduation. At the same time, we believe that S.F.G.C students should develop as individuals, gaining in self-confidence and developing a sense of enterprise.



“BGS First Grade College”

BGS College of Education (BGSCE), We at College of Education produce & develop value-added human resources. BGS College of Education ensures quality teacher education programme with ardent effort supported by high-level facilities of laboratories, library, classrooms, Auditorium, Seminar hall, Sports equipment, spacious playground & free hostel facilities for both male and female etc.

BGS College of Education is equipped with all necessary amenities for Teachers' Education Programme. There are Classrooms, Lecture Hall, Activity Room, Library with adequate number of books for use of the teachers and the students, Learning Resource Centre and rooms for Principal, Faculty, Office and Store. Equipment's for the Geography, Psychology and Work Education laboratories are in place. A full-fledged computer laboratory with all other accessories has also been setup.



“BGS College of Education”

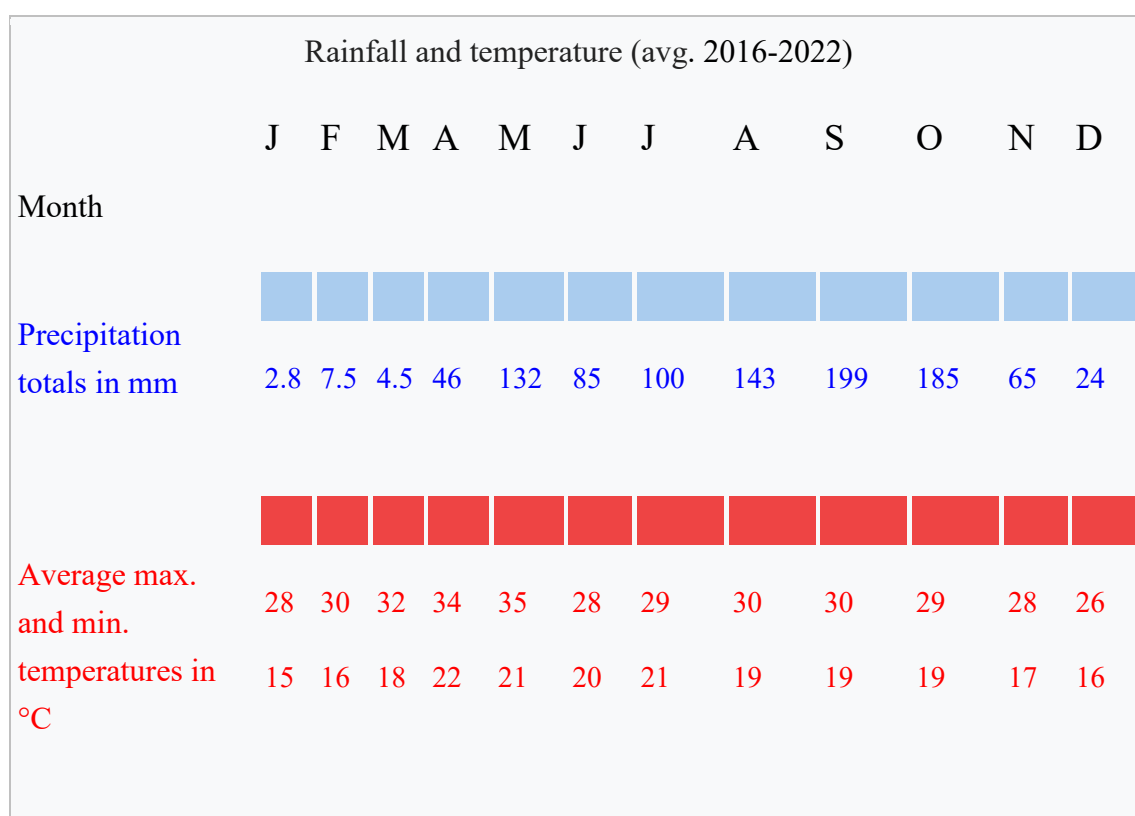
ii. Site details

a. Location

Bengaluru – Hassan National Highway (NH-75), Nagamangala Taluk, Mandya District, B G Nagar, Karnataka 571448.,

It is positioned at 12°57'53.60"N 76°43'40.90"E and covers an area of 112158.249 square meters, it has an average elevation of 796 meters. Seismicity, it lies in the seismically stable region, Zone III.

b. Climate Chart



c. Master Plan



Adichunchanagiri University Campus map

d. Total built-up area of the university

AIMS College Block				
Sr. No	Building Name	Old Exiting Building Up Area (sqm)	New building Build up Area (sqm)	Total Building Build Up Area in (sqm)
1	AIMS College	12,505.20	11801	24,306.20
2	AIMS Library block	2750	4799	7,549
3	Auditorium Block	2882.62	0	2,882.62
4	AIIMS Forensic block	1103	2151	3,254
5	Animal house	372.67	0	372.67
6	AIMS Teaching block	6569.66	0	6,569.66
Total AIMS college Buildup area				44,934.15

Hospital block				
Sl. No	Building Name	Old Exiting Building Up Area (sqm)	New building Build up Area (sqm)	Total Building Build Up Area in (sqm)
1	Hospital Block	3436.77	20343	57,779.77
2	Ward Block	0	16820	16,820
3	Casualty block	0	5792	5,792
4	OBG Block	0	1400	1,400
5	OT Block	0	3542	3,542
6	ICU Block	0	1987	1,987
7	OPD 2nd Floor	0	3018	3,018
8	OPD 2nd Floor	0	1138	1,138
9	Medical gas generator	0	374	380
10	OT block to ward block	0	604	604
11	ICU block to ward block	0	806	307
Total Build up Area				92,767.77

Residential Block				
Sl. No	Building Name	Old Existing Building Up Area (sqm)	New building Build up Area (sqm)	Total Building Build Up Area in (sqm)
1	AIMS Boys hostel	5480.92	10981	16,461.92
2	AIMS Girls hostel	12246.47	0	12,246.47
3	K B Boys PG Hostel	4361.05	0	4,361.05
4	K B Girls PG Hostel	3647.58	0	3,647.58
5	AIMS Staff quarter	12601.76	0	12,601.76
6	Nursing staff quarter	0	6977	6,977
7	Principal quarter	1253.53	0	1,253.53
8	Vijnatha bhawan	1894.28	0	1,894.28
9	Manasa complex	2328.62	0	2,328.62
10	Bank building	507.99	0	507.99
11	Working women HO	3801.11	0	3,801.11
12	Hospital canteen	351.3	0	351.3
	Total hospital buildup area			66,432.61
	Total area in sq. mtr			2,04,134.53

BGSIT Building Details		
Sl.No.	Building Name	Roof Top Area (m ²)
1	CIVIL ENGG BLOCK 1	261.09
2	CIVIL ENGG BLOCK 2	261.09
3	CIVIL ENGG BLOCK 3	261.09
4	GUEST HOUSE BLOCK	266.79
5	STAFF BLOCK	266.79
6	BOYS HOSTEL 1 BLOCK	679
7	BOYS HOSTEL 2 BLOCK	887.58
8	LIBRARY AND ME BLOCK	801
9	WORKSHOP BLOCK	1542.5
10	TEACHING BLOCK	1420
11	CS EC BLOCK	1625
12	ADMIN BLOCK	1826.7
13	Mechanical BLOCK	763
	TOTAL roof top area (m²)	10861.76

II. Built Environment

i. Development Footprint and Green Cover

Adichunchanagiri University has retained some site features to minimize site damage and associated negative environmental impacts such as, greenery within the campus, thereby providing habitat and promoting biodiversity. Top Soil Preservation is done to protect the top soil and control soil erosion, thereby reducing negative impacts to the site and surroundings, Adichunchanagiri University is having a vegetated area of 31.5acre i.e. nearly 50% area in the university and is equally balanced with the building footprint.



Adichunchanagiri University campus development footprint and green cover





University has encouraged to retain the site features of the campus to minimize site damage and associated negative environmental impacts by retaining the existing trees, topography, landscape natural rock, water bodies and channels without any disturbance whatsoever.

ii. Day lighting

University has maintained that all regularly occupied spaces are daylit, thereby improving health and well-being of students & teachers.



Classroom view

The institution is having more opportunity to save energy in buildings by maximizing the use of daylight there is no need for artificial lighting during daylight hours without causing variation in thermal comfort due to climate and building's design.



Classroom view



Feeling of space and light in all the labs



A passive architectural design with clerestory window for classrooms

It is maintained that all regularly occupied spaces are daylit, thereby improving health and well-being of students & teachers.

Sr.no.	Space	Prescribed Illumination Level (Lux)	Avg.Readings
1	Classroom	150-300	305
2	Lab/workshop	150-300	272
3	Library	200-300	289
4	Lobby	300	358

Please note that the illumination level is monitored only for daylight. Before starting the monitoring process, the artificial lighting fixtures were switched off. Measured with Digital Lux Meter.



Use of Natural light for library

iii. Outdoor Light Pollution Reduction

To Reduce light pollution to increase night sky access and enhance the nocturnal environment. The institute has designed exterior lighting such that no external light fixture emits more than 5% of the total initial designed fixture Lumens, at an angle of 90 degrees or higher from nadir i.e. straight down.



iv. Heat Island Reduction, Non-roof and roof

Urban heat islands" occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality.



University has implemented measures by planting native, drought-tolerant shade trees and smaller plants such as shrubs, grasses, and groundcover wherever possible to reduce the heat islands to minimize impacts on microclimates and human and wildlife habitats. Majority of exposed non-roof impervious areas are under tree cover with turf and open grass pavers and more than 95% of the parking spaces are under cover.





Majority of exposed non-roof impervious areas are under tree cover with open grass pavers and more than 95% of the parking spaces are under cover.



Vertical greenery systems, used as a strategy for urban heat island mitigation.

Solar panels reduced the amount of heat reaching the roof by an incredible more than 35%, keeping a building's roof 5 degrees cooler than portions of a roof exposed to sunlight directly



Solar panels on roof top



Tree cover to reduce heat island effect













Native grass for lawn at University to reduce heat island effect

v. Air quality

Air pollution has long term and short term impact on the biotic and abiotic component of the environment. The ambient air quality at the core zone of university was monitored. The study area represents it is very calm environment with very less pollutants which was recorded in portable air quality monitor pollution meter with PM 2.5 detector, the preliminary test PM2.5 range was around 5 and it's within the required range of 12.0 so based on the reading Air quality testing was not suggested to the university as the vegetated area is more than the building footprint.

Based on the interaction with building occupants i.e. students and staff members there is no symptoms are often linked to poor indoor air quality such as Dryness and irritation of the eyes, nose, throat, and skin, headache, fatigue, dizziness.

NO_2  Excellent	Breathing in high levels of Nitrogen Dioxide  increases the risk of respiratory problems. Coughing and difficulty breathing are common and more serious health issues such as respiratory... more	12 6 $\mu\text{g}/\text{m}^3$
$\text{PM}_{2.5}$  Excellent	Fine Particulate Matter  are inhalable pollutant particles with a diameter less than 2.5 micrometers that can enter the lungs and bloodstream, resulting in serious health issues. The most severe... more	11 3 $\mu\text{g}/\text{m}^3$
O_3  Excellent	Ground-level Ozone  can aggravate existing respiratory diseases and also lead to throat irritation, headaches, and chest pain.	9 26 $\mu\text{g}/\text{m}^3$
PM_{10}  Excellent	Particulate Matter  are inhalable pollutant particles with a diameter less than 10 micrometers. Particles that are larger than 2.5 micrometers can be deposited in airways, resulting in health... more	8 6 $\mu\text{g}/\text{m}^3$
CO  Excellent	Carbon Monoxide is a colorless and odorless gas and when inhaled at high levels can cause headache, nausea, dizziness, and vomiting. Repeated long-term exposure can lead to heart disease	1 113 $\mu\text{g}/\text{m}^3$
SO_2  Excellent	Exposure to Sulfur Dioxide can lead to throat and eye irritation and aggravate asthma as well as chronic bronchitis.	1 1 $\mu\text{g}/\text{m}^3$

Air quality index and pollutants details

The values of air quality data are within permissible limits. Regular check on these parameters should be kept.

Teachers can be powerful advocates for creating healthy indoor environments, including improving University indoor air quality. As they are on the front lines, teachers can perceive when IAQ changes affect students and themselves. By being involved in creating a clean and healthy learning environment, teachers can promote health, wellness and academic productivity.

Top Actions Teachers Staff and Health Professionals Can Take to Address to improve Indoor Air Quality is by,

1. Keep ventilation units in classrooms free of clutter
2. Report any IAQ issues and maintenance problems occurring in classrooms and hallways immediately
3. Reduce the number of items made of cloth in your classroom, including furniture, draperies. These materials attract dust mites, which can negatively impact sensitive students
4. Practice chemical management in your classrooms, if appropriate
5. Keep Indoor plants which purifies Indoor air quality



Vegetation inside and outside the building to purify air

III. Water Audit

Water audit is an effective management tool for minimizing losses, optimizing various uses and thus enabling considerable conservation of water, the efforts of the institution in water usage and management is seen through following activities it is satisfactory and no unnecessary water wastage is noticed in the campus.

During the survey, no wastages were observed. The open grounds provide means for water percolation as they are not barren due to ample greenery on campus. The campus has a functional rain water harvesting unit and the water collected is used for campus needs. All the waste water from the campus is treated by a fully functional Sewage Treatment Plant and is reused for gardening purposes in the university.

i. Water Supply and Usage

Water source is bore water college has 5 bore well which satisfies the water demand. Currently water for the institution is sourced from nearby javaranahalli bore well.

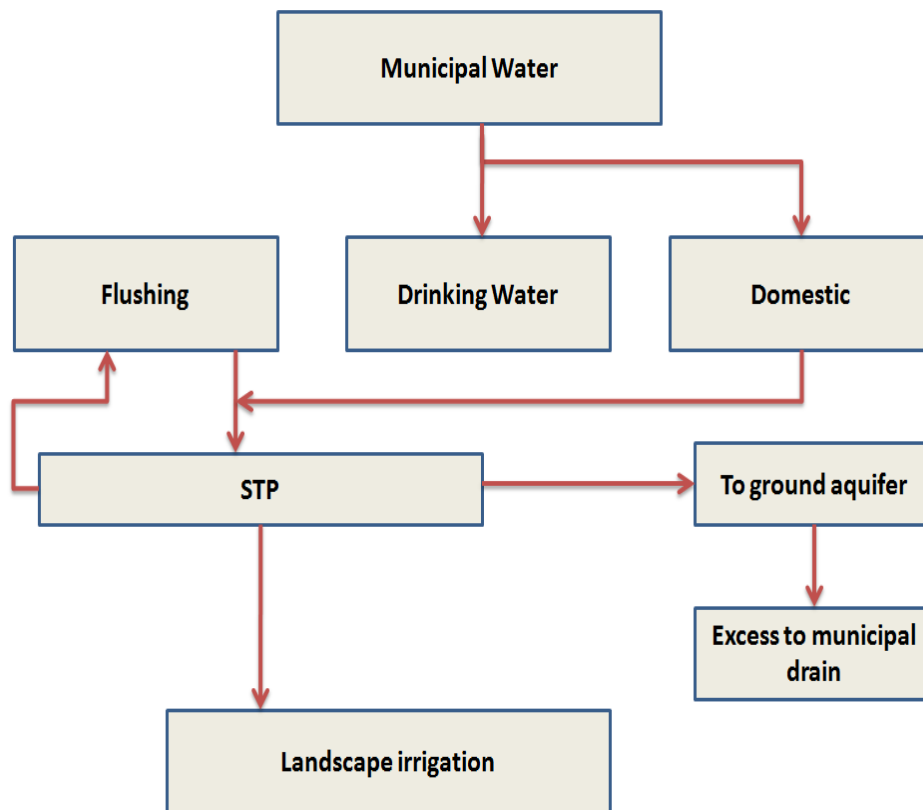
ii. Water quality

The quality of Bore well water meets the potable water standards. Institution has adopted UV and RO water filtration system in each floor in each block to provide drinking water to the staffs and students



RO water filtration system

iii. Water Balance Chart



iv. Rain water harvesting

The institution has planned for rain water harvesting roof method to enhance ground water table and non-roof method is planned by channelizing the rain water to recharge pits.

The Average normal rainfall/ day is calculated: 0.014

Total roof run-off volume calculation:

Sr.no	Surface type	Runoff coefficient (c)	Area (m ²) (a)	Impervious area (m ²) $I = (c \times a)$
1	Cemented roof	.95	10,861.76	10,317.95
Total impervious area in sq. m (ΣI)				10,317.95
Average normal rainfall in m (R)				0.014
Total roof run-off volume in cu.m ($\Sigma I \times R$)				144.45

The institution has total roof run-off volume of 144.45 cu.m. Institution is having a rain water harvesting tank of capacity 1,50,000.



Rain water harvesting tank

v. Rain water recharge pit

The institution is having rain water recharge pits to enhance ground water table and also by providing more vegetated area.

6 numbers of recharge pits 15 feet deep Recharge Pit are located in the institution the rain water recharge pit allows the rain water to restore ground water. Considering the catchment area, rate of percolation of the soil and depth of ground water level the recharge pit is made near to the bore well in order to recharge the underground aquifers and help water infiltration in one area. The recharge pit is filled with stones of different sizes at the bottom, from large gaps for the water to pass through a mesh between sand and stones and prevents the sand from escaping. A layer of soil and leaves of plant acts as a filter for pure water which percolates through soil layer and then into bedrock. Thus rain water used for recharging the ground water level



Rain water Recharge Pit



Rain water collection tank.



Rain water collection tank

vi. Waste Water Treatment and Reuse

To reduce the dependence on potable water, Institute is having an on-site treatment system to handle 100% of waste water generated in the campus, to the quality standards suitable for reuse, as prescribed by Central (or) State Pollution Control Board, as applicable and Using treated waste water for at least 25% of the total water required for landscaping and flushing purpose. Institution is using 100% for landscaping.



Treated waste water used for flushing.



Treated waste water used for landscaping.

vii. Operation and maintenance:

Proper operation & maintenance of rainwater drain facility has been implemented for their effective use. The following measures will be followed:

- a. Inspection of Recharge Pit after every major storm for the first few months after construction. Annual inspection of filter and recharge pits will be conducted.
- b. Quarterly cleanouts and removal of debris from all drainage inlets and outlets
- c. Periodic removal and disposal of accumulated sediments from rainwater drains running all around the site.



480LPM capacity filter

viii. Quality Control

Measure considered for removal of total suspended solids from Storm water by Periodical cleaning process will be carried out to improve the TSS removal efficiency for both the rain water storage and Recharge Pit.

ix. Water efficient plumbing fixtures

University has implemented water efficient plumbing fixtures like sensor based urinals and taps with aerators.



Sensor based urinals



Urinals with auto release flush valve

x. Water audit findings and observations

Based on a walk-through audit of the entire facility was audited through United States Environmental Protection Agency Water sense tool.

General Facility Water Management—Monitoring and Education

Water-efficient Project or Practice	Section of WaterSense at Work ¹	Evaluate ✓	Implement ✓	Done ✓	Notes
1. Read water meters and record monthly water use; verify that all meters and submeters are installed properly.	2.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Water meter readings available
2. Track water and cost savings over time in ENERGY STAR®'s Portfolio Manager® or another utility management system.	1.2, 2.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not applicable
3. Install submeters on all major water-using equipment, systems, or processes (e.g., cooling towers, tenant spaces, irrigation systems, single-pass cooling, and HVAC systems).	2.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sub meters to be used for irrigation system, rest are not applicable
4. Include leak detection and repair in all operation and maintenance (O&M) programs.	2.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Green team is conducting same.
5. Instruct staff and visitors with clear signage on how and where to report leaks at all points of water use.	2.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Awareness on water leakage and sign to be placed
6. Educate facility staff, building occupants, employees, and visitors on water management program goals and initiatives.	2.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Training programs are conducted
7. Incorporate water-efficient best management practices (BMPs) into all Standard Operating Procedures (SOPs) for O&M throughout the facility (including those for both maintenance and cleaning staff).	2.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Green team is conducting same.
8. Form a green team to engage employees in saving water throughout the building.	2.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Greenteam is existing and conducting events on same
9. Incorporate water efficiency criteria into procurement policies along with energy efficiency (e.g., ENERGY STAR certified and WaterSense labeled products).	2.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Colleges are using BEE star rated
10. Educate employees to turn off equipment including all continuous flow equipment, between uses; use automatic shut-off valves where applicable.	—	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Green team is conducting same.
11. Educate employees to use "dry" cleaning methods to avoid washing down equipment or areas with a water hose or mop; sweep or mop instead of spray washing with water.	—	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Green team is conducting same.
12. Test water pressure regularly on each floor of the facility to ensure it is within optimal range for fixture and equipment performance; use pressure regulating valves to correct any issues (i.e., optimal pressure is between 20 and 80 psi for most fixtures).	—	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No high rise buildings, pressure remains normal as per fixture requirement

Sanitary Fixtures and Equipment

13. Regularly check all fixtures and valves for scaling and clean as needed.	3.2 - 3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance is done in regular interval.
14. Test and calibrate all automatic- and sensor-flushing devices regularly to prevent double/phantom flushes.	3.2 - 3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance is done in regular interval.
15. Check tank-type toilets for leaks, broken flappers, and other parts failures regularly.	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance is done in regular interval.
16. Display instructional signage with all dual-flush devices to ensure proper use.	3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Not all flush fixtures are dual-flush. Suggested to go for Dual-flush
17. Replace old tank-type and flushometer-valve toilets with WaterSense labeled models, which flush at 1.28 gpf or less.	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
18. Replace old flushing urinals with WaterSense labeled models flushing at 0.5 gpf or less.	3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to use low flow fixture during replacement
19. Check and adjust automatic sensor and metering faucets regularly to ensure accurate timing and delivery of water per cycle.	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No sensor based fixtures in campus

20. Replace all lavatory faucets or faucet aerators in private-use restrooms (e.g., hotel guest rooms, dorms, and hospital patient rooms) with WaterSense labeled models, which flow at 1.5 gallons per minute (gpm) or less.	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Partially done, suggested management to change completely for high performance aerators as required
21. Replace old lavatory faucets or faucet aerators in public-use restrooms with 0.5 gpm models or metered faucets that deliver no more than 0.25 gallons per cycle.	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Partially done, suggested management to change completely for high performance aerators as required
22. Replace old showerheads with WaterSense labeled models, which flow at 2.0 gpm or less.	3.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Partially done, suggested management to change completely for high performance aerators as required
23. Only wash full loads of laundry.	3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
24. Program clothes washers to use the lowest amount of water, detergent, and chemicals necessary.	3.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
25. Evaluate wash cycles and detergent/chemical formulation for maximum efficiency (least number of wash and rinse cycles).	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
26. Retrofit clothes washers with water reuse or recycling systems.	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
27. Retrofit clothes washers with ozone injection systems.	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
28. Replace old single-load clothes washers with ENERGY STAR certified models or consider a lower water factor when purchasing larger commercial or industrial-sized laundry machines.	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable

Commercial Kitchen Equipment

29. Place signage at all major points of water use to remind employees to turn off the tap and report leaks.	4.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to place signage
30. Shut down or use standby mode for all continuous flow equipment between uses.	4.2 - 4.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to place signage
31. Install automatic shutoffs so water doesn't run when garbage disposal or faucets are not in use.	3.4, 4.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	In few places Auto-release fixtures are used, suggested university to implement for all space if required
32. Do not use running water to melt unwanted ice or thaw frozen food; instead thaw frozen food in a refrigerator, microwave or water bath.	4.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
33. Install aerators on all kitchen handwashing sinks.	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	In few places fixtures with aerators are used, suggested university to implement for all space if required
34. Regularly check faucets, dishwashers, steam equipment, and other kitchen equipment for leaks.	4.2 - 4.11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Green team is conducting same.
35. Eliminate or replace ice machines that are cooled with single-pass cooling water; retrofit to distribute chilled water or use an air-cooled model instead.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
36. Regularly clean coils on the heat exchange unit of an ice machine to maintain efficiency.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
37. Match ice shape and quality to desired uses; use equipment that makes flakes instead of cubes whenever possible.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
38. Clean ice machines periodically to remove lime and scale build up and sanitize them to kill bacteria and fungi.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
39. Install a timer to shift ice production to nighttime or off-peak hours to reduce peak energy demand.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
40. Set ice machine rinse cycles to the lowest possible frequency to provide sufficient ice quality; if available, use a sensor to initiate rinse cycle based on mineral content.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
41. Keep lids closed to keep cool air inside ice machines and maintain appropriate temperature.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
42. Replace old ice machines with ENERGY STAR certified models.	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
43. Load steam cookers, steam kettles, and combination ovens to capacity; only use as many compartments as needed.	4.3, 4.4, 4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
44. Keep doors closed and lids secured on all steam equipment while in operation.	4.3 - 4.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
45. Replace gaskets and tighten hinges on steam equipment doors to provide a good seal to retain heat or steam.	4.3 - 4.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
46. Use steam and combi-mode sparingly; maximize the use of hot air or convection mode.	4.3 - 4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
47. Turn ovens, cookers, and kettles off or down at slow times or when not in use; use a timer to return to standby mode after use; use standby mode only when necessary.	4.3 - 4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
48. Consider using a condensate return system to reduce potable water needed for make-up water in boiler-based equipment.	4.3 - 4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
49. Switch to connectionless combination ovens, steam cookers, and steam kettles whenever possible.	4.3 - 4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable

49. Switch to connectionless combination ovens, steam cookers, and steam kettles whenever possible.	4.3 – 4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
50. Routinely check equipment cooling water lines for leaks and corrosion; inspect shutoff valves to ensure they are properly functioning.	4.3 - 4.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
51. Replace old steam cookers and combination ovens with ENERGY STAR certified models.	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
52. Replace old water-cooled wok stoves with waterless models.	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
53. Install in-line flow restrictors to reduce dipper wells' flow rate to 0.3 gpm or less.	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
54. Install a push-button, metering faucet or undercounter dishwasher to clean utensils instead of using dipper wells.	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
55. Train employees to use always-on clamps on pre-rinse spray valves only when necessary; encourage employees to report leaks and broken/loose parts.	4.8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
56. Replace old, inefficient pre-rinse spray valves with WaterSense labeled models, which flow at 1.28 gpm or less.	4.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
57. Hand scrape food from dishes or install food strainers, and use the scraps to compost food waste.	4.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
58. Turn off water to food disposal systems during idle periods and when the kitchen is closed; consider installing a timer to stop the flow after 15 minutes, so users must reactivate it periodically.	4.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
59. Operate disposal systems to only run cold water to minimize hot water and energy use.	4.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
60. Retrofit disposal systems with load sensors that regulates water use based on the disposal motor's load. This can reduce idle flow rate.	4.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
61. Replace food disposals with food pulpers or strainers to minimize water use.	4.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
62. Extract and recirculate water within the food disposal system to use for pre-rinsing dishes, or use in a sluice trough instead of potable water.	4.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
63. Load dishwashers to capacity before running.	4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
64. Run dishwasher close to or at the minimum flow rate and rinse cycle time recommended by the manufacturer; verify that the final rinse pressure and water temperature are within manufacturer recommendations.	4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
65. Ensure manual fill valves close completely after the wash tank is full. Ensure valves and rinse nozzles are inspected and repaired periodically.	4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
66. For conveyor-type dishwashing machines, ensure the rinse bypass drain is adjusted so the wash tank is properly replenished during dishwashing operation.	4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
67. Install wash curtains to retain heat in conveyor-type dishwashing machines; operate conveyor-type machines in auto-mode to save energy.	4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
68. Replace old dishwashers with ENERGY STAR certified models.	4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
69. Ensure wash-down sprayers have a self-closing nozzle and are shut off when not in use.	4.11	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
70. Use a broom or mop instead of a wash-down sprayer to clean floors when possible. Use pressure washers or water brooms when water is needed.	4.11	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable

Outdoor Water Use

71. Plant native or drought-tolerant species.	5.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs. Majority are native species
72. Use mulch (3") around trees and plant beds.	5.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
73. Hire landscape professionals trained and certified in water-efficient or climate-appropriate landscaping.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Implemented through subject experts
74. Incorporate water-, chemical-, and energy-efficient requirements/performance standards into all landscape and irrigation service and maintenance agreements.	5.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team
75. Maintain 4" to 6" of good topsoil to capture and release precipitation back to plants over time.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Implemented through subject experts
76. Balance soil composition with topsoil or compost to restore the soil's water holding capacity and proper drainage.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Implemented through subject experts
77. Remove weeds from any irrigated landscape so water is available for the desired landscaping; pull weeds manually instead of using herbicides.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Periodic maintenance is done
78. Raise the blade on mowers to allow grass to grow longer and more drought-resistant.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Followed
79. Consider letting turfgrass turn brown during dry periods if the species will recover when rainfall returns.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Followed
80. Plant additional trees and shrubbery to increase the amount of shaded area.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Plantation is done, Plant nursery is also implemented
81. Limit the use of turfgrass to areas with functional purposes (e.g., erosion control, recreation, etc.).	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Followed
82. Avoid installing "strip grass," or small, disconnected patches of grass, which are hard to maintain and difficult to water efficiently.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Followed
83. Group plants with similar irrigation needs together so they can be watered effectively using the technique of hydrozoning.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Followed
84. Install WaterSense labeled weather-based irrigation controllers or consider irrigation controllers with rain or soil moisture sensors instead of setting clock timers to water.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required
85. Use drip irrigation to water plant beds, trees, and shrubs.	5.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to follow as required
86. Ensure irrigation schedule is appropriate for climate, soil conditions, plant materials, grading, and the season.	5.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to prepare irrigation schedule
87. Have an irrigation professional certified by a WaterSense labeled program conduct a full audit of the irrigation system every three years.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not required, Insitu experts are available
88. Inspect and repair all irrigation system parts and components regularly as part of standard maintenance procedures. Repair all broken sprinkler heads immediately.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Periodic maintenance is done
89. Check the position and location of sprinkler heads to ensure that they are working properly and water is not being directed onto non-landscaped areas, such as sidewalks.	5.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to follow as required
90. Visually inspect the landscape for water pooling or puddling regularly to prevent damage to plants from overwatering.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Periodic maintenance is done
91. Don't "Set It and Forget It;" adjust irrigation schedules frequently to reflect actual site conditions, including climate, soil conditions, plant materials, grading, and the season.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
92. Adjust the intensity and frequency of watering schedules to fit the soil types and landscape features to encourage deep watering and deep root growth for more healthy plants.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable as of now
93. Install a separate meter to measure water used for irrigation and monitor it regularly to find leaks and problems.	5.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
94. Contact your local wastewater utility to find out if credits are available for the water being applied to the landscape, instead of being discharged to the sewer system.	5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No option available
95. Substitute water from alternative sources for irrigation and decorative water features instead of using potable water.	5.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
96. Recirculate water in decorative fountains, ponds, and waterfalls and consider using non-potable water in these systems.	5.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
97. Shut off water features when possible to reduce evaporation losses and check water recirculation systems annually for leaks and other damage.	5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable

98. Do not hose down sidewalks, driveways, parking lots, tennis courts, pool decks, or other hardscapes; sweep these areas instead, or use a water broom for greater time and water efficiency.	5.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
99. Avoid heating pools above 79°F to minimize evaporation.	5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
101. Reduce water losses from splashing by maintaining the water level a few inches below the top of the pool.	5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
102. Install a pool gutter and grate systems along the edges of the pool to reduce losses from splashing and drag-outs.	5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
103. Monitor water levels in pools regularly—if a pool is losing more than 2" per week, a leak is likely present.	5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
104. Maintain proper pool chemistry to limit pool cleaning and drainage events.	5.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement

Laboratory and Medical Equipment

127. Only purify water when necessary. Treat water to a quality that matches the process requirements.	7.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
128. Program water purification regeneration based on the incoming water hardness and/or flow through the system. Monitor and adjust settings periodically.	7.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
129. Turn off vacuum pumps and steam sterilizers when not in use and program them to only discharge the amount of water necessary to remove impurities and cool the unit.	7.3, 7.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
130. Adjust the tempering water needle valve flow rates to the minimum manufacturer recommendations; change needle valves annually.	7.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
131. Install thermostatically actuated valves to control the flow of cooling water for steam sterilizer condensate discharge.	7.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
132. Replace old steam sterilizers and vacuum pumps with newer models that do not use single-pass cooling or condensate discharge tempering water.	7.3, 7.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
133. Ensure that water flow rates in fume hoods do not exceed manufacturer specifications and recirculating systems do not blowdown or overflow unnecessarily.	7.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
134. Replace old fume hoods with a filtration system that does not require water (e.g., activated carbon).	7.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
135. Inspect and repair worn cage-and-rack washer valves and rinse nozzles.	7.7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
136. Run glassware and cage-and-rack washers only when full.	7.5, 7.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Instructed to Green team to convey it to everyone during awareness programs
137. Ensure that water flows in film processors at the minimum acceptable rate specified and is turned off when the unit is not in use.	7.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
138. Check solenoid valves regularly to ensure flow is stopped when equipment is in standby mode.	7.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
139. Convert traditional film equipment to digital X-ray equipment.	7.8	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable

Onsite Alternative Water Use

140. Explore all alternative sources of water to be used in place of potable water and mark which are available at your facility: <input checked="" type="checkbox"/> Rainwater/stormwater <input type="checkbox"/> Air handler condensate <input type="checkbox"/> Boiler condensate <input type="checkbox"/> Water from single-pass cooling equipment <input type="checkbox"/> Cooling tower blowdown <input checked="" type="checkbox"/> Onsite treated greywater and wastewater <input checked="" type="checkbox"/> Water treatment system reject water	8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Alternative source are suggested such as , Rainwater ,STP treated water for flushing and landscaping.
141. Use onsite alternative water for irrigation, cooling tower make-up, toilet and urinal flushing, fume hood scrubbers, and other uses not requiring potable water.	8.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
142. Match alternative water sources with the expected uses and verify that the sources will provide consistent water supply and quality.	8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested to implement
143. Collect rainwater to irrigate landscapes (where rainwater harvesting is allowed).	8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Artificial pond is created and suggested to improvise it.
144. Use air handler condensate as cooling tower make-up to offset potable water use where possible.	8.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not applicable
145. Recycle rinse water in dishwashers and clothes washers whenever possible (e.g., the last rinse water becomes the next load's wash water).	8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Suggested for Hostel inmates

xi. Water Management, as per university green policy

1. The geographic location of the university provides it with unique opportunities and constraints. Being situated in a wetland ecosystem where the rainwater level is very high means plenty of water during the monsoon seasons, presence of rich wetland ecosystem, but with possibilities of flooding and contamination of the existing water sources. At the same time the university faces water shortage during the summer season. The water management policy of the university should reflect these dilemmas.
2. Rainwater harvesting, the buildings constructed in the university should be provided with rain water harvesting facilities and after proper filtration the rainwater could be utilized for ground water recharging and could be stored in shallow ponds. Decentralized storage should be attempted for a university like ours where large underground storage tanks would become impractical.
3. Drainage map of the university should be prepared which would be basis for water shed management and landscaping.
4. Awareness campaigns on reducing the water wastage in the university.
5. Waste water generated by the university should be calculated and treatment plants should be installed. As a beginning, temporary waste water treatment ponds could be constructed for treating grey water, which could be used for gardening purposes.
6. Toilet waste treatment plants should be there in the long terms plans of the university. The presently used concrete toilet pits are unsustainable in this geography and any crack in this construction would lead to the contamination of fresh water sources leading to serious health hazards for the students and staff.
7. The ponds within the campus and the ecosystem around them should be protected. Nets could be installed over the ponds to avoid falling of dead leaves.

IV. Good Health and Well-being.

i. Campus design caters to differently able people

The campus design ensures to caters differently abled and senior citizens. Following measures are being implemented for differently abled and senior citizens,

- Non-slippery ramps.
- Lifts with braille assistance.
- Preferred parking for differently abled.
- Wheel chair.
- Uniformity in floor level for hindrance-free movement in exterior common areas
- Easy access to the main entrance of the buildings
- Appropriately designed preferred car park spaces having an easy access to the building's main entrance or closer to the lift lobby



Lift with braille assistance.



Preferred parking for differently able



Wheel chair

ii. Tobacco Smoke Control

The institution has taken care to eliminate exposure of students & teachers to tobacco smoke thereby reducing health impacts caused due to passive smoking.



iii. Ozone Depletion

The refrigerant selected for the Air Conditioning System eliminates the emission of compounds that contribute to ozone depletion and global warming. The Air conditioning equipment has been selected with HFC based refrigerant R 410A.



iv. Fire suppression system

The main fire suppression system used is hand held fire extinguishers and are Halon free. Institution has not used any Halon based fire suppression system. Carbon dioxide B C Fire Extinguisher.



Fire suppression system

v. Basic Amenities

Institution has Provide access to basic amenities, so as to reduce negative impacts caused from automobile use and also make it easy for students, basic amenities such as bank, cafeteria, canteen, bus stop in front of the college, railway station within 1.5km and several other basic amenities, within a walking distance of 1 km from the building.



College Canteen



Railway station

vi. Breakout spaces

To enhance physical, emotional and spiritual well-being of campus occupants, the campus has breakout spaces by providing facilities such as, but not limited to gymnasium, yoga, meditation, indoor games, outdoor games, playground, etc.,



Play Ground





Gymnasium



Open auditorium

KREEDOTSAVA-2K22

With the Divine Blessings of Parama Poojya Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji, BGS Institute of Technology has organized Annual Sports Meet KREEDOTSAVA-2K22 from 1st - 4th June 2022 at BGSIT Stadium. Dr. C K Subbaraya, Registrar, Adichunchanagiri University (ACU) inaugurated the sports meet. Dr. B K Narendra, Principal – BGSIT, Dean for Engineering & Management, Dr. Ramesh B, Principal – SACCP, Mr. B.K. Umesh, Finance Officer, ACU, Heads of the various departments, were present during the inauguration ceremony.



Institution has provided Healthcare, Emergency & Security Facilities within the campus with AIMS Hospital and other initiatives such as first-aid/ clinic, pharmacy, emergency alarm, surveillance system etc., in the campus.



vii. Awareness programs

The Department of Psychiatric Nursing organized a Guest lecture on *Epilepsy* in the month of DECEMBER 14th 2022

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Adichunchanagiri University
Adichunchanagiri College of Nursing
NH 75, B G Nagar, Nagamangala Tq, Mandya-571448

Guest Lecturer on
"Epilepsy"

Organized by
Department of Psychiatric Nursing

Date: 15th December, 2022 @ 11.00 A.M.

Guest Speaker
Mr. Jayaprakash C S
Assistant Professor
Dept. of Psychiatric Nursing, Srinivas Institute of Nursing
Mangaluru

Venue:
Seminar Hall, AIMS

Chief convener
Prof. Chandrashekar H C
Professor & Principal

Convener
Prof. Keshavamurthy C D
Professor & HOD

Co-ordinator
Mr. Chethan B S
Assistant Professor



The Department of community health nursing in association with OBG department has organized rally on the occasion of World AIDS day on 01-12-2022

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Adichunchanagiri University

ADICHUNCHANAGIRI
COLLEGE OF NURSING

**RALLY ON
WORLD AIDS DAY**

Date: 01st December 2022 @ 10:30am
Venue: Arani Village

Organized by
Department of Community Health Nursing
in association with
Department of OBG Nursing

Chief Convener
Prof. Chandrashekar H C
Principal

Convener
Prof. Komala H K
Professor & HOD

Coordinator
Mr. Kantharaju S
Assistant Professor



The Department of OBG nursing, Adichunchanagiri College of Nursing, B.G Nagara was organized In service education programme on “Arterial Blood Gas Analysis” on 29.11.2022

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Adichunchanagiri University


Adichunchanagiri College of Nursing
NH 75, B G Nagara, Nagamangala Tq, Mandya-571448

**In-Service Education Programme on
“Arterial Blood Gas Analysis”**

Date
Tuesday, 29th Nov 2022
@ 11:00 am - 1:00 pm

Organised by
Department of OBG Nursing

Venue
ENT OPD, AH&RC



Chief Convener
Prof. Chandrashekar H C
Principal and Professor

Convener
Prof. Victoria Sarvand
Professor & Head of Department

Co-ordinator
Mrs. Ashwini K M
Assistant Professor



The Department of community health nursing has organized a school health Education programme and nutrition exhibition on 29-11-2022

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Adichunchanagiri University


Adichunchanagiri College of Nursing
NH 75, B G Nagara, Nagamangala Tq, Mandya-571448

**Nutrition Programme and
School Health Education Programme**

Date
Tuesday, 29th Nov 2022
@ 10:30 am

Organised by
Department of
Community Health Nursing

Venue
Higher Primary School, Bellur



Chief Convener
Prof. Chandrashekar H C
Principal and Professor

Convener
Prof. Komala H K
Professor & Head of Department

Co-ordinators
Ms. Swamy PGN
Associate Professor

Ms. Kantharaju S
Assistant Professor



The Department of OBG nursing, Adichunchanagiri College of Nursing, B.G Nagara was organized “WORLD PREMATURETY DAY” on 17.11.2022

|| ಜಾಣ್ಮೆ ಸ್ವಾಮ್ಯದ ||


Adichunchanagiri University

Adichunchanagiri College of Nursing

NH 75, B G Nagara, Nagamangala Tq, Mandya-571448

OBSERVING "WORLD PREMATURETY DAY-2022"

Theme: A parent's embrace: A powerful therapy
Enable skin- to- skin contact from the moment of birth



Date
Thursday, 17th Nov 2022
@11:00 am - 1:00 pm

Organised by
Department of OBG Nursing

Venue
Thigalanahalli

<p>Chief Convener Prof. Chandrashekar H C Principal and Professor</p>	<p>Convener Prof. Victoria Sarvand Professor & Head of Department</p>	<p>Co-ordinator Mrs. Ramya R Assistant Professor</p>
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The Department of OBG nursing, has organized an awareness programme on the occasion of “WORLD DIABETES DAY-2022” on 14.11.2022

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Adichunchanagiri University

Adichunchanagiri College of Nursing
NH 75, B G Nagara, Nagamangala Tq, Mandya-571448

OBSERVING “WORLD DIABETES DAY-2022”
Theme: Access to Diabetes Education

Date
Monday, 14th Nov 2022
@11:00 am - 1:00 pm


Organised by
Department of OBG Nursing

Venue
Srirangapura

Chief Convener
Prof. Chandrashekar H C
Principal and Professor

Convener
Prof. Victoria Sarvand
Professor & Head of Department

Co-ordinator
Mrs. Ramya R
Assistant Professor




Adichunchanagiri College of Nursing has organised the audiovisual aids model exhibition on 07th November 2022

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Adichunchanagiri University

Adichunchanagiri College of Nursing
NH 75, B G Nagara, Nagamangala Tq, Mandya-571448

**AUDIOVISUAL AIDS
MODEL EXHIBITION**

Date
Monday, 7th Nov 2022 @ 1.30 pm

Venue
Multipurpose Hall, ACN

Organised by
Department of OBG Nursing

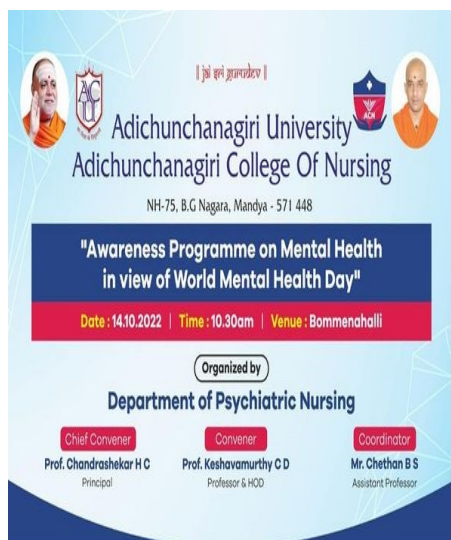
Chief Convener
Prof. Chandrashekar H C
Principal and Professor

Convener
Prof. Victoria Sarvand
Professor and HoD

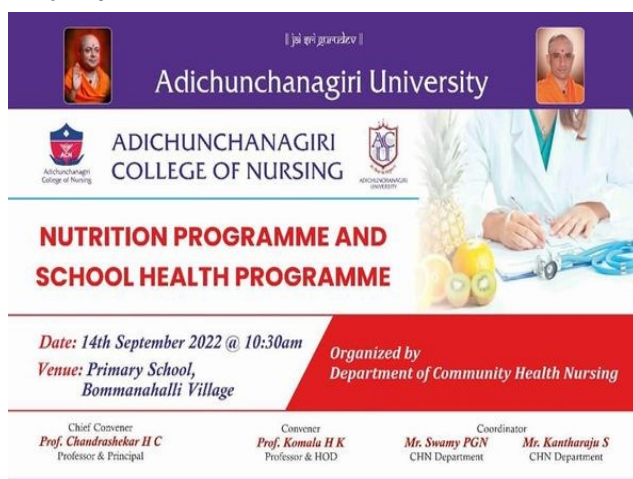
Coordinator
Mrs. Ashwini K M
Assistant Professor




Department of Psychiatric Nursing had conducted a Awareness programme on Mental health in view of World Mental Health Day on October 14th 2022



Department of community health nursing of Adichunchanagiri college of Nursing organized a school health Education programme and nutrition exhibition on 14-9-2022



The Department of OBG Nursing organized a Guest lecture on “ABNORMAL UTERINE CONTRACTION” on 25.08.2022

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Adichunchanagiri University

Adichunchanagiri College of Nursing
NH 75, B G Nagara, Nagamangala Tq, Mandya-571448

Guest Lecture on
ABNORMAL UTERINE CONTRACTIONS

Date
25th Aug 2022 @ 11.30 am

Venue
Multipurpose Hall

Organized by
Organized by Department of OBG Nursing

Guest Speaker
Mrs. RAMYA P
Lecturer
Dept of OBG Nursing
Govt. College of Nursing
Tumkuru

Chief Convener
Prof. Chandrashekar H C
Professor & Principal

Convener
Prof. Victoria Sarvandi
Professor & Head of Department

Coordinator
Mrs. Kavitha N K
Assistant Professor



Department of community health nursing, of ACN organised Breast feeding awareness programme and role play on 18-8-2022, Department of OBG Nursing, Adichunchanagiri College of Nursing, B.G Nagara was organized “CELEBRATION OF WORLD BREASTFEEDING WEEK” on 06.08.2022

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Adichunchanagiri University

ADICHUNCHANAGIRI COLLEGE OF NURSING

Awareness Programme and Role Play on
“BREAST FEEDING”

Date: 18th August 2022 @ 10:30am

Venue: General Hospital Nagamangala

Organized by
Department of Community Health Nursing

Chief Convener
Prof. Chandrashekar H C
Professor & Principal

Convener
Prof. Komala H K
Professor & HOD

Coordinator
Ms. Swamy PGN
Associate Professor

Mr. Kantharaja S
Assistant Professor



Workshop on basic E C G "Life isn't measured in minutes, but in heartbeats"
Department of medical surgical organized workshop on Basic ECG from 01.08.2022 to 02.08.2022

Adichunchanagiri University
 Adichunchanagiri College of Nursing
 NH 75, B G Nagar, Nagamangala Tq, Mandya-571448

Workshop on "BASIC ECG"
 "Life isn't measured in minutes, but in heartbeats"

Date
 01st Aug 2022
 02nd Aug 2022 @ 10:00 am

Venue
 Lecture Hall & Skill Lab, AIMS

Organised by
 Department of Medical Surgical Nursing

Resource Person
Mr. Jeril Cherian
 Principal
 MWT Global Academy Pvt. Ltd.
 A Division of Health Careers Group, Australia

Chief Convener
Prof. Chandrashekar H C
 Professor & Principal

Convener
Mrs. Shobha K R
 Associate Professor & HOD



Community health nursing organized school health program, Puppet show on child safety in Govt. Higher primary on 30.07.2022

Adichunchanagiri University
 ADICHUNCHANAGIRI COLLEGE OF NURSING

SCHOOL HEALTH PROGRAM AND HEALTH EDUCATION ON CHILD SAFETY

Date: 30 - July - 2022 @ 10:00am
 Venue: Government High School Allisandra

Organized by
 Department of Community Health Nursing

Chief Convener
Prof. Chandrashekar H C
 Professor & Principal

Convener
Prof. Komala H K
 Head of Department
 Department of Community Health Nursing

Coordinator
Mr. Swamy PGN
 Associate Professor

SAFETY
 is as simple as ABC
A ALWAYS
B BE
C CAREFUL



Department of community health nursing, Department of Paediatric Nursing, NSS unit of ACN in association with AH&RC organised a school health Education programme on 14-7-2022



V. Waste Management Audit.

Institution facilitate segregation of waste at source to encourage reuse or recycling of materials, thereby avoiding waste being sent to landfills. The waste management is in order with the installation of dust bins. The waste is segregated at source by providing separate dust bins for Biodegradable and Plastic waste. Daily cleaning is carried out and most of the non-biodegradable waste is lifted by the City Municipal service.

Various types of chemical waste are collected and disposed by the Department of Chemistry.

The E-waste and defective item from computer lab is being stored properly. The institution has decided to contact approved E- waste management and Disposal facility in order to dispose E-waste in scientific manner. Hazardous Waste, Radioactive Waste not found.

Institution strongly believes in 3R's **Reduce, Reuse** and **Recycle** of waste as follows,

Reduce: Institution has replaced the use of paper in admissions of the candidates, filling of the examination forms, cash book etc. This has drastically helped in reduction of use of paper. The students also encouraged to use both the sides of the paper for writing tests and are asked to use the paper binding for their academic practical records instead of plastic. Notice and circulars are shared to faculty through email.

Reuse: The E-waste and defective item from computer lab is being stored properly. The institution has decided to contact approved E- waste management and Disposal facility in order to dispose E-waste in scientific manner, which can be reused.

Electronic goods are put to optimum use; the minor repairs are set right by the Laboratory assistants and teaching staff; and the major repairs are handled by the Technical Assistant and are reused. BGSIT has entered into MoU with SOGO Synergy which buys our damaged computers and other non-reparable e-waste and issues a Recycling certificate. SOGO Synergy has a State-Of-The-Art Warehouse measuring 20,000 sq. feet meant for storage, dismantling and recycling of electronic waste with the support of latest technology. The equipment which cannot be refurbished for re-use is dismantled and remanufactured into raw materials (i.e. metals, plastics, glass) to be marketed as recyclable. The company assures that the E-waste does not end up in a landfill. It is sent to an agency authorized by Karnataka State Pollution Control Board (KSCB) for disposal, which processes E-waste in a Zero dumping technology. UPS Batteries are recharged / repaired / exchanged by the suppliers. The waste compact discs and other disposable non-hazardous items are used by students for decoration.

The Wet Waste generated from the institution has entered into an arrangement with a local farmer, who collects wet waste and left over food every evening and uses the same as fodder to his live stock.



Farmer collecting the wet waste from the college canteen.

Recycle: The waste management is in order with the installation of dust bins. The waste is segregated at source by providing separate dust bins for Biodegradable and Plastic waste. Students and staff members are given sufficient information regarding the effective management of the waste generated in the campus.

Organic Waste Management

To ensure effective waste management, so as to avoid organic waste being sent to landfills and to improve sanitation & health. Institution has Installed an on-site waste treatment system for handling organic (food and garden) waste generated in the campus, including buildings. The generated manure or bio-gas will be utilized as appropriate.

Institution is practicing organic waste composting method by implementing the pipe composting undertaken to compost the biodegradable waste collected from Boy's Hostel. The raw waste was put to active composting without any source separation and pulverization. It is a kind of vermi-composting, often called Tube Composting, carried out within a PVC tube.



Tube Composting

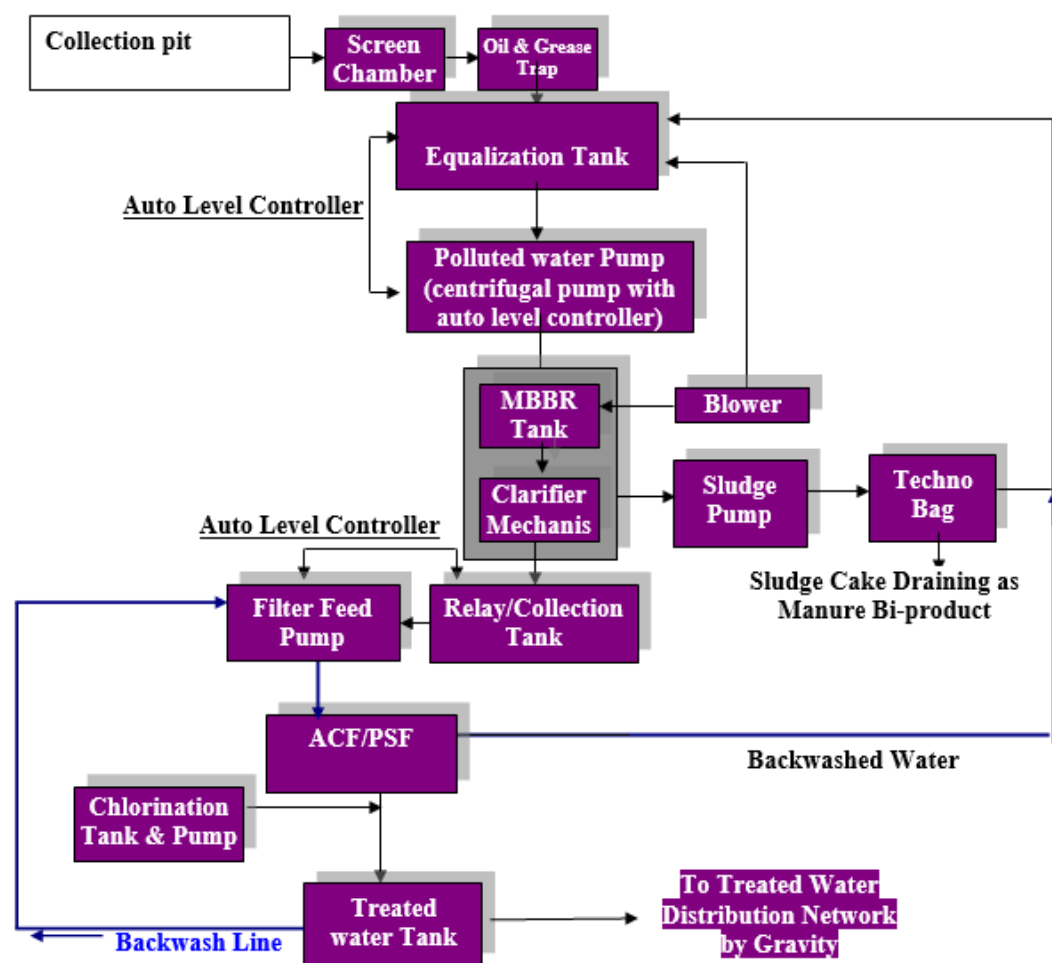
Sewage Treatment Plant

Institution has designed a sewage treatment plant and will treat waste water to tertiary standards, so as not to pollute the water streams, Sewage treatment plant is provided for 750 KLD capacity of Sewage Treatment Plant advanced technology of MBBR wastewater treatment plant.



MBBR unit in Sewage Treatment Plant. Screening unit in Sewage Treatment Plant.

GENERIC FLOW CHART: MBBR BASED DOMESTIC POLLUTED WATER POLLUTION CONTROL EQUIPMENT AND SYSTEM



Hydraulic Flow Drawing for 750kld Sewage Treatment Plant.

Characteristics of Raw Sewage Water

Sl No	Description	Raw Water	Treated Water
1.	Design Capacity	750 KLD	750 KLD
2.	Average Feed Flow	18KL	18KL
3.	Peak/Max. Feed Flow	50KL	50KL
4.	Operating Hours	24 Hours	24 Hours
5.	PH	6.5 – 8.5	6.5 – 8.5
6.	BOD	250 – 400 mg/l	< 20 mg/l
7.	COD	400 – 600 mg/l	< 100 mg/l
8.	TSS	150 – 250 mg/l	< 50 mg/l
9.	Oil & Grease	30 – 80 mg/l	<10

Waste Management plan

Waste Management plan as per university green policy, building up a system though university has implemented Green Protocol and started segregation of wastes, it has still not become fully functional. Efforts should be taken for building up a fully functional system for waste management which should rest on the principles of reduce, reuse, repair, redesign, replenish, refuse, reconsider and recycle.

1. Awareness should be given to the entire university community on waste management and waste segregation.
2. Waste auditing: wastes generated by the university should be audited to ascertain the source, type and amount of waste generated in a year. The yearly action plans should address ways to reduce this waste.
3. The cleaning staff should be authorized to report the increase or decrease in the waste generated by each department and the departments who are able to demonstrate reduction in their levels of waste produced should be honored.
4. The system for waste segregation and storing should be put firmly in place. Segregations should be reorganized into different chambers for storing plastic wastes, e-wastes and other non biodegradable wastes, which could be sold to the vendors during periodic intervals.
5. A panel of vendors, including those who are capable of managing e-waste should be contacted and their periodic removal should be ensured.
6. The fine arts University departments could be approached to find out possibilities of creating works of art from the waste generated from within the

university like, installations, gardens which would ensure the up-cycling of solid wastes.

7. Start reducing the paper wastes (paper recycling unit) through relying more on electronic devices at all levels including governance, examinations, admission, and finance etc. e-governance should be ensured.
8. Bio-gas plants established at the canteen and university hostel premises should be well maintained. The staffs who are managing those plants should be given training about its maintenance. The capacity to create gas from degradable wastes should be explored fully and used in the canteen or hostels.
9. Thumburmuzzi Model Aerobic composting pit could be constructed to manage the biodegradable waste that could not be put into biogas plants.
10. Incinerators should be installed into all women's toilets and properly maintained. The female students should be given awareness on the use of alternative eco-friendly ways of managing menstruation.

The Department of Nursing Foundation organized guest lecture on “Bio Medical Waste Management” on 04.11.2022



VI. Green Policy and Education.

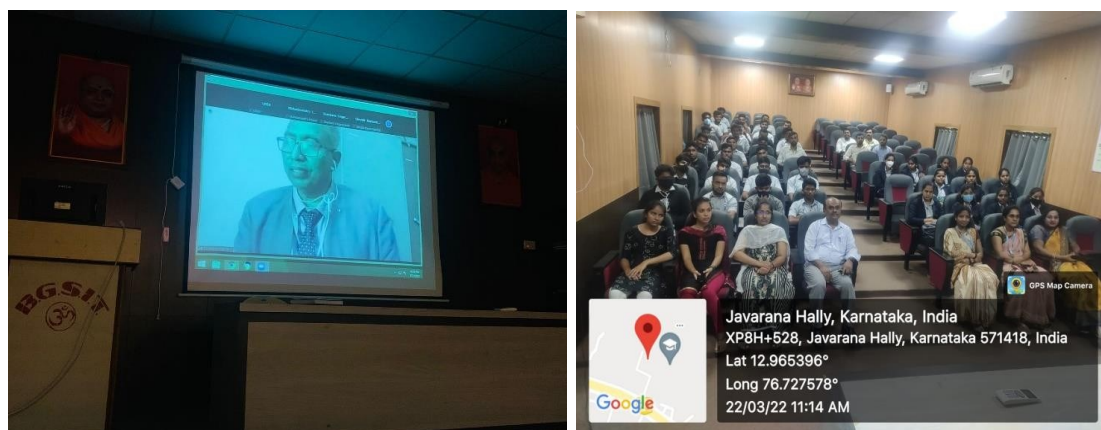
The institution promotes green education by involving students, local communities to increase awareness levels and encourage implementation of eco-friendly practices through Eco Club.

Eco Club helps the students to understand environment, environmental law and their role in the environmental protection. The institution conduct lot of programmes and awareness initiatives relating to protection of environment. In this regard many activities are conducted by the club periodically, such activities include many outreach and educational programmes in a year with the involvement of campus occupants, local communities to increase public awareness on environment sustainability and green features of the campus.

The whole campus involved in the Swachh Bharat Abhiyan by creating awareness around the institution regarding clean India mission by keeping their campus and its premises clean all the staffs and students were participated and made the mission successful in the whole campus.

Every year **Environmental Day**, **Earth Day** and **Water Day** is celebrated in the institution. Plantation activities are taken up to bring awareness and to increase the green coverage area in and around the campus.

Adichunchanagiri University – BGS Institute of Technology, BG Nagara, has Conducted Webinar on World Water Day and World Forest Day



A webinar was organized at Civil dept. seminar hall on 22/3/2021 at 11.00 am on the occasion of World Water Day and World Forest Day.

The resource person was Dr. Shashishankar A, Prof & Head, Dept. of Civil Engg, AMC College of Engineering, Bangalore, Dr. B K Narendra, Principal, Department Head, staff and students attended the webinar. Dr. T Mahadevaiah, Head, Dept. of Civil Engg extended warm welcome to the guest and all the attendees and in his presidential remarks stated about the importance and preservation of water.

The program then proceeded with the detail presentation by the chief guest Dr Shashishankar A on the topic “Artificial Intelligence Systems for Water Treatment

Plant Optimization”. The content of the topic was very informative. He addressed the gathering about the importance and feasibility of using Artificial Intelligence system in the existing water treatment plants.

Celebration of World Water Day and World Forest Day



“World Earth Day”

Every year on April 22, “World Earth Day” is observed to raise awareness about environmental protection and to address the global climate problem. BGS Institute of Technology also celebrated “World Earth Day” with the motive of preserving nature by spreading awareness among the students. Each passing year, the climate worsens, and it is our responsibility to assist in the conservation and preservation of Mother Nature. The theme for Earth Day 2022 is Invest in Our Planet. Earth day was celebrated on 22 April 2022 at 11am at BGSIT Seminar hall. Earth Day pledge was taken by the dignitaries, HODs, faculty members and students to save earth by promoting the habit of Reduce, Reuse & Recycle of the natural resources.

Dr. K. Byrappa, Pro Vice-Chancellor, Adichunchanagiri University addressed on theme “Invest on our planet earth “ and shared his knowledge on nuclear disposal effects, ecological imbalance due to deforestation, effect of synthetic fertilizers on water resources, reuse of concrete waste, conservation of water bodies. He also shared

his insights on research on artificial earthquake, reduction of plastic in daily life, sustainable development, and use of renewable energy- shifting from conventional to non-conventional resource usage.

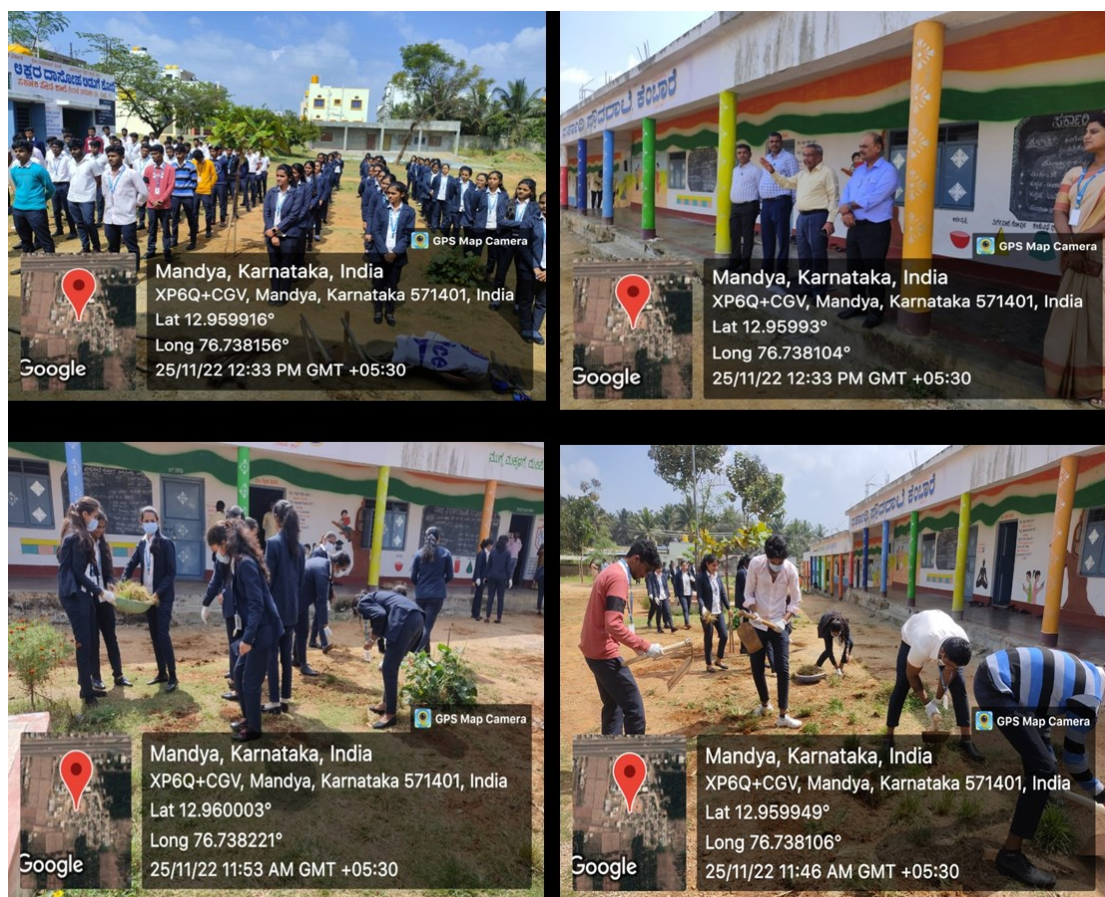
Dr. C. K. Subbaraya, Registrar, Adichunchanagiri University addressed the gathering and motivated the students for the ecological balance, reducing the pollution, deforestation.

Dr. B. K. Narendra Principal - BGSIT and Dean of Engineering & Management spoke on Importance of ecological balance to save earth. Dr. T. Mahadevaiah, Vice-Principal and Head, Dept. of Civil Engg. - BGSIT, extended welcome to all the participants.

Ms. Triveni & Mr. Sharath Babu, 1st year MBA students spoke on the importance of Earth day. Heads of the various Engineering Departments, Faculty members of Civil Engg and MBA Department were present. More than 160 students participated in the program



NATIONAL SERVICE SCHEME UNIT-13 “SWACHH Activities



ACU-BGSIT, BG Nagara BGSIT NSS Unit 13 volunteers of BGSIT-ACU were actively involved in Swachh Bharat activities on 25.11.2022

NSS Unit 13 volunteers of BGSIT-ACU were actively involved in Swachh Bharat activities, plantation, creating awareness on waste disposal, (degradable and non-degradable) ground water harvesting etc. On 25.11.2022, NSS Unit 13-Volunteers of BGSIT-ACU Mandya assembled at Government Higher Primary & High School, Kembare to carryout Swachh Bharath activities. On that day 117 Volunteers were actively involved in clearing the campus, the Volunteers collected all the plastic waste, tea cups, and trash bags and properly disposed off. They also removed the weeds and unwanted plants in the garden area. The NSS Volunteers actively participated in the program and it was well appreciated by the School authorities.

Azadi Ka Amrit Mahotsav Through Green & Clean Energy

SACCP have organized a workshop on the theme 'Azadi ka Amrit Mahotsav Through Green & Clean Energy'. First year Pharm D and PG Students are actively Participated in the workshop. The workshop was helpful to the students. The certificates were distributed to all the participants, After the completion of the workshop Quiz was conducted by the Speaker in that 2 students got the first place and 5 have got the second place. The resource person was Mr. V. S Baskar. Faculty, Petroleum Conservation Research Association, Bangalore, on a topic 'Energy conservation with relevance to social responsibility and Environment'.

Cleanliness Drive

Institutional NSS team participated in one day Cleanliness Drive organised by NSS Cell, Adichunchangiri University on 17th June 2022 at Bhrammadevarahalli village. The main objective of this programme was to spread awareness among the village people about the significance of Cleanliness and its benefits. During the drive volunteers performed the street play to create awareness about environmental pollution and its hazardous effect on mankind. Around 200 school students were present during the play.



Department of community health nursing, Department of Paediatric nursing, NSS unit of ACN in association with AH&RC organised a school health Education programme on 14-7-2022



Adichunchanagiri College of Nursing Organized "Swatcha Bharath Abhiyan" on 07.04.2022 at Chakenahalli village by the NSS Unit of ACN



On the occasion of world environment day NSS unit and department of community health nursing along with principal and faculty member celebrated meaningfully by planting tree saplings in ACN campus on 05.06.2022



An “**IGBC Student Chapter**” is being established with the following objectives: Spread awareness on Green Buildings amongst the student community. Ignite the idea of green in young minds, thereby facilitating India to become one of the global leaders in embracing green building concepts by 2025.

BGS Institute of Technology is a **Member of Indian Green Building Council** and **IGBC Student chapter** is launched in the campus.



The IGBC Student Chapter will benefit from activities such as:

- Training sessions for students
- Presentations and lectures by experts on Green Buildings
- Opportunities to participate in IGBC Events
- Internship opportunities for Students on Green Building
- Green Building Missions
- Design competition
- Participation in Chapter meetings

VII. Transportation.

Vehicles are one of the largest contributors to both energy use & environmental pollution. The institute has encouraged students & teachers to adopt environment friendly transit systems to minimize Environmental impact from automobile use.

i. Pedestrian Network

To Encourage safe and comfortable walking experience by providing well designed interconnected pedestrian network within the campus between main buildings and basic amenities, with proper shading and adequate illumination levels.

Keeping campus occupant's safety as a priority, considering National highway as a risk factor while commuting between campus. Institution has come up with subway, which is an alternative route which avoids main road also it is less congested, environmental friendly and simply more scenic and enjoyable.



ii. Sustainable Transportation

Institution has provided access to Sustainable Transportation by providing Shuttle service and Public transport.



Sustainable transportation through Electric car, to travel inside the campus.

VIII. Awards and Recognitions

National Accreditation Board for Testing and Calibration Laboratories

CERTIFICATION OF ACCREDITATION ISO 15189: 2012

		National Accreditation Board for Testing and Calibration Laboratories
CERTIFICATE OF ACCREDITATION		
VIROLOGY LABORATORY, ADICHUNCHANAGIRI HOSPITAL AND RESEARCH CENTRE		
has been assessed and accredited in accordance with the standard		
ISO 15189:2012		
"Medical laboratories - Requirements for quality and competence"		
for its facilities at		
BALAGANGADHARANATHANAGARA, BELLURU HOBLI, NAGAMANGALA TALUK, MANDYA, KARNATAKA, INDIA		
in the field of		
Medical Testing		
Certificate Number:	MC-3451	
Issue Date:	03/07/2020	Valid Until: 02/07/2022
This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)		
Name of Legal Identity : SRI ADICHUNCHANAGIRI SHIKSHANA TRUST		
Signed for and on behalf of NABL		
	 N. Venkateswaran Chief Executive Officer	

National Accreditation Board for Hospitals & Healthcare Providers

CERTIFICATION - AHRC

Valid from : June 12, 2020

Valid thru : June 11, 2022

Certificate ID: PEH-2020-1268



CEGR Award Certification
CENTER FOR EDUCATION GROWTH AND RESEARCH

Best Medical College in South India for Excellent Services 2021



District Green Champion Certificate

*DISTRICT GREEN CHAMPION FOR MANDYA DISTRICT KARNATAKA STATE FOR THE
ACADEMIC YEAR 2020-21.*

Swachhta Action Plan Committee, adopted and implemented best practices in the areas of Sanitation, Hygiene, Waste Management, Water Management, Energy Management and Greenery Management.



IX. Observation and Recommendation

Observations of the Green Audit

1. Signages have been well maintained at all applicable places in all campuses
2. Paper consumption is monitored in all buildings
3. Waste bins/containers are available at appropriate places. Separate bins are kept for different types of wastes. Waste quantity is monitored
4. E-waste is returned to suppliers for disposal
5. Used Lead-acid batteries are returned to manufacturers or their agents during replacement
6. More 500 number of saplings are planted as a part of NSS and other activity in and around the campus
7. Environment friendly cleaning agents were used for cleaning of floors and toilets at all the campuses
8. Oil cans stored are provided with secondary containment in all campuses
9. Fire-extinguishers are periodically refilled in all campuses
10. Mock drills are carried out towards fire emergencies
11. First aid kits are available in all campuses on each floor at convenient places and monitored for availability of all the items
12. University is successfully implementing majority of the suggestions and recommendation provided in previous 4 years' audit.

Recommendation

1. Training on sustainability should be provided.
2. In future refrigerant selected for the Air Conditioning System to be selected with HFC based refrigerant like R 410A.
3. Adopt the proposed Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact of its purchasing decisions.
4. Practice Institutional Ecology- Set an example of environmental responsibility by establishing institutional ecology policies and practices of resource conservation, recycling, waste reduction, and environmentally sound operations
5. Involve All Stakeholders- Encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development.
6. Renovation of cooking system in the canteen to save gas by installation solar water heater system with heat pump.
7. Tree ownership can be given to employees
8. Develop a butterfly garden that arouses appreciation towards flora and fauna diversity.
9. Sanitary waste: Sanitary napkin burning machine/destroyer called as incinerator" in the ladies' washroom to be installed in every ladies' toilet for a greener tomorrow.

Annex 1
ISO17020:2012



Annex 2
ISO9001:2015



Certificate of Registration

This is to certify that

GREEN AURA
#692 F, 12TH A CROSS BEL LAYOUT, BHARATHNAGAR, MAGADI ROAD,
BENGALURU KARNATAKA, 560091, INDIA

has been independently assessed by QRO
and is compliant with the requirement of:

ISO 9001:2015
Quality Management System

For the following scope of activities:

**GREEN BUILDING SERVICES, CONSTRUCTION, INTERIOR DESIGN,
GREEN AUDITING, SUSTAINABLE SERVICES**

Date of Certification: 14th January 2023
1st Surveillance Audit Due: 13th January 2024

2nd Surveillance Audit Due: 13th January 2025
Certificate Expiry: 13th January 2026

Certificate Number: 305023011402Q




Head of Certification


Validity of this certificate is subject to annual surveillance audits to be done successfully on or before 365 days from date of the audit.
(In case surveillance audit is not allowed to be conducted this certificate shall be suspended / withdrawn).
The Validity of this certificate can be verified at www.qrocert.org
This certificate of registration remains the property of QRO Certification LLP and shall be returned immediately upon request.

India Office : QRO Certification LLP
142, 1st Floor, Avatar Enclave, Near Paschim Vihar West Metro Station, Delhi-110063, (INDIA)
Website : www.qrocert.org, E-mail : info@qrocert.org

Annex 3
Green and Energy certification

 **BUREAU OF ENERGY EFFICIENCY**

Examination Registration No.: **EA- 7271**
Accreditation Registration No.: **AEA-284**



Certificate of Accreditation

This is to certify that Mr./Ms. **Shri. Rajesh Kumar Singadiya** having its trade/registered office at has been given accreditation as accredited energy auditor. The certificate shall be effective from **9th** day of **May, 2018**.


The certificate is subject to the provisions of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

This certificate shall be valid until it is cancelled under regulation 9 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

On cancellation, the certificate of accreditation shall be surrendered to the Bureau within fifteen days from the date of receipt of order of cancellation.

Your name has been entered at AEA No. **284** in the register of list of accredited energy auditors. Your name shall be liable to be struck out on the grounds specified in regulation 8 of the Bureau of Energy Efficiency (Qualifications for Accredited Energy Auditors and Maintenance of their List) Regulations, 2010.

Given under the seal of the Bureau of Energy Efficiency, Ministry of Power, this **5th** day of **October, 2018**


Secretary,
Bureau of Energy Efficiency
New Delhi

GREEN BUSINESS CERTIFICATION INC. CERTIFIES THAT

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HAS ATTAINED THE DESIGNATION OF

LEED® Green Associate™

by demonstrating the knowledge and understanding of
green building practices and principles needed to
support the use of the LEED green building program.

Mallesh Ramarajan

MALESH RAMARAJAN
PRESIDENT & CEO, U.S. GREEN BUILDING COUNCIL
PRESIDENT & CEO, GREEN BUSINESS CERTIFICATION INC.





Built Environment Sustainability & Transformation



Built Environment Sustainability & Transformation