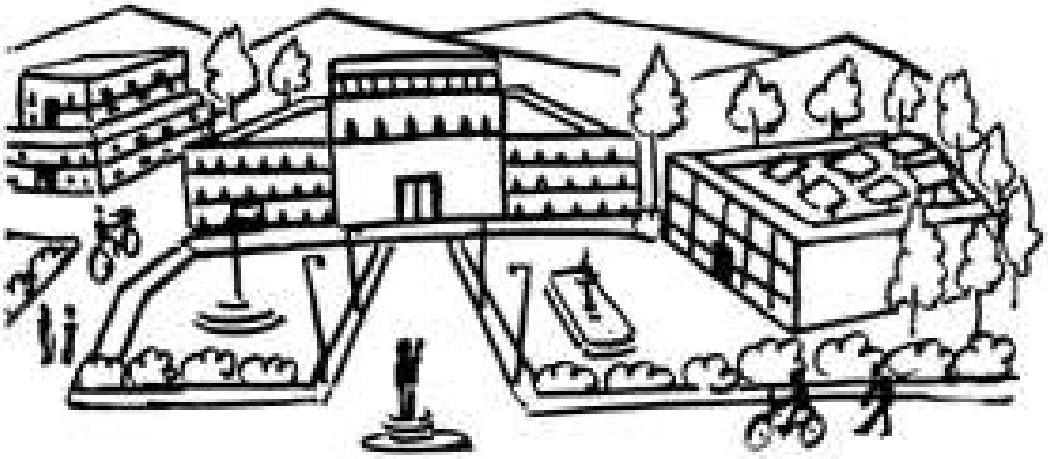
Swachh Campus 2019

Institutional Achievements

MHRD
Department of Higher Education
Ministry of Human Resource Development
Government of India



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Foreword

Our Educational Institutions are torch bearers of change. Now they are turning into harbingers of national movement for promoting cleanliness. Their keen interest to keep campuses clean and take this message to the communities with whom they are engaged with has been an important contribution this year 2019. Universities and Higher Educational institutions turning into green smart campuses are focusing on cleanliness, waste management, water conservation as well as wastewater management. Saving water and electricity, conserving energy, harvesting rain water, tapping solar energy and promoting cleanliness are indicators to measure a smart campus. Such endeavours by Higher Education Institutions need to be welcomed and supported time to time.

Exercise to rank Universities and Higher Educational Institutions (HEI) on the basis of cleanliness and hygiene has become annual now. They are focusing on factors such as student: toilet, ratio, kitchen hygiene, campus green cover, solid and liquid waste management, garbage disposal, solar energy usage and other relevant areas. Some of the best practices followed by them are documented here at the instance of the Department of Higher Education in Ministry of Human Resource Development Government of India.

Dr W G Prasanna Kumar

Chairman MGNCRE

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ABVIITM
Gwalior Madhya Pradesh

Atal Bihari Vajpayee Indian Institute of Information Technology and Management, Gwalior (A\BV-IIITM Gwalior), was established in 1997-98 with a mandate for education, research and training in the cusp areas of IT and Management. The institute, first of its kind in India, combining both IT and management was established by the Government of India as an apex autonomous institute to cater to the growing needs of the IT industry. Institute got the status of Institute of National Importance in the year 2014.

Student Strength	1113
Staff Strength (Full Time)	39
Guest Faculty	15

Residential Facilities

There are 3 boys hostels and 1 girls hostel in the campus. Each hostel comprises students of all years. Institute has supply of Hot and Cold Water round the clock. Hot water is supplied through the Solar Panel installed in hostel. The hostels have modern toilets that are cleaned thrice a day. Solar based water pump and geysers are also installed in hostel.

Solid and Liquid Waste Management

There is a systematic collection of waste from hostels and dust-bins are placed at appropriate places and efforts are made for recycling the waste. Bio-degradable and non-degradable waste is segregated; efforts are made for preparing the compost for the institute and reduce usage of plastics.

Plant waste is collected regularly and dumped at a source in pits. There are 8 such dumping pits of aggregate capacity of 2,500cu.m for non-biodegradable garbage, building debris and remaining for bio-degradable waste. The dumped plant waste is allowed to decompose naturally. Pits which were filled up in 2013 and 2014 have decomposed fully and compost from these pits is being used internally as fertilizer for trees and new plants at nursery and elsewhere in the campus. Thus the campus is non-polluting , eco-friendly, enriching environment and self-sustained.


Hostel Kitchen Facilities

The hostel Kitchens are well equipped. Every hostel has its own mess and canteen facilities. There is 24x7 supply of RO water. A water cooler is placed on each floor of each hostel.

Campus Greenery

ABV-IIITM Gwalior comprises of 6,05,450 Sq. m. of land. As a result of well-planned campus, buildings parking places and roads are constructed only on 69,000 Sq.m. of land. This accounts to 11.39% of total area. Remaining approx. 88.6% area is developed green by way of planting trees in a well-planned manner.

Institute has successfully grown around 12000 trees of approx. 112 species. Almost all species have medicinal properties and help in reducing the carbon footprint of the campus.

5 solar powered submersible pumps are installed for irrigation of plants. 4.5-kilometer-long HDPE pipe line with 124 stand posts are exclusively built for watering the trees, lawns and nursery.

Solar Powered submersible pump Solar photovoltaic Array modules 300WpX6=1800 Wp, with manual tracking system, submersible DC pump, discharge 18,000LPD with 80 m. head. Total power: 5 solar panels with a capacity of 8KW each are installed. Water used mainly for horticulture but can supplement main supply in emergency.



Adopted Villages: The institute has adopted two villages Utila and Tiholi around its campus (Gwalior - Madhya Pradesh).

Intervention Undertaken in the Villages:

Nearly 2000 students volunteered for cleanliness drives at the above villages. The students have participated with primary focus of conducting awareness campaigns, door-to-door visits, and movie-screenings to sensitize the villagers about hygiene and its benefits. Following is inclusive list of activities carried by students:

Organizing cleanliness drives: The hygiene drive included awareness campaigning through PowerPoint Presentations, Movie Screenings, Door-to-Door Cleanliness Discussions, Solid Waste Collections, Arranging Medical/ Health Awareness through Medical officers, etc.

One-to-One Discussions were held with villagers that emphasized upon the importance of hygiene and sanitation as well as its implementation in the daily lives.·

Demonstration of water harvesting techniques: A variety of water harvesting techniques and its optimum utilization in farm usages were shown to the villagers.

Sanitation Drive and Door-to-Door awareness rallies were conducted to influence people: Influential people from the villages were felicitated and were designated as `Swachhata Dooth', for which they

will carry forward this mission and motivate villagers to inculcate cleanliness and importance of cleanliness.

In schools, Cartoon based movies were screened to sensitize school children. Singing Competitions, Poem Competitions, Painting Competitions and Essay Writing Competitions were organized for school children on themes of Swachhta.

Dust-bins for waste collection have been distributed to all visited villages. Awareness on waste segregation of hazards of Plastic Wastes, Medical Wastes, etc. was spread.

Outcomes

- The institute houses 1113 students, 39 full time faculty and 15 visiting and guest faculty(s)
- There are 3 boys hostels and 1 girls hostel in the campus
- The institute Adopted solar energy by installing solar panels in the campus of significant capacity
- The institute installed solar water heaters with a capacity of 500 lit. 26 Installed at 4 Hostels , MDP and IVH
- The institute has built Electric driven cart 6 seater with Battery48V(volts): 25A(amperes). 2 Batteries will be recharged by solar power generated electricity. Roof top grid connected solar power plant 500+ 200 Kw capacity 1+1 Under progress
- Waste is managed appropriately by segregating bio-degradable waste and non-degradable waste into different bins. Compost pit is constructed to scrapheap the liquid waste
- Water is used mainly for horticulture but can supplement main supply in emergency
- The institute has adopted two villages Utila and Tiholi around its campus (Gwalior - Madhya Pradesh)
- The institute conducted One-to-One Discussions with villagers that emphasized upon the importance of hygiene and sanitation as well as its implementation in the daily lives
- Institute conducted awareness programs on hygiene, sanitation, healthcare in schools and conducted transect walk
- The institute distributed dust-bins in visited village as a part of Awareness program on waste segregation
- students of the institute have demonstrated a variety of water harvesting techniques and its optimum utilization in farm usages

AJK College of Arts and Science
Navakkarai Coimbatore

A. J. K. College of Arts And Science, Tamil Nadu was established in 1999 by Tamil Nadu State Education Trust. It is a pioneer, self-financing, co-educational Institution, situated in serene green surroundings at Namakkal. It is the first self-financing Institution started in Coimbatore District. It is affiliated to the Bharathiar University.

Student Strength	**1355**
Faculty Strength	**75**

Residential Facilities

The college has two separate hostels for men and women. The hostels are equipped with modern toilets that are hygienic and maintained regularly, push pockets are used in all the toilets in both hostels and college to save water. Each hostel has disabled friendly rooms. There are napkin wending machine along with incinerators in all the girl's toilets to ensure good hygiene. The college uses advanced solutions for efficient water supplies, wastewater treatment, water recycling and rainwater harvesting.

Solid and Liquid Waste Management

The college uses three types of garbage collecting bins to segregate biodegradable, non-biodegradable and recyclable waste. Food waste is sent to the piggery plant and the other organic waste like garden waste, kitchen waste and paper are turned into manure by microorganisms in the vermin-compost pit situated in the college. Selected plant waste materials are used by the Mushroom Cultivation unit in the college.

The college disposes the liquid waste by dewatering, sedimentation and composting. The recycled water is used for irrigation. AJKCAS encourages organic gardening and offer spaces where students can also participate in creating their own healthy gardens.

Kitchen Facilities

The kitchen in the campus is spacious and equipped with modern machineries like dough maker, refrigerators, ovens, gas stoves, *kitchen*-type sink with water facility and chimney. The college is particular about cooking nutritious, tasty and hygienic meals for their students and faculty members. The dining area is cleaned with proper cleaning aids three times a day. The college ensures usage of uniforms and hygienic accessories like head cap, glows, shoes for cooks and workers in the kitchen.

Campus Greenery

The college has a 70% green cover. Drip irrigation is used to water the trees, lawns and gardens. The college uses green practices like plastic free campus, maximum green cover and use of eco-friendly products and bicycles as primary mode of transportation inside the campus. For environmental sustainability the college follows and has adopted policies to reduce greenhouse gas emissions by encouraging students and staff to use the public mode of transport and alternate transportation such as bicycle and carpooling to reduce the carbon foot print.

Solar power and Rain Water Harvesting

The college has a 100% rain water harvesting system with 30 feet deep pit, which is connected to all areas inside the campus. The road side rain water drain is connected to the campus rain water reservoir. The aim is to recharge the ground water for regular use without contaminating the ground water. The Reverse Osmosis (RO) system waste water is also connected to the rain water harvest reservoir.The college supplements its huge electricity power through solar power energy system. The college initiated the use of solar energy from 2014 with a capacity of 4 KV. The college has the CFL bulbs with LED ones to save electricity.

Adopted villages: Puthupathy, Chinnampathy , Murugampathy, Pichanur and Mavuthampathy in Madhukkrai block of Coimbatore

Families Benefited: 1500

The college has adopted these 5 villages and undertakes Swachhta awareness programs and regular extension activities throughout the year.

Intervention Undertaken in the Villages:

- The college has renovated five individual toilets in Puthupathy tribal village which were damaged and not-in-use condition. These villages have been declared ODF by the block development officer of Madhukarai due to the continuous awareness on open defecation and door to door campaign in these villages.
- Plastic usage in the adopted villages was rampant, especially in Pichanur village. The institution organised continuous awareness programmes, door to door campaigns, distributed pamphlets, and awareness rallies on a regular basis in all the five villages. The college also collected the single use plastics from each home and replaced it with cloth bags. The college distributed 10,000 cloth bags to the villagers and shopkeepers during the plastic free Navakkarai program at Mavuthampathy village, free of cost in order to make the village clean.
- As a part of natural water resource management, the NSS volunteers collected 600 dried Palmyra fruits and segregated the seeds. The volunteers planted Palmyra seeds in and around the adopted villages with the permission of the forest department. The college has planted more than thousand saplings of neem, pungan,tamarind, teakwood, banyan and sandal and also some fruit trees like mango, sapota in and around the five adopted villages. The college has planted 2000 malaivembu trees inside the campus to prevent rise in temperature.
- The college conducted human animal conflict program at Chinnampathy and Puthupathy, since these tribal villages are situated near the forest area.
- The college has dredged a pond near the campus to facilitate the dwellers nearby.
- Two water tanks were donated to Pichanur village where water storing facility was not available. The college donated 2 trolleys to Pichanur Panchayat for taking waste from the households. The college has conducted various programs like general medical camps, eye camps, dermatology camp and skin care program and health and hygiene sanitation programs in these 5 villages. Apart from these, the college also continuously offers basic

amenities like footwear, dresses, stationary items and plates for tribal school children and villagers.





Outcomes

- The hostels are equipped with modern toilets that are hygienic and maintained regularly, push pockets are used in all the toilets in both hostels and college to save water
- Each hostel has disabled friendly rooms
- The girl's hostel has napkin wending machine along with incinerators in all the girl's toilets to ensure good hygiene
- The college uses three types of garbage collecting bins to segregate biodegradable, non-biodegradable and recyclable waste
- The college disposes the liquid waste by dewatering, sedimentation and composting
- The recycled water in the campus is used for irrigation
- AJKCAS encourages organic gardening and offer spaces where students can also participate in creating their own healthy gardens
- The kitchen in the campus is spacious and equipped with modern machineries
- The college ensures usage of uniforms and hygienic accessories like head cap, glows, shoes for cooks and workers in the kitchen
- The college has a 70% green cover
- the college follows and has adopted policies to reduce greenhouse gas emissions by encouraging students and staff to use the public mode of transport and alternate transportation such as bicycle and carpooling to reduce the carbon foot print
- The college has a 100% rain water harvesting system with 30 feet deep pit, which is connected to all areas inside the campus.
- The college has the CFL bulbs with LED ones to save electricity.
- The college has adopted these 5 villages
- These villages have been declared ODF by the block development officer of Madhukarai due to the continuous awareness on open defecation and door to door campaign in these villages
- Around 1500 families from these adopted villages have benefited through the college`s Swachhta awareness programs
- The college has renovated five individual toilets in Puthupathy tribal village
- As a part of the plastic awareness program, the college collected the single use plastics from each home and replaced it with cloth bags
- The college has dredged a pond near the campus to facilitate the dwellers nearby
- Two water tanks were donated to Pichanur village where water storing facility was not available
- The college donated 2 trolleys to Pichanur Panchayat for taking waste from the households.
- The college also continuously offers basic amenities like footwear, dresses, stationary items and plates for tribal school children and villagers
- The college has conducted various programs like general medical camps, eye camps, dermatology camp and skin care program and health and hygiene sanitation programs in these 5 villages

Algappa University Sivaganga Karaikudi Tamil Nadu

Alagappa University was brought into existence by a Special Act of the Government of Tamil Nadu in May 1985 with the objective of fostering research, development and dissemination of knowledge in various branches of learning. Alagappa University is recognized by the University Grants Commission (UGC) of India. The University has 44 Departments, 9 Centres and 2 Constituent Colleges on its campus. 46 affiliated colleges located in the district are part of the university.

Student Strength	4459
Faculty Stvrength	196

Residential Facilities

The total number of hostels is 15 with in-mates strength of 1493. Toilets are provided with adequate exhaust and air vents. Modernized cleaning equipment is used for cleaning the toilets two times in a day and well maintained. Modernized and purified quality water supply system with sufficient water storage capacity is present in the hostel. There is provision for safe handling and storage of chemicals as a precautionary measure.

Solid and Liquid Waste Management

Segregated garbage bins are used for waste collection such as green bins for degradable wastes, blue bins for non-degradable wastes and red bins for bio-hazard – laboratory wastes. Bio-gas plants process food wastes for producing bio-gas used for cooking in hostels. Solid waste management is done through fuel free solid disposal unit by using the incinerator. Farm waste management is done through a shredder at five places in the campus. Vermicomposting and bio-fertilizer production is done from the solid waste generated in the campus.

Technology for Solid Waste Management and Vermi Composting Unit

Grey water plants are used in hostels for the utilization of recycled water for washing and other purposes.

Hostel Kitchen Facilities

Modern mechanism of food preparation and cooking equipment is provided in the kitchen. Dining halls have tiled floors and with modern furniture. Hygiene is ensured in the kitchen and dining room surroundings. Cooks and workers have a uniform dress code.

Dough mixing and Chapatti Making Machine
(Avg. 500 Chapattis per Hr.)

Rice Cooking Machine
(Avg. 20 Kgs in ~15 Mins.)

Idli Cooking Machine
(Avg. 300 idlis in ~7 Mins.)

Neat and Hygienic Dining Halls

Campus Greenery

There are 6 lakhs sq. ft. land area of gardens at five campuses of the institute. The project under `One Student One Tree Scheme' planned for plantation of one lakh saplings of plants and as on date 63,000 saplings have been planted. Drip irrigation and sprinklers are used in all the gardens. Provision has been made for rain water harvesting and percolation tank.

Administrative Block

Faculty of Management

Alagappar Alumni Garden

Tourism & Hotel Management

Innovative Usage of Technology

Roof top solar power plants have been installed at three places with a capacity to generate power of 27 KW. Total power required is 1 MW. The university has planned to install solar plant for the power production of 0.8 MW under RUSA Phase 2.0 scheme.

Adopted Village: Ariyakkudi

Families Benefited: The total number of families in the village are 1376 with a total population of 5538 and as per the 2011 census the number of males were 2768 and female were 2770.

Type of Interventions Undertaken in the Area

The following interventions were undertaken in Ariyakkudi village viz., awareness programmes on ODF and prevention of plastic usage, orientation programmes on solid and liquid waste management, awareness on rain water harvesting, implementation of Swachh Bharat activities such as neat and clean campaign, health awareness and medical camp and laying and repairing of roads and pathways.

Awareness Paintings in the Walls

Cleaning Campaigns

Yoga Training at Schools

Healthcare Camps

Before our Service

After our Service

Street cleaning

Drains and back alleys cleaning

Door to Door Campaign

This adopted Village 'Ariyakudi' has been announced as 100% ODF Village on 02.10.2018

Outcomes

- Provision of modernized and purified quality water supply system with sufficient water storage capacity
- Toilets provided with adequate exhaust and air vents
- Usage of segregated garbage bins for waste collection such as green bins for degradable wastes, blue bins for non-degradable wastes and red bins for bio-hazard – laboratory wastes
- Hygiene is ensured in the kitchen and dining room surroundings
- Implementation of the project 'One Student One Tree Scheme' for plantation of one lakh plant saplings
- Vermi-composting and bio-fertilizer production from solid waste
- Gardens well-maintained by drip irrigation and sprinklers
- Installation of roof top solar power with a capacity of 27 KW
- Implementation of Swachh Bharat activities such as neat and clean campaign, health awareness and medical camp and laying and repairing of roads and pathways.

Amrita Vishwa Vidyapeetham Ettimadai Coimbatore

Amrita Vishwa Vidyapeetham is a multi-campus, multi-disciplinary research academia. It is spread across six campuses in three states of India - Kerala, Tamil Nadu and Karnataka, with the headquarters at Ettimadai, Coimbatore, Tamil Nadu. Amrita Vishwa Vidyapeetham continuously collaborates with top US universities including Ivy league universities and top European universities for regular student exchange programs, and has emerged as one of the fastest growing institutions of higher learning in India. The institution is managed by the Mata Amritanandamayi Math.

Residential Facilities

The 9 hostels at Amrita Vishwa Vidyapeetham (7 for boys and 2 for girls) are located in the beautiful backdrop of the Western Ghats. The rooms are either single, double or have four beds. Each hostel has a mess hall with separate dish washing facility. About 124 water dispensers have been provided across the hostels and academic blocks.

Toilets and Water-Supply Systems

Efforts have been made to harvest water through 16 check dams and 12 storage tanks. The toilets are tiled and maintained and cleaned twice in a day by housekeeping staff. They use recycle water for the toilets that is available 24/7. There are 2400 toilets across the campus which includes the academic buildings, residential complex and hostels. This makes it a healthy ratio of 1:4 toilets per student.

Solid and Liquid Waste Management

Solid waste management by the university is done by segregating waste into four different colour bins. Each of these bins is used for specific waste like bio waste, paper, plastic and Napkin waste. The segregated garbage is recycled, processed or given to agencies for safe disposal, including e-waste. Bio compost is made out of all the bio waste that comes from canteens and hostels. There are 607 Garbage bins in the campus with 5 per floor and 25 per building on an average. The cleaning staffs of the campus collect the waste two times a day. This includes e-waste. The University has 4 high-end Sewage Treatment Plants (STP) with approximate capacity of 8 lakh litre which recycle liquid waste. In addition to sand/charcoal, the STPs use state-of-the-art technologies such as UV filter and Effective microorganisms (EM to filter water.

Hostel Kitchen Facility

The kitchen at the campus is centralised and semi-automated. Rice and vegetable are steam cooked using boilers. This kitchen is equipped with all the modern cooking equipment like vegetable cutters, peelers, wet grinders, juicers and chappathi making machines. There are separate storage areas for dry and wet things as per FSSAI standards.

Campus Greenery

Nestled in the Western Ghats, the 450+ acre campus is has about 1.75 lakhs trees of 200+ different varieties. A variety of birds and butterflies can be seen, this bio diversity is visible in the rich flora and fauna including a medicinal garden. The University has planted been planting around 1000 trees annually for the past ten years with a 95% survival rate. Today, the total campus green cover is 728434 square metres.

Renewable Energy

The campus promotes solar energy and they have installed roof-top solar panels, energy-saving LED and CFL bulbs. As of today, the solar power installed is 216 KW. The University also has educational and research programs in green technologies, smart grid and renewable energy.

Unique Curricular Inputs

The Environment Science and Sustainability course is mandatory for all engineering and management students in the campus. AMRITA is the only Indian institution featured in Sustainability Literacy Test (SULITEST) of UN Global Compact's Principles for Responsible Management Education

(PRME) initiative. Students can also take a 3 credit experiential learning village program called Live-in-Labs. The students have to spend 10 to 15 days in a village to understand the problems faced by the village and design and implement environment-friendly and sustainable solutions for these villages as a part of this program.

Adopted Village: Ettimadai

The university has selected Ettimadai village, in Coimbatore District, Tamil Nadu for their Swachhta Awareness programs. The university has adopted this village where they have been conducting regular afforestation drives. The university has planted more than than 10,000 trees in and around the surrounding villages. The students and staff of the university organise regular awareness programmes and about 500 villagers and 100 families have been directly benefited by these awareness campaigns. These awareness programmes include cleanliness, hygiene, health, combating social evils and personal cleanliness.

The university has built a toilet complex with 6 public toilets for women of the village at a cost of over Rs. 10 lakhs. This toilet complex is also maintained by the University. As a result of these efforts, Ettimadai village is now ODF. AMRITA staff and students organize regular Amalabharatham clean-up drives in the village. 400 students took up the Swachhta Hi Seva 2018 drive in the Ettimadai village as well as Periyapudur, Chinnapudur and Ayyaswamy Koil areas on 15thSeptember, 2018. The university volunteers have also cleaned two Coimbatore town bus stands at Singanallur and Mettupalayam Road.




Outcomes

- AMRITA is the only Indian institution featured in Sustainability Literacy Test (SULITEST) of UN Global Compact's Principles for Responsible Management Education (PRME) initiative
- The university is promoting an experiential learning program in the village called Live-in Labs
- The campus promotes solar energy and they have installed roof-top solar panels, energy-saving LED and CFL bulbs
- The University has educational and research programs in green technologies, smart grid and renewable energy
- The total green cover in the campus is 728434 square metres
- The kitchen at the campus is centralised and semi-automated
- Solid waste management by the university is done by segregating and the segregated garbage is recycled, processed or given to agencies for safe disposal, including e-waste
- The university produces bio compost out of all the bio waste that comes from canteens and hostels
- The University has 4 high-end Sewage Treatment Plants (STP) with approximate capacity of 8 lakh litre which recycle liquid waste
- The hostels in the campus have a healthy ratio of 1:4 toilets per student

Assam Don Bosco University Assam

Assam Don Bosco University is a state private, non-profit, co-educational, Catholic research university located in Assam, India. The university was founded on March 29, 2008 by the Salesians of Don Bosco and executed by the Don Bosco Society, Azara, Guwahati. The university which is located in Guwahati, is Assam's first state university in the private sector. It has three campuses in Tapesia, Azara and Kharguli.

Student Strength	**2558**
Staff Strength	**230**

Residential Facilities

In the Tapesia campus of the university,there are 6 hostels which accommodate a total of 1038 students. The Azara campus has 3 hostels with 470 students and Kharguli Campus has 2 hostels with 61 students. There are 290 toilets, 254 showers and 58 urinals solely for hostel students in the campus. The hostels are provided with 24 x 7 clean running water and uninterrupted power supply. There are ample facilities for indoor and outdoor game facilities and free Wi-Fi connectivity. There are a total of 559 toilets in the university across the 33 buildings in the three campuses (inclusive of academic blocks and hostels).

Solid and Liquid Waste Management

The garbage is cleaned on a regular basis. There are 139 garbage clearance units solely for hostels and another 89 garbage clearance units for the academic blocks. The University has outsourced the disposal of kitchen-waste waste to an agency that manages an animal farm close to the campus, so that the waste becomes fodder. Most of the remaining waste is disposed at the official landfill of the city, and some of it is burnt at the incinerator of the University.

Hostel Kitchen Facilities

The hostel kitchen in the campus is well equipped with modern amenities like chimneys and a spacious dining hall. Special care is taken to maintain the hygiene in the kitchen by the workers as well as the cooks.

Campus Greenery

There are many shady and decorative trees which have been planted all over the campus. The campus has beautifully maintained lawns, with shelters for birds and bird-feeders. There is a 165 acres tea plantation, an orange grove of 1000 trees, 1000 agar trees and hundreds of mango and pomelo trees. The university has signed MOUs with 5 National Boards (Coffee, Rubber, Coconut, Cashewnut, Tea). These MOUs are on 4 hectares of land to demonstrate model plantation , seed and sapling production, extension work in the neighbouring villages, research on hybridization, mass multiplication and pest resistance. Two plantations (Rubber and Coconut) have already been established. The rest are under various stages of completion.

Innovative Usage of Technology

The university has taken up many initiatives and innovations in all the three campuses to reduce energy consumption and use alternative sources of energy. Highlights of the major initiatives are as follows:

- The University has installed a Roof-Top Solar Photo Volatic system of 160 Kwh each in the two campuses (Azara and Tapesia) totalling 320 Kwh generation capacity.
- The University has switched over to energy efficient LED lights.
- The University has entrusted the Departments of Electrical and Electronics Engineering of the School of Technology to conduct 'Energy Audits' for the campus for efficient power utilization.
- The university has built an academic block, imitating a German model architecture where underground air tunnels are connected to air flow ducts in the building. This helps to minimize the use of air-conditioners and saves power. This keeps the building cool from inside and thereby eliminates the need for air-conditioning. This model is expected to be replicated all through the campus if found to be beneficial.

Roof-Top Solar Photo Volatic system

Adopted Villages: Dimoria Development Block, Kamrup Metropolitan District, Assam

12 villages have been adopted by the university:

1. Jugdol village
2. Upper Tapesia village
3. Patarkuchi village
4. Medhikuchi village
5. Nam Tapesia village
6. Goriaghuli village
7. Nazirakhat village
8. Morangabari village
9. Kalitakuchi village
10. Jargoan village
11. Sagoligoan village and
12. Hatimora village.

Families Benefited: On an average there are 250 families in each village, with 4.5 members in a family. Hence the population covered is approximately 13,500 in about 3000 families.

Assam Don Bosco University has used a multi-pronged strategy to address issues of poverty, health, education, drinking water, cleanliness and gender disparity for bringing about Swacchata program. The university has cleaned and renovated 27 Anganwadi centres and built toilets. The cleaning of water tank in Hatimurah village was undertaken for enabling people to have access to clean water.

The university distributed indigenously designed solar-powered water-purifiers, having light-activated semiconducting nano materials that are capable of removing both chemical and biological contaminants from water. The university has sensitised over a 1000 children on health, hygiene, harmful effects of plastic-usage and sanitation issues in the community.

The university also conducted over 20 training programmes for women on menstrual hygiene, language skills, numerical skills, child development, parenting, health, rights, responsibilities and

government schemes in the past three years. The students of the university also performed street plays on Swachhata awareness by Students in the villages . They have also organised a drawing and poster making competition on Swachh Bharat was organised and a workshop on recycling through Arts and Crafts.




Outcomes

- The university has state of the art facilities in the campus
- The hostels are provided with 24 x 7 clean running water and uninterrupted power supply
- There are ample facilities for indoor and outdoor game facilities and free Wi-Fi connectivity
- The University has outsourced the disposal of kitchen-waste waste to an agency that manages an animal farm close to the campus, so that the waste becomes fodder
- The hostel kitchen in the campus is well equipped with modern amenities
- Special care is taken to maintain the hygiene in the kitchen by the workers as well as the cooks
- Many shady and decorative trees have been planted all over the campus
- The university has signed MOUs with 5 National Boards (Coffee, Rubber, Coconut, Cashewnut, Tea), to demonstrate model plantation, seed and sapling production, extension work in the neighbouring villages, research on hybridization, mass multiplication and pest resistance

- The University has installed a Roof-Top Solar Photo Volatic system of 160 Kwh each in the two campuses (Azara and Tapesia) totalling 320 Kwh generation capacity
- The University has switched over to energy efficient LED lights
- The University has entrusted the Departments of Electrical and Electronics Engineering of the School of Technology to conduct 'Energy Audits' for the campus for efficient power utilization.
- The university has built an academic block, imitating a German model architecture where underground air tunnels are connected to air flow ducts in the building. This helps to minimize the use of air-conditioners and saves power.
- The university has adopted 12 villages in the Dimoria Development Block
- The university has cleaned and renovated 27 Anganwadi centres and built toilets
- The cleaning of water tank in Hatimurah village was undertaken for enabling people to have access to clean water
- The university distributed indigenously designed solar-powered water-purifiers that are capable of removing both chemical and biological contaminants from water
- The university has sensitised over a 1000 children on health, hygiene, harmful effects of plastic-usage and sanitation issues in the community
- The university also conducted over 20 training programmes for women on menstrual hygiene, language skills, numerical skills, child development, parenting, health, rights, responsibilities and government schemes in the past three years
- Street plays on Swachhata awareness by students have been organised in the villages
- Drawing and poster making competition on Swachh Bharat was organised
- Workshop on recycling through Arts and Crafts were organised

Anand College of Education Agra Uttar Pradesh

Anand College of Education has come up with a view to impart quality teacher education in 2003. The institution have state of art student supporting facilities like computing facilities, library, hostels, transport, canteen etc. The total strength of and faculty is 156 and 15 respectively. Te staff are 32 in number.

Student Strength	**156**
Staff Strength	**15**

Residential Facilities

There are separate girls and boys hostels, one each in the campus. There are sufficient bathrooms with attached toilets. Some rooms are with attached toilets and some are common sharing in the ratio of 1:4. Toilets are of western and Indian style. A 24x7 water supply is provided on the campus. Drinking water supply is 24x7 from the water purification plant. Treated wastewater is used in toilets. Water is collected and stored in the college by the rain water harvesting system.

Hostel Kitchen Facility

Dining area of the hostel has a capacity of 100 students. Food is monitored for quality and hygiene by the cooking chef. The kitchen is provided with the modular system type of chimney.

Solid and Liquid Waste Management

Solid waste is managed through a MOU with the Gram Panchayat. Solid and liquid waste is treated by the sewage and the wastewater treatment plants respectively. In-house technology is used which is duly approved by State Government.

Campus Greenery

70% of college area is covered with greenery. Keetham Lake, Bear rescue center and Bird sanctuary are located nearby the college. Sprinklers are installed with underground pipeline to maintain the greenery and other areas of college. Specific varieties of plants that can grow in saline water are grown in the college campus.

Solar Power

Solar panels are installed on the building roof top that supply 80% of power to the college.

Adopted Schools Five neighboring schools were adopted that were supported by the college are -

1. Maa Sharda Uchhatar Vidhyalaya, Arsena ,Agra
2. Govt. Primary School ,Bhim nagar, Farah, Mathura
3. B.O.Public School, Sikandra, Agra
4. Dr.Moo!Chand Jain Memorial Public School, Sikandra, Agra
5. Smt.Leelawati Ucchatar Madhyamik Vidhyalaya, Achhnera

Children Benefited

An estimated 1500 students have benefitted by the efforts related to swachhta abhiyan.

Before the Intervention

Schools were not aware about the hygiene, toilet condition, greenery, water storage, power utilization etc.

After the Intervention

The facilities available in the schools were monitored by the staff and students of the college. Awareness was developed through the campaign in the schools and nearby places. Guidance was given to them on treatment of waste material and wastage in a proper way. Bins were placed in the schools. Development of Greenery was promoted by providing plants. Schedule was given for timely cleaning of toilets and proper management. Guidance was also given on health and hygiene to make them healthy and fit.

Outcomes

- Separate hostels with modern amenities for girls and boys
- Water storage in rainwater harvesting pits
- Solid and liquid waste management by in-house built treatment plant
- Clean and hygienic hostel kitchen with modern facilities
- Installation of Sprinklers for maintenance of greenery
- Generation of power from rooftop solar panels
- Swachh Bharat Abhiyan benefitted the rural villagers

B. S. Abdur Rahman Crescent Institute of Science and Technology Chennai Tamil Nadu

B.S. Abdur Rahman Crescent Engineering College, which has now been upgraded as B.S Abdur Rahman Crescent Institute of Science & Technology Deemed to be University, is an institution acclaimed throughout India for its quality in teaching and research. Being one of the largest engineering institutions in India, it lays emphasis on innovative research, investment in high-quality facilities and first-rate infrastructure. By making use of the latest technologies and quality teaching, the college is able to offer a wide choice of interdisciplinary degrees in engineering which has enabled students to gain accolades in the global level. It is one of the few institutions with all the UG and PG programs approved by AICTE and accredited by the National Board of Accreditation. This has been upgraded to university status with a view to keep academic in pace with development in industry

Residential Facility

There are separate hostels for girls and boys. The boy's hostel complex with six multi-storied buildings has 47 air conditioned rooms that can accommodate 1712 boys. The girl's hostel complex with three multi-storeyed blocks can accommodate 500 girls. The hostel complex for both boys and girls comprises of more than 1000 toilets with modern amenities. Incinerator machines are deployed in all the ladies hostel toilets and provision of a medical centre for women. Open well

water and outsourced water facilities are available. The water is treated in the reverse osmosis plant enabling the drinking water facility to the hostel.

Solid and Liquid Waste Management

At the campus the waste segregation at source and quantification of the various categories of solid waste is managed efficiently both through in-house technology and through collaborative Japanese technology, with the support of M/s. Kankyo Technologies. The solid waste is also converted to manure in the composting unit and the manure is used for gardening purpose. The food waste is also used to generate bio-gas and the same is used in the ladies hostel kitchen.

The liquid wastes are collected and treated at two sewage treatment plants, whose capacity is 500KLD. The treated water is used for gardening and flushing in the toilet.

Modern Kitchen Facilities

The kitchen is fitted with latest gadgets including steam rice boiler, automatic steaming machine, high suction chimney and exhaust fans and modern steam-based dish-washer units. The dining hall is hygienic and well-managed and also has a cold storage for perishable items. Bio-gas plants supply the cooking gas.








Campus Greenery

More than 30% of the campus is covered by green coverage and is the home of several flora and fauna and some of them are unique species. Solar water pump and sprinklers are used for gardening. All the buildings have rain water harvesting facility.

Solar Power

A roof top solar plant with a capacity of 55o KW power has been installed. Solar water and solar street lights contribute to more than 50% of the sanctioned energy demand of the institute.

Adopted Villages: The six villages adopted by the institute for quality enhancement.

1. Keerapakkam
2. Karasanagal
3. Vembedu
4. Manimangalam
5. Arungal and
6. Kattur villages in Kancheepuram district of Tamil Nadu India

Intervention Undertaken in the Area:

BSS Institute has covered more than 100 families in order to improve the quality of their life. Some of the major projects undertaken by the institute include laying of bitumen road, cleaning of lakes, computer literacy, donation of computers to the adopted school and establishment of internet service center for popularization and enrolment of various schemes.

Awareness was created for E-waste management and declaration of no plastic zone. Several measures have been initiated such as green building certification, recycling of papers through ITC and Zero discharge of waste for promoting environment consciousness and for sustainability. The college has also adopted and supported nearby villages and even maintains a differently-disabled friendly campus with the support of Panchayats and Government organizations.








Outcomes

- Hostel accommodation is separate for boys and girls
- Installation of reverse osmosis plant enabling the drinking water facility to the hostel
- Modern kitchen is fitted with latest gadgets including steam rice boiler, automatic steaming machine, high suction chimney and exhaust fans and modern steam-based dish-washer units
- Installation of solar water pump and sprinklers for gardening
- Roof top solar power plant with a capacity of 550KW supplies power to the solar water heater and solar street lights.
- Initiation of several measures for promoting environment consciousness and sustainability, such as green building certification, recycling of papers through ITC and zero discharge of waste.

The Bhopal School of Social Sciences (BSSS)
Habibganj Bhopal - Madhya Pradesh

The Bhopal School of Social Sciences is an autonomous college re-accredited by NAAC with A Grade (CGPA- 3.27). The college offers numerous under-graduate and post-graduate programme in various disciplines. Situated in the heart of Bhopal city, the college has an eco-friendly campus with a scenic beauty that captures the mind of all. The college has well-equipped smart class rooms, conference halls and research labs. etc, which are well-maintained to provide quality inputs to the students.

Student Strength	**4449**
Staff Strength	**100**



Residential Facilities

The college has hostel facilities for boys and girls. Twenty-four hours filtered water supply is provided for drinking and other purposes. Toilets are maintained hygienically. Adequate number of washing and bathing facilities, Water Closets (WCs) and Wash Hand Basins (WHB) are available for the hostellers. All the rooms are provided with water coolers to mitigate the extreme temperatures during summer.

Hostel Kitchen Facility

The key features of hostel at BSSS are well maintained kitchen with modern amenities catering to the daily requirement of the students. Chimney and other modern utilities provide a smoke free ambience to the hostel.

Solid and Liquid Waste Management

A bio gas plant and vermin-composting plant is installed in the campus for solid waste management. Liquid wastes are taken care of by Bhopal Municipal Corporation (BMC).

Solar Power

The institution has installed solar panels covering all the important spots in the campus.

Campus Greenery

The college has lush green campus spread over twenty acres and has flora and fauna of varied nature including a herbal garden. Well maintained gardens add beauty to the campus.

Adopted Villages: The BSSS college has selected

1. Imalikheda
2. Khamkheda
3. Sohankheda
4. Lotiya Jamunchapari and
5. Dehariya Mukati villages from Sehore District of Madhya Pradesh. These adopted villages fall under Icchawar and Sehore blocks.

The BSSS team has organized several awareness programmes such as street plays, community meetings and training classes in these selected villages. Student coordinators formed the 'Farmers Club' and motivated the farmers for initiating organic farming. They had meetings with Krishi Vigyan Kendra and ATMA, a Non-Governmental Organization working in the field of agriculture for organizing training to the student coordinators of the 'Farmers Club'. The Research Cell of BSSS sanctioned two research projects to the students to undertake a study on WASH and Livelihood in the villages. A weeklong rural camp was conducted for students to an get an understanding about

the rural settings and know more about the rural life. Students have organised talks to create awareness on Child Rights and Child Sexual Abuse in the Government schools during their concurrent field work. The Social Outreach Unit of BSSS has scheduled different thematic programmes in these selected villages to bridge the gap on lack of awareness. BSSS has created a strong presence of Social Outreach Unit by its activities and actions within a year.

Outcomes

- The lush greenery in the campus comprises of varied flora and fauna and a well-maintained garden
- The facilities include potable water connections for supply of drinking water
- Toilets are maintained hygienically and provided with a proper drainage system
- Installation of bio-gas plant and vermin-composting machine for solid waste management
- Several awareness programmes organized such as street plays, community meetings and training classes
- The Social Outreach Unit has scheduled different thematic programmes in the selected villages to bridge the gap on lack of awareness

Cauvery B.Ed College Bengaluru Karnataka

Cauvery B.Ed. College is situated in Bangalore in Karnataka state of India. Established in 2004, it is accredited from NAAC and it is affiliated to Bangalore University. CBC, Bangalore offers 1 courses across 1 streams namely Education and across 1 degrees like B.Ed.Hostel facility is not available for its students. Additional campus facilities such as Boys Hostel, Canteen, Computer Lab, Fest, Mess, Library, Medical Facilities, Cls. Room, Sports, Grounds are also there.

Student Strength	**100**
Faculty Strength	**13**

Residential Facility

The College has separate hostels for boys and girls within a close vicinity of the college campus. The Hostels are equipped with adequate number of comfortable sleeping beds. The hostels are provided with modern amenities, W/C toilets and 24 hours running water facilities. Potable drinking water is available for consumption. Energy generated by solar panels is used for lighting purposes.

Solid and Liquid Waste Management

The waste generated is minimal in the hostel as well as the campus premises. The college believe in reusing and recycling all materials. Any waste which gets generated is segregated at source. There are separate bins to dispose dry and wet waste all around the campus.

Hostel Kitchen Facility

The hostel kitchen procures local produce from the farmer's market to serve a well-balanced, fresh, delicious meal to the boarders. The kitchen is equipped with LPG stoves and electric chimneys in the cooking bay. The dining hall is well ventilated and has adequate seating facilities.

Campus Greenery

June 5th of every year is celebrated as World Environment Day at the College campus. Every year since initiation, the students and staff have planted a number of trees in and around our campus. The Garden has various ornamental and flowering plants and is well maintained by the gardeners. The college engages in an awareness program twice every year.

Solar Power

The College is equipped with solar panels. The college is not only self sufficient in power generation for their needs but also supply power to BESCOM.

Neighbourhoods Adopted

Dr. Shivaramakaranth nagar 2nd stage MCECHS Layout, Jakkur Post, Bengaluru

Benefited Families - 78

Outcomes:

- Under the Swachh Bharat Initiative CAUVERY B.Ed., COLLEGE Students and staff made regular visits to the aforementioned neighbourhood to spread awareness about community cleanliness and hygiene. The college has formed teams of students and teachers to scout the area and collect dry garbage. This garbage is disposed off responsibly. The residents were given awareness about proper waste disposal and management. They were instructed on how to dispose of bio waste like animal carcasses, used syringes as well as broken glass pieces. The working conditions of Pourakarmikas (SAFAI KARMACHARIS) were also highlighted. The residents were also educated about the need to show concern about maintaining healthy working conditions for them.
- The residents of the layout and were encouraged to plant a number of trees in and around the neighbourhood.
- After the intervention the residents of the layout have pledged their allegiance towards segregation of waste, responsible disposal and reduction of single use plastic items. They have agreed to take the charge of maintaining the trees that were planted in their area.

Centurion University of Technology and Management Gajapati Odisha

The Centurion University of Technology and Management was established as a State Private University, in 2010, by an Act of the Orissa Legislative Assembly. The University currently includes a School of Management, School of Technology and School of Vocational Education.

Student Strength	**1773**
Faculty Strength	**181**

Residential Facilities

The hostels are fully-furnished and are also provided with a 24 X 7 CCTV coverage, security surveillance and power backup which ensure safety to the students. Apart from this the other amenities like Wi-Fi, fully equipped gym, hall for indoor games and study room ensures utmost comfort for the students. All the toilets have been designed as water-saving toilets to reduce flush water and the wastewater is treated at the sewerage system.

Nearly 770 RO water purifiers have been installed to provide safe drinking water to the students and for domestic purposes for 24 hours.

Solid and Liquid Waste Management

The college uses different coloured garbage bins to segregate the wastes. The waste is collected twice a day and recycled by the in-house recycling centre. Vegetable and food waste and dry leaves are converted to fertilizer by Vermi-composting. 100% sewage treatment is done by the in-house sewage treatment plant.

Hostel Kitchen Facilities

The hostel kitchen is managed by well-known caterers of the state. The cooking area is cleaned with disinfectant floor cleaners. The chimney is cleaned on a regular basis. The students and staff eat hygienically produced nutritious and tasty meals.

Campus Greenery

The college uses waste water for the irrigation of gardens and agricultural fields. Drip irrigation and rainwater-harvesting techniques are utilized to keep the campus green.

Solar Power Panels

Adopted Villages: The institute has adopted 7 villages:

1. Patikota
2. Barlanda
3. Katalakaitha
4. Jaipur K
5. Sitapur
6. Kantragada
7. Uppaladaunder in Gajapati District

Families Benefited: Nearly, 95 families are covered by the efforts.30 families of Patikota were assessed by the college. Approximately 62% of respondents were males while 38% were females. Most of the farmers are marginal farmers. In most of the houses the sanitary habits were very poor with no facility of toilets, dustbin and no voluntary organizations as NGO's or Self Help Groups.

Impact after Survey and Action

Villagers believe that public toilets in their village have improved since the beginning of the Swachhta drive. The Swachh Bharat initiative has been effective in creating awareness amongst children about cleanliness and civic sense. Villagers have become more responsive to complaints on garbage collection, waste disposal and street cleaning. However, the biggest area requiring immediate focus according to the villagers is the District Administration. According to the villagers the administration are not working in parallel to Swachh Bharat and are largely disengaged from the mission. As per the people lack of processes and systems, corruption, delays, and lack of accountability are issues which if not effectively addressed will continue to be a bottleneck in the long-term success of Swachhta Bharat.

Outcomes

- Hostels are fully-furnished and are also provided with a 24 X 7 CCTV coverage, security surveillance and power backup which ensures safety
- Toilets designed as water-saving toilets to reduce flush water and the wastewaters treated at the sewerage system
- Installation of Reverse Osmosis water purifiers to provide safe drinking water
- Hygienic maintenance of hostel kitchen
- Sold waste recycled by the in-house recycling centre
- Swachh Bharat has been effective in imparting values like cleanliness and civic sense
- 95 families have benefited from the initiatives taken by the college
- Villagers have become more responsive to complaints on garbage collection, waste disposal and street cleaning

Chandigarh University Mohali Punjab

Chandigarh is accredited by NAAC with 'A+' Grade and recognized by University Grants Commission (UGC), All India Council for Technical Education (AICTE) and many other government recognized statutory bodies, Chandigarh University is an institution that stands testimony to the Institution Social Responsibility. Since inception the university has been taking voluntary actions in the creation of a culture of Social Responsibility in society through a range of activities that address the welfare of society. Developing holistic personality and inducing students with leadership qualities along with the spirit of nationalism and cooperation is also an integral part of this program. It also teaches yoga and meditation that develop qualities like unity, brotherhood, and sportsmanship along with better health.

Student Strength	20,000
Faculty Strength	1500

Residential Facilities

Chandigarh University has 14 hostels for boys and 06 for girls with all modern facilities and attached mess which serves fresh and hygienic food. Apart from this, the University provides quality sanitary napkins for girl students through all their canteen, shops and Sanitary Napkin Machines which are installed in the girl's hostels. The maintenance of water supply and sewage treatment equipments are undertaken as per the standard maintenance schedule.

Hostel Kitchen Facility

The boys and girls hostels have modern and well-equipped kitchens and dining halls where food is cooked and served in clean and hygienic conditions. The college hires professional pest control services to ensure pet – free surroundings. Purified cold and warm water during winters are provided to the students. The weekly menu is well - planned in consultation with the Students' Mess Committee to provide variety, nutritious and wholesome food to the students. The university provides special meals on festive days. All hostel blocks are equipped with solar water heaters which provide warm water during winter to the hostels.

Solid Waste Management

The solid waste is categorized into non-biodegradable and biodegradable waste. The non-biodegradable waste is separated into recyclable and non-recyclable waste. The recyclable waste is

sent to designate vendors on a regular basis. Non-recyclable waste is disposed of as junk through open bidding. No waste is allowed to be accumulated on the campus. Biodegradable waste is collected hygienically and is sent to specific set up which is meant for their degradation, decomposition of oxygen rich medium resulting in the formation of eco-friendly manure which is used for horticulture purposes in the campus.

Liquid Waste Management

The University generates approximately 1.87 MLD of sewerage waste daily. To manage this waste, the university has established four STPs out of which two has a 1.5 MLD capacity and two STP plants of 400 KLD capacity. The treated water from these STPs is used for dual plumbing for hostel flushes and irrigation in the university. The hazardous waste of lubricants from the diesel Genset is collected into fire-safe containers and is disposed of through the designated vendors. The University adheres to a strict protocol of liquid waste disposal in its laboratories. Any glassware used in the laboratory is rinsed with minimum water and placed in the liquid waste container. The liquid waste is segregated into organic and inorganic waste. Inorganic waste such as concentrated acidic or alkaline solutions is neutralized before disposal. Sodium bicarbonate or Calcium oxide (lime) is used for the neutralization process so that the neutralized liquid contains no harmful substance and pH is maintained.

Adopted Villages: Chandigarh University has adopted six nearby villages namely,

1. Gharuan
2. Mamupur
3. Mankheri
4. Rurkie Puktha
5. Bawa Simbal and
6. Majara

Nearly, 12500 students participated in the extension activities every year. Special programs related to health and hygiene was conducted in these villages by the University. The activities conducted under this program include Information education activities, communication, segregation of waste materials and support in toilet construction.

Outcomes

- The hostel kitchen is fitted with modern facilities and attached mess which serves fresh and hygienic food
- Installation of Sanitary Napkin Machines for provision of quality sanitary napkins for girl students
- Formation of eco-friendly manure which is used for horticulture purposes in the campus
- The solid waste is categorized into non-biodegradable and biodegradable waste
- Inclusion of activities such as information education activities, communication, segregation of waste materials and support in toilet construction

Chitkara University Himachal Pradesh

Chitkara University, Himachal Pradesh is a UGC compliant NAAC accredited State Private University established by the Legislature of Himachal Pradesh in 2008.The University offers state-of-the-art infrastructure and ambience for a learning environment essential for world-class research and all-round development of students.

Chitkara University has been ranked among the top ten universities across India in Swachhta ranking for Higher Educational Institutions in 2017 and 2018 consecutively, by Ministry of Human Resource Department, Government of India. It has also been ranked first in the Environment Leadership Award 2017 and 2018 consecutively, by Government of Himachal Pradesh, for taking initiatives on sustainable development and solving the problems of society through its proactive research contribution. Chitkara University is the first educational institute in India awarded with the 'DL Shah Quality Awards – 2018" for its 'Zero discharge environmental friendly educational campus'.

Student Strength	**2520**
Faculty Strength	**470**

Residential Facilities

The University has 5 hostels and 2 guest houses with occupancy of 1280 students and staff. It provides all amenities like round-the-clock supply of safe drinking water, uninterrupted power and provision of hot water through solar panels, lift facility and Wi-Fi network etc. It has a dedicated housekeeping and mantainence team to maintain these facilities. There are adequate number of toilets equipped with latest fittings and modern anti-skid flooring and exhaust fans. Student toilet ratio in residential area is 6:1 for male, 2:1 for female and 10:1 in the common academic area. Special provisions have been made for persons with disability. Sanitation and hygeine is ensured by proper mantainence and cleanliness of toilets. The University has a mechanized laundry system which saves 70% of the water.

Solid and Liquid Waste Management

The solid waste generated is mostly papers, answer sheets and waste from kitchen and toilets. The waste paper recycling plant converts waste paper into new papers, file covers, sheets, note pads etc. Dry and wet waste is segregated in separate bins and the garbage is cleared twice a day. Kitchen waste is processed in a vermin compost plant. Weeds, leaves and other garden waste are deposited in organic pits for generation of compost. Liquid waste generated from washrooms, kitchen, laundry etc. are treated in the Sewage Treatment Plant (STP) installed in the campus. The treated wastewater from the STP is reused through double plumbing technique for horticulture purpose. The residual water from vermin composting plant is collected in organic pit and used as a pesticide. Rain water harvesting pits are used for conservation of rain water. Untreated wastes are collected in the garbage disposal bins. Biomedical waste and lubricating oil discharged from generator sets are collected by the government approved vendors.

Hostel Kitchen Facility

The University has automated and modern kitchens with chimney and multiple exhausts, well-maintained servers and cold storage rooms. Kitchen staff is well-groomed and appropriately dressed. LPG is used as the cooking medium and provided with mechanized food preparation units. There is provision of round-the-clock supply of safe drinking water. There are regular food quality checks by the mess committee members. Dedicated staff maintains the hygiene and cleanliness of the kitchen and dining areas.

Campus Greenery

The University has a team of horticulturist and gardeners that maintain 70% greenery and landscape of the campus. Over 3500 different types of trees have been planted in and around the campus area. An In-house nursery caters to the need of tree plantation programs. Hydroponic farming techniques adopted by the university has a production capacity of 18 -20 kgs. of vegetables per day. Sprinklers are used for watering the plants and wastewater from the sewage treatment plant is used in horticulture. Saplings are protected by the use of organic pesticides and in-house prepared compost. Plant markers indicating nomenclature and species information are displayed at the designated spots. Bee keeping on the campus induced pollination of many flowering plants.

Solar Power

The university has an in-house solar power plant with 320 KW capacities. In addition to this, solar water heaters with a capacity of about 30,000 liters hot water per day are installed across the campus and in hostels. Solar photovoltaic street lights are also installed across the campus.

Other Innovative Usage

Industry sludge from tooth paste is used for construction of bio-roads. Bricks are manufactured from paper industry sludge. A new model of bio-texture green home is constructed using waste material like tyres, bottles etc. Similarly, a green passage is constructed using plastic pet bottles. The Poly Lactic Acid (PLA) production process is used to manufacture biodegradable plastic using waste potatoes.

Adopted Villages:

The students are actively involved in community services and institutional social responsibility under Swachhta Action Plan 2019. They have adopted 5 villages for namely,

1. Kot Beja
2. Gunnai
3. Kalranwali
4. Sheran in the district of Solan, Himachal Pradesh and
5. Nanakpur in the district of Panchkula, Haryana

Benefited People/ Families: 16,000

The university provides free education to children and opportunities for self-employment to adults of the adopted villages. A number of activities are organized on regular basis within the campus and in the nearby areas to contribute to a clean and healthy environment. The University has helped in eradicating manual scavenging and open defecation free by converting the toilets into pour flush toilets. The water quality was checked for cleanliness and beautification of water bodies has been enhanced in the nearby villages. The university has created public awareness by conducting programmes on sanitation and public health that have brought about visible behavioral changes in the people. Municipal solid wastes are disposed by the scientific process of reuse and recycle. There is an increase in employment generation through capacity building programmes for the villagers. Research projects were promoted and swachhta initiatives implemented to find appropriate solutions to the community problems.

Outcomes

- Provision of amenities like round-the-clock supply of safe drinking water, uninterrupted power and provision of hot water through solar panels
- The University has a mechanized laundry system which saves 70% of the water
- The waste paper recycling plant converts waste paper into new papers, file covers, sheets, note pads etc.
- Rain water harvesting pits are used for conservation of rain water
- LPG is used as the cooking medium and all the messes are provided with mechanized food preparation units
- There is provision of round-the-clock supply of safe drinking water
- There are regular food quality checks by the mess committee members
- The University has a team of horticulturist and gardeners that maintain 70% greenery and landscape of the campus
- Over 3500 different types of trees have been planted in and around the campus area
- Hydroponic farming techniques adopted by the university has a production capacity of 18 - 20 kgs. of vegetables per day
- solar water heaters with a capacity of about 30,000 liters hot water per day are installed across the campus and in hostels
- Industry sludge from tooth paste is used for construction of bio-roads
- Bricks are manufactured from paper industry sludge
- A new model of bio-texture green home is constructed using waste material like tyres, bottles etc. The Poly Lactic Acid (PLA) production process is used to manufacture biodegradable plastic using waste potatoes
- The university provides free education to children and opportunities for self-employment to adults of the adopted villages
- The University has helped in eradicating manual scavenging and open defecation free by converting the toilets into pour flush toilets.
- The university has created public awareness by conducting programmes on sanitation and public health

Desh Bhagat University Fatehgarh Sahib Punjab

Desh Bhagat University, Mandi Gobindgarh came into existence under Punjab Govt's Desh Bhagat University Act. The various courses taught in the university include Agriculture Sciences, Airlines, Animation, Applied Sciences, Art and Craft and Fashion Technology, Ayurveda, Commerce, Computer Sciences, Education, Engineering, Hospitality and Tourism, Hotel Management, Languages, Law, Management, Media, Nursing, Performing arts, Physical Education, Social Sciences.

Student Strength	**4028**
Faculty Strength	**474**

Residential Facilities

There are four hostels for boys and three for girls. Water from sewage treatment plants is reused in toilets. The campus is provided with sensor based smart automatic water tanks and sensor based smart taps for water conservation in wash rooms. Reverse osmosis waste water is reused for cleaning the utensils and watering the plants. Water conservation is done through water bidget.

Hostel Kitchen Facilities

The hostel kitchen is hi-tech with hygienic cooking. Automatic machines are used for mixing atta. The kitchen is fitted with exhaust fans and a chimney to prevent indoor air pollution, Dalerry for making hot food and cold Bengery for protecting dairy products.

Solid and Liquid Waste Management

Kitchen wastes of all hostels and hotels are collected by the Piggery plant. DBU has tied up with M/s Rainbow Environments Private Ltd. Mohali, for medical waste treatment. Green wastes are dumped into the pits to form manure and compost, which is used in the university garden nursery and agricultural fields. For e-waste treatment, the university has tied- up with Ramky Enviro Engineers Limited, Hyderabad. DBU has been declared as "No Plastic Campus". Colour coded dustbins are used for collection of different types of wastes. Liquid wastes are treated by the sewerage treatment plants in the campus. Each academic block of the university has rain water harvesting tanks for the collection of roof rain water.

Campus Greenery

The green cover is 44% in the university area. Drip irrigation and sprinklers are used for watering the greenery. A green audit is done on a regular basis. There are nearly 1026 types of plants, including medicinal, ornamental and air purifier plants and different varieties of shrubs in the campus. Some of the common plant species are the Neem, Arjun, DEk, Silver oak, Sudarshan, Pagoda, red head, Date palm, Fish tell palm, Fox tell palm, Cycas, Temple tree, Pin wheel flower, Guava, Popular, Safeda, Pulai, Butter fly tree, Kadam, Gulmohar, Ficus, Hibiscus, Ashoka, Chukrasia, Arabian jasmine, Mango, Amla, Jamun, Rangoon creeper, Bottle brush, Indian banyan, Bamboo, Mulberry, Areca palm, Peepal, Rose, Bougainvillea, Bush palmetto, Bengal banyan, American agave, Oleander, Peregrina, Norfolk island pine, Variegated croton, evergreen oak etc.

Solar Power

The solar water heating systems are used in the campus hostels for boys and girls. Solar cookers are used in the kitchen and solar lights are installed in the campus. Solar system is used to charge mobiles, cutting grass and solar seeder.


Adopted Villages:
The villages adopted were

1. Saunti
2. Salni
3. Khumnna
4. Jalalpur and
5. Khaniyan

Benefited People/ Families: Approximately 15000 to 20000 people

Interventions Undertaken

Under the flagship of Swachh Bharat Abhiyan, The following activities were undertaken in the adopted villages where the primary focus was on cleanliness, hygiene and development of the villagers. Hygiene and medical awareness camps were organized in these villages from time to time. The doctors of the medical department helped the villagers to adopt techniques to prevent diseases. The career / skill counselling awareness programmes conducted by the Innovation and Entrepreneur Development Cell of the University (IEDC) Livelihood business incubator have created awareness amongst the youth and school going kids. The school going rate has increased due to counselling.


Hygiene Awareness Campaign

Teacher's Day with a pledge on "Say No to Plastic"

Outcomes

- Provision of sensor based smart automatic water tanks and sensor based smart taps for water conservation in wash rooms
- Reverse osmosis waste water reused for cleaning the utensils and watering the plants
- Kitchen fitted with exhaust fans and chimney to prevent indoor air pollution
- Construction of rain water harvesting tanks for the collection of roof rain water
- Colour coded dustbins used for collection of different types of wastes
- Drip irrigation and sprinklers used for watering the greenery
- Solar cookers used in the kitchen and solar lights installed in the campus
- Swachh Bharat Abhiyan activities' primary focus was on cleanliness, hygiene and development of the villagers
- Increase in attendance at school

Dev Sanskriti Vishwavidyalaya Haridwar Uttarakhand

Dev Sanskriti Vishwa Vidyalaya (D.S.V.V.) is a progressive institute of higher learning, education and research. It was created through the vision of the patron founder Pt. Shriram Sharma Acharya ji, who had a vision to establish a University dedicated to the preservation and propagation of the Indian Culture by combining the percepts of practical knowledge (shiksha) and spiritual education (vidya).

Residential Facilities

There are 6 hostels in the campus. Out of these, 3 are for boys, 2 for girls and 1 is an international hostel. All the hostels have Wi-Fi internet connection, water coolers and purifiers, 24 hours water supply, hot water facilities during winter, cooking facilities, 366 toilets with modern facilities and launderette. There are separate hostel facilities for 60 working women too. The university has employed skilled labour to keep the campus and the buildings clean. There is Eureka forbs single disk scrubber machine to clean all floors. Dry and wet vacuum cleaner, backpack vacuum cleaner, manual sweeper machine and jet machine are used to remove stain and toilets. The NSS, NCC and Scouts division students contribute in the cleanliness of the campus from time to time.

Solid and Liquid Waste Management

The university has an effective system of solid waste management, where all the solid waste of campus is processed into organic manure,. This manure is used in campus gardens and fields. The university recycles waste paper and clothes into handmade papers, which are further used as office files, paper bags and gift packs. The entire campus is polythene free.

Kitchen Facilities

There are 3 Dining Halls for boys, girls and staffs respectively, with a total capacity of 1470 persons. Special care is taken of hygiene and nutrition. Food is prepared with gas cylinders, steam boilers and filtered water.

Campus Greenery

The campus is situated in the lap of Himalayas and with the Holy Ganges close by. The natural setting provides a 60 % green cover. The campus has a variety of tree shrubs, herbs, climbing plants and green lawns. The sprinkler system is used to irrigate about 60% of the land, 10% is irrigated using drip irrigation and modernized gardening practices. There are organic fields and mango orchard in the campus.

Solar Power

The university has Roof Top Solar Power Plant with capacity of 293.1 KWp in the campus. This solar power plant is designed in accordance with the electrical Standards International Electric Code(IEC) and other International Standards.

Health Park

The university has a health park called *SmritiUpwan.* A herbal garden, acupressure path and natural food products and juices are the special attraction of this park.

Adopted Village:

1. Rishikesh
2. Madhopur
3. Bhaniyawala
4. Bhogpur
5. Itharna
6. Madhasi
7. Mankee
8. Chechri-garhwai
9. Kaalvan
10. Doiwala

The students of the department of Theology, visit adjacent villages of Uttarakhand state in Rishikesh tehsil, Dehradun district every Sunday. The students as well the volunteers of NCC, NSS & Scouts have covered about 30 villages and conducted cleanliness, health awareness, tree plantation and drug de-addiction campaigns. About 1000 villagers have benefitted from these activities.

Outcomes

- All the hostels in the campus are well equipped with all the modern facilities
- There are separate hostel facilities for 60 working women too
- The university has an effective system of solid waste management, where all the solid waste of campus is processed into organic manure
- The university recycles waste paper and clothes into handmade papers, which are further used as office files, paper bags and gift packs
- The entire campus is polythene free
- The NSS, NCC and Scouts division students contribute in the cleanliness of the campus from time to time
- About 1000 villagers in around 30 villages have benefitted from the cleanliness, health awareness, tree plantation and drug de-addiction campaigns
- A sprinkler system is used to irrigate about 60% of the land, 10% is irrigated using drip irrigation and modernized gardening practices
- There are organic fields and mango orchard in the campus
- The university has Roof Top Solar Power Plant with capacity of 293.1 KWp in the campus

Dr. D. Y. Patil Vidyapeeth (Deemed to be University)
Pune Maharashtra

Dr. D. Y. Patil Vidyapeeth, Pune under its umbrella has a composite of colleges comprising of medical dental, ayurved, homoeopathy, nursing and physiotherapy colleges including the institutes of optometry, biotechnology and management.

Student Strength	**6111**
Faculty Strength	**815**

Residential Facilities

Dr. D. Y. Patil Vidyapeeth consists of 8 hostels for the students, including boys and girls. There are 749 modernized and 137 common toilets. Exhaust fans and air vents are present in all the toilets. Cleaning is done four times in a day to ensure high level of hygiene.

24 hours drinking water is supplied to the college and the hostels in the campus premises. The main water
supply is provided by Pimpri Chinchwad Municipal Corporation. Adequate water supply in the campus is ensured by the two water purifier systems installed in the main campus with a capacity of 50 thousand ltr/hr and another at Tathawade campus with capacity of 6.24 ltr/ hr. respectively.

Water treatment plant

Sewage treatment plant

Solid and Liquid Waste Management

The solid and liquid waste management at all the constituent colleges of Dr. D. Y. Patil Vidyapeeth, Pune is maintained strictly as per the infection control committee guidelines. The bio-medical wastes are disposed according to the coded container as indicated in the manual for biomedical waste management. Types of containers used are red, yellow, white and blue etc.

Colour Category	Type of Container	Type of Waste
Red	Non-chlorinated Plastic bags or containers	Contaminated waste (recyclable), tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes (without needles) and gloves
Yellow	Non-	Human anatomical waste,

	chlorinated Plastic bags, separate collection system leading to effluent treatment system.	animal anatomical waste expired or disorders medicines chemical waste micro, bio other chemical liquid waste	**Biomedical Waste Collection Centre**
White	(Translucent) Puncture, leak tamper proof, container	Waste sharps including metals	
Blue	Cardboard boxes	Glass ware	

Paasco is a common service provider for bio-medical waste. Transportation of bio-medical waste from the Vidyapeeth campus to the temporary collection storage area is done on a daily basis which is authorized by the Pimpri Chinchwad Municipal Corporation. Solid waste processing is done by the modern technology of vermi composting. A liquid waste- effluent treatment plant has been installed at the college campus.

Hostel Kitchen Facilities

The campus has modern mechanized kitchens fitted with a chimney. The air-conditioned dining halls are ventilated with adequate space and are well-furnished. Kitchen and surrounding areas are clean and hygienic.

kitchen service area

Dinning Hall

kitchen preparation area

Campus Greenery

Dr. D. Y. Patil Vidyapeeth's campus is spread over 42.5 acres with more than 7,375 trees. There are approximately 450 species of rare medicinal plants in the ayurvedic herbal garden. There are various types of plants and trees like Ficus, Bogainvilla, Rose, Hibiscus, Spathiphyllum, Rain lily,Spider lily, Tecoma, Pingpong, Pink plumeria, Areca palms, Poinsettia, Garlic Creeper, Pudika chafa, Golden palms, Fox tail palms, coconut trees, bottle brush, Bamboo, Golden Bamboo, Neem, Gulmohar etc. Good quality sprinklers and drippers keep the gardens lush green throughout the year. Over all 37 % of the total campus area is covered by greenery. Adequate dedicated staff manages and maintain the campus greenery.

Solar Power

The university has installed solar panels to generate electricity that is utilized by the institute. Total installation is 1.776 Mega watt which generate electricity of 7104 KW daily resulting in the saving of rupees 92360 per day.

Adopted Villages

The Vidyapeeth has adopted the following villages-

1. Solu village, Taluka- Khed
2. Jambe village ,Taluka Mulshi, Alandi (Mukatainagar)
3. Hotale village, Taluka Khed and
4. Markal village, Taluka- Khed in Pune district

Benefited People/Families: 9223, The constituent colleges / institutes are providing medical facilities to local villagers and other health awareness programmes have been conducted along with Swachhata Abhiyan activities.

Type of Intervention Undertaken

The following interventions were undertaken in the adopted villages: Swachhata Abhiyan activities with focus on ban on single use plastic. Villagers decided not to use plastic in their daily activities and took an oath about not using plastic. Villagers decided to stop open defecation and build toilets. 100% open defecation free by campaign and street plays and posters. The university implemented various health activities like safe water for good health. They conducted awareness program for cleanliness and environment conservation. Awareness programs were organized on River cleaning and conservation of water by poster exhibits and rally. Civilians with help of volunteers took part in tree plantation activity. The university sprayed insecticide to control mosquitoes. Rallies were organized to create awareness programme on general hygiene, sanitation and proper disposal of waste and to orient importance of menstrual hygiene.

Shachhata Abhiyan at Jambe Village

Post intervention Plastic bag ban program

Post intervention Plastic bag ban program

Swachhata hi Seva campaign

Awareness about control of water Pollution

Jambe Village – Swachhta Abhiyan

Tree Plantation Program

Awareness rally for Clean Water

Awareness rally for Open Defecation freex

Women's health check up camp

Environment conservation awareness rally

Swachha Bharat Abhiyan

Hand Hygiene demo for patients

Outcomes

- Installation of the water purifier systems ensured adequate supply of water
- The bio-medical solid waste is segregated into different coloured bins
- The air-conditioned dining halls are ventilated with adequate space and well-furnished
- The greenery is maintained by using good quality sprinklers and drippers which keep the gardens lush green
- Solar panels are installed to generate electricity
- People were benefitted by the various social activities and other health awareness program conducted along with Swachhata Abhiyan activities

Dr. Vishwanath Karad MIT World Peace University Pune Maharashtra

MIT World Peace University is a state private university, established under Government of Maharashtra Act No. XXXV 2017 and recognized by UGC. MIT World Peace University- known as MIT-WPU, is a center for scientific, educational, technological and spiritual development for the youth. They enable their students to face the challenges of the present and the future technical advancements of a fast changing world by incorporating best of academics, industrial, research and value-based education.

Residential Facilities

There are 3 girls and 1 boys' hostel. All the toilets are modern, high levels of cleanliness and hygiene is being maintained. Dedicated housekeeping staff is deployed for cleaning of rooms, corridors and the washrooms. Hot water is supplied using solar panels in all hostels. However, there is no shortage of water to the hostels.

Hostel Kitchen Facilities

Hostel has a kitchen and dining hall. The hygiene of the kitchen is maintained. The food supplied in all the hostels is hygienic with less oil and spice. The kitchens are semi-modern, hygienic and clean and are given top priority.

Campus Greenery

There are 12 gardens spread across the campus with different types of trees that reduce pollution. The campus is surrounded by hills on two sides and the location is quite picturesque. All gardens have lawns which are well maintained by the dedicated gardening staff.

Solid and Liquid Waste Management

A three-way method was adopted at MIT- WPU to maintain waterless, odourless and hygienic washrooms. In a drive to preserve the environment, dry leaves from the campus are used for composting and used as manure in the gardens. Four composting enclosures are placed in the campus. Manure is continuously produced and is used. The enclosures are fabricated at the campus workshop.

The bio-gas plant has been revived to recycle the wet waste generated in the campus. The plant has twin benefits to save the expenditure on commercial gas. The saving is about 2 lakh rupees (1 cylinder per day) per annum towards saving of commercial gas.

The used paper in the campus is collected and shredded. The shredded paper is recycled. MIT-WPU is not only recycling the paper but also is generating revenue.

The university got rid of huge e-waste by the disposal of old computers and electronic laboratory equipment.

MIT-WPU is able to save and recycle more than 10, 00,000 liters of rain water during the monsoon season. In a drive to reuse the rain water, the water is allowed to drain from the underground storage tank and redirected to the main supply tank used for non-drinking purpose.

Adopted Village: Shind in Taluka of Bhor

Benefited Families: MIT-WPU undertook a program named 'Rural Immersion' and the families covered are nearly 50.

Type of Intervention Undertaken

The objective of the program is to sensitize and educate urban students about social issues concerning rural people and their mechanisms to fight against all odds in their day to day lives. This is a unique program designed to transform a student into a holistic person. The slogans of the program are

- Swach Gaon Sundar Gaon
- Beti Bachao Beti Padhao.
- Nar asova nari Chadha shikhanachi payri

This program helped students in understanding village values and traditions. Students from different disciplines learnt to adjust themselves in a rural background, away from comforts of their homes and also to be content with scarce resources. They applied the knowledge gained to solve certain problems faced by rural population and bring ease into the lives of villagers particularly farmers. The emphasis of this unique program was research on ground level so that every student can contribute for sustainable development of rural community.

Outcomes

- Deployment of dedicated housekeeping staff for cleaning of rooms, corridors and the washrooms
- The kitchens are semi-modern, hygienic and clean and are given top priority
- Different types of trees are present in the campus that reduce pollution
- Adoption of three-way method to maintain waterless, odourless and hygienic washrooms
- Revival of bio-gas plant to recycle the wet waste generated in the campus
- Revenue is generated by paper recycling
- Rainwater harvesting done for conservation of water.
- Initiation of the rural immersion program that lays emphasis majorly on research at ground level so that every student can contribute for sustainable development of rural community.

Gandhi Institute of Technology and Management (GITAM) (Deemed to be University) Visakhapatnam Andhra Pradesh

GITAM Institute of Technology (GIT) was established in the year 1980 by a group of eminent intellectuals and industrialists under the leadership of Dr. M. V. V. S. Murthi. Over the years the Institute has developed into a full-fledged technological institute offering a wide range of programmes in diverse branches of engineering. The Institute has been at the forefront of innovation for nearly 39 years, doing significant research in emerging areas.

Residential Facilities

The University has 06 hostels for boys and 04 for girls with a capacity of 6000 students and presently accommodating 5113 students. The hostel blocks are equipped with TV, reading room, RO drinking water, solar based hot water, washing facilities, indoor games and round the clock security. Kitchen is furnished with modern cooking equipment to serve food to the inmates in a hygienic atmosphere. GITAM hostels ensure academic ambience, discipline, Wi-Fi and caring environment. Sufficient number of modern toilets with tiled flooring and exhaust air vents are present in every hostel. Special arrangements were made for differently-abled students. Washrooms are maintained and monitored by the amenities committee of the hostels.

Solid and Liquid Waste Management

The University has established a biogas plant which can process biodegradable waste such as kitchen waste, paper, grass and plant leaves. It gives zero garbage and zero effluent and provides high quality manure and methane gas. This technology is sponsored by Baba Atomic Research Centre

(BARC), Mumbai. Vermi-compost is prepared from organic waste collected in the campus. The University handles the inorganic and toxic waste collecting the waste through special bins placed at different places in the campus and the waste collected is handed over to the third party agencies under agreement for disposal to make the campus clean and green. The liquid waste is treated with Decentralised Waste Water Treatment System (DEWATS) and the output water is used for sprinkling the greenery in the campus and the sullage is used as manure to plants.

Hostel Kitchen Facilities

GITAM hostels serve more than 5000 students (both boys and girls) with latest infrastructure, washrooms and students managed kitchens. The food served in the hostels is hygienic as per FSSAI standards. The hostels are inspected every month by "**Parikshan**", a voluntary organization which promote hygiene in the kitchen and grooming of the hostel workers as per government norms.

Campus Greenery

GITAM is committed to ecological health which is reflected in the near complete greenery at Visakhapatnam Campus. A variety of trees, especially Artocarpus, Mangifera, Anacardium, Pongamia, Azadirachta, Ficus and Syzium, known for their high wood density have been planted around the campus. The total forest area is 1, 07,162.67sqm, which is more than 30% of total area of the campus. The water from DEWATS is used for horticulture activities the campus by making use of sprinklers.

Solar Power

The University has established a state-of-the-art technology for solar photovoltaic (SPV) power generation which is becoming affordable. SPV systems score over other systems such as wind energy systems in that the operation and maintenance costs are bare minimum. In view of this, GITAM has setup roof-top SPV systems with 1,070 kWp installed capacity. This is meeting 12% of the electricity requirements, saving Rs. 94 lakhs per annum. The system is spread across 16 buildings and served by 25 invertors of 20 kW and 50 kW capacities.

Adopted Villages: Five villages have been adopted viz. Peddipalem, Sirlapalem, Pekeru, Mukundapuram, Dabbanda in Anandapuram Mandal, Visakhapatnam District.

Families Benefited: 1670.

Types of Interventions Undertaken in the Area

To impart social responsibility among the student community, many projects have been successfully completed by GITAM in rural areas to support the livelihood of rural households.




Outcomes

- The liquid waste is treated with Decentralised Waste Water Treatment System (DEWATS) and the output water is used for sprinkling the greenery in the campus and the sullage is used as manure to plants
- The hostel blocks are equipped with TV, reading room, RO drinking water, solar based hot water, washing facilities, indoor games and round the clock security
- Washrooms are maintained and monitored by the amenities committee of the hostels.
- Sufficient number of modern toilets with tiled flooring and exhaust air vents are present in every hostel
- Installation of biogas plant which can process biodegradable waste such as kitchen waste, paper, grass and plant leaves that results in zero garbage and zero effluent and provides high quality manure and methane gas
- Installation of roof-top Solar Photo Voltaic systems with 1,070 Kwp installed capacity
- The Instituiton helped in making the adopted Villages free from Open defecation (ODF)

Graphic Era Hill University Dehra Dun Uttarakhand

Graphic Era Hill University has the state of art infrastructure and beautifully designed and environment friendly campus with green cover and amenities like use of solar energy, STP in the campus and student hostel. Founded in 2011 Graphic Era Hill University is today widely known for its innovative and rigorous education which has nurtured professionals across industries and sectors in India and beyond. Graphic Era Hill University has adopted a global approach to education and research with focus on International perspectives and expertise.

Student Strength	**5150**
Staff Strength	**282**

Residential Facilities

The hostel rooms are equipped with Hi – Tech facilities like TV, AC and proper studying area. Toilets are available in all parts of the building with separate toilets for differently-abled men and women. The student toilet ratio is 1:25 in the campus and 1:3 in the hostel. Two reverse osmosis process units each with a capacity of 500 Ltrs / hr. is fitted in the campus for 24 x 7 drinking water supply.

Hostel Kitchen Facilities

All hostel mess kitchens are fitted with high grade worktables and equipment such as Semi – automated dough kneading machine. All kitchens have chimneys and ducts. All food handlers wear caps, aprons and gloves. Electric fly catchers are installed in kitchen and mess area. Hostel washrooms are cleaned twice a day at 8.30 a.m. and 5.30 p.m. Automated cleaning machines are used to clean the entire premises. Cleaning is outsourced to professional house-keeping agencies.

Solid Waste Management

Two sewage treatment plants are installed in the campus and the hostel to treat 200 m cubic of waste per day. The plant recycles 25 lakh answer scripts and other cellulosic waste generated from the university every year. This has resulted in creation of beautiful products like stationery of the university, carry bags, soft boards etc.

Solar Power

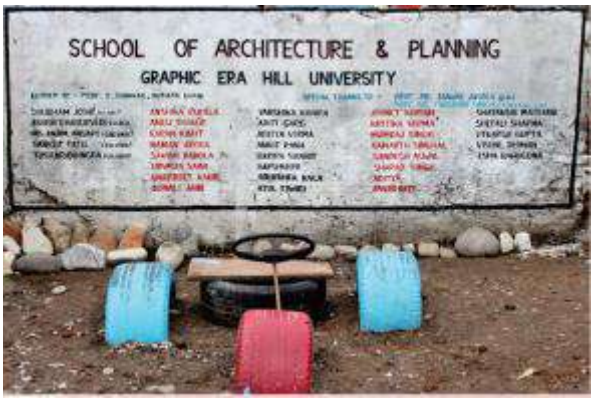
The university has installed a solar power plant with a capacity of 111Kw. based on grid technology in the campus. This supplies electricity to State Power Board that saves on electricity bills and also conserves energy.

Swachh Bharat Internship

An experimental Swachh Bharat Internship for 100 hours was initiated by MHRD in which 23 students participated. Students visited Hadia gaon village and conducted activities of their choice to the cause of rural sanitization. Many Swachh Bharat Abhyan rallies were also conducted by the students.

Students of the School of Architecture and Planning and NSS identified a more than half century old dilapidated Panchayat Raj building which was in a state of disrepair and was a haven for anti-social elements and drug addicts. The students cleaned up the place with the permission of the local Pradhan.

Students and faculty of GEHU have started the Project `Paani – Save water, Save life'. It is an initiative to create awareness and educate people on water crisis. They were involved in a door-to door campaign and used digital media to create awareness and educate the people to save water by rain water harvesting techniques for sustainable living.


SCHOOL OF ARCHITECTURE & PLANNING
GRAPHIC ERA HILL UNIVERSITY


GRAP
PROF. R. SHANK
SHUBHAM JOSHI (U.SEC)
ANSHIK

जल संरक्षण की प्रेरणा बने दून के हरीश

ड्राफ्टिक एता विधि में प्रोफेशनल हैं हरीश कुमार, लंबे समय से पानी की बर्बादी रोकने के लिए कर रहे हैं काम

Outcomes

- Hostel rooms equipped with all Hi – Tech facilities like TV, AC and proper studying area
- Installation of two reverse osmosis process units each with a capacity of 500 Ltrs / hr. for 24 x 7 drinking water supply
- Hostel mess kitchens fitted with high grade worktables and equipment such as Semi – automated dough kneading machine
- Installation of two sewage treatment plants to treat 200 m cubic of waste per day
- Installation of Solar power plant with a capacity of 111Kw. based on grid technology
- Swachh Bharat Internship was initiated by MHRD in Hadia gaon village
- People educated and awareness created to save water by rain water harvesting techniques for sustainable living

GLA University Mathura Delhi

GLA has been actively involved with social causes since its very inception and has drawn appreciation from one and all for its work in various facets of societal paradigms. University follows the policy of empowering learning experience in established and emerging professions and capacity-building for leadership, entrepreneurship and innovation. University imparts quality professional education, to conduct commendable research and to provide credible consultancy and extension services as per current and emerging socio-economic needs. University is totally student-centric, thus promoting the overall growth and development of intellect and personality of our prime stakeholders, namely students, so that our alumni are worthy citizens and highly sought-after professionals worldwide. Student strength is 8026 and faculty strength is 450.

Residential Facilities

The University has 15 boys' hostel and 4 girl's hostels. Water is available for 24 hrs through overhead tanks and centralized RO water supply system for hostels, academic blocks and residential buildings.

Waste Management

The university has Sewage Treatment Plant of capacity 1.5 MLD which converts waste water into usable water for gardening and cleaning purposes.

Greenery and Water Conservation

GLA University feels its moral binding to save the water and reuse the waste water in gardening and agriculture sector. The University has green coverage area of more than 30%

Adopted Villages

GLA University, Mathura has adopted the following five villages in Mathura District under Swachhata Abhiyan namely

- Jait
- Devi Atas
- Kunjera
- Bhartiya and
- Sakna

Interventions Undertaken in the Villages

Following activities have been conducted:

- General Awareness Programs for the Sanitation and Cleanliness.
- Medical camps in all the adopted villages.
- Promotion of organic farming in all adopted five villages.
- Soil Testing.
- Awareness campaigns regarding harmful effects of single use plastics
- Under "Swachhta Hi Sewa" Campaign the University replaced Polybags brought by villagers from their houses with the Cloth Bags.

Outcomes

- The University has 15 boys' hostel and 4 girl's hostels
- Water is available for 24 hrs through overhead tanks and centralized RO water supply system for hostels, academic blocks and residential buildings
- The university has Sewage Treatment Plant of capacity 1.5 MLD which converts waste water into usable water for gardening and cleaning purposes
- The University has green coverage area of more than 30%
- GLA University, Mathura has adopted five villages in Mathura District under Swachhata Abhiyan
- Under "Swachhta Hi Sewa" Campaign the University replaced Polybags brought by villagers from their houses with the Cloth Bags

Guru Nanak Dev University
Amritsar Punjab

Guru Nanak Dev University was established at Amritsar on November 24, 1969 to mark the 500th birth anniversary of Sri Guru Nanak Dev Ji. It is both a residential and an affiliating university. The University is successfully catering to twenty thousand students in various faculties at University Campuses and Constituent Colleges. This University is declared University with Potential for Excellence by University Grants Commission, New Delhi to establish Centres of Advance Studies in Chemistry, Physics, Environmental Sciences and Comparative Literature. The University is accredited with a CGPA of 3.5 out of 4 with 'A' Grade, highest for any University by the National Assessment and Accreditation Council and Academic Staff College of the University placed at 12th rank by NAAC, Bengaluru. The campus' student strength is 12,500 and Faculty strength is 420.

Making its humble beginning in an annexe of the adjoining Khalsa College, the University today boasts of 35 academic departments at the University Campus and 148 affiliated colleges and 71 Associate Institutes, most are situated in the rural areas, but a large area is still beyond the reach of the rural poor. It has been the effort of the University to be proactive in its reach to the rural masses. The University has endeavored to reach out to the rural poor, with the launch of an organization named the Progressive Education Society to help and train children from poor families of the rural Punjab, and to equip them to crack IIT-JEE and other national tests.

Residential Facilities

GNDU is a residential University, which houses one international and seven national hostels (3 boys and 4 girls). The hostels have 587 water efficient modern toilets with modern flooring and equipments along with exhaust and air vents. University has 24 hrs water supply systems. Dedicated staff maintains the hygiene of toilets twice daily.

Hostel Kitchen Facilities

The hostel kitchens are installed with chimneys and modern cooking equipments. LPG is used for cooking with adequate mechanisation of food preparation. Cooks/servers use clean and sterilised apparels along with hand gloves, hair caps, etc. Dining halls have tiled flooring for hygiene.

Solid and Liquid Waste Management


Segregated solid waste is collected in separate bins. A large scale vermin composting unit consisting of 8 to 10 beds (size 6 ´ 3 foot) is operative to utilize organic waste of the campus. An efficient ETP is functional to treat wastewater. Recycled water is used for irrigation.

Campus Greenery

The University has more than 35% green cover with rich biodiversity of the region conserved in botanical garden. Garden maintenance staff is inhouse. Garden/Lawns are irrigated with recycled water using sprinklers with less than 10 metre distance of water source from the garden/lawn.

Solar Power

As a major initiative towards energy conservation, the University has installed roof top solar energy plant of 1.8 MW capacity over 22 buildings.

Adopted Villages

Guru Nanak Dev University has adopted the following villages of Amritsar District

- Bundala
- Gogo Mahal
- Jagdev Kalan
- Kohali
- Naushera

Interventions Undertaken in the Villages

The activities related to Swacchata Pakawada and other national flagship schemes are regularly organised. The villagers feel sensitised and empowered with the implementation of national schemes. The adopted villages have attained the status of ODF.

Outcomes

- GNDU has one international and seven national hostels (3 boys and 4 girls)
- The hostels have 587 water efficient modern toilets with modern flooring and equipments along with exhaust and air vents
- University has 24 hrs water supply systems
- Segregated solid waste is collected in separate bins
- A large scale vermin composting unit consisting of 8 to 10 beds (size 6 ´ 3 foot) is operative to utilize organic waste of the campus
- The University has more than 35% green cover with rich biodiversity of the region conserved in botanical garden
- the University has installed roof top solar energy plant of 1.8 MW capacity over 22 buildings
- The activities related to Swacchata Pakawada and other national flagship schemes are regularly organised.
- The villagers feel sensitised and empowered with the implementation of national schemes. The adopted villages have attained the status of ODF

Gujarat National Law University (GNLU) Gandhinagar Gujarat

Gujarat National Law University (GNLU) is the statutory university established by the Govt. of Gujarat under the Gujarat National Law University Act, 2003. GNLU is committed to being a leader in the research, teaching and extension of environmental sustainability. The spacious 50 acre sprawling campus of GNLU is not only home to its students and staff but also a myriad of trees, flowers, shrubs, butterflies, birds and other living creatures, including rare and precious species. Living in harmony with the environment is a major theme of the education here.

Student Strength	**1032**
Staff	**26**

Residential Facilities

There are 377 toilets in the girls hostel, 87 in the Training Residency, 87 in the Boys hostel, 48 in Guru Bhavan, 88 in Shishya Bhavan, 87 in the Administrative Block and 78 toilets in the Guest house and staff quarters; so a total of 877 toilets are there in the campus. The toilets are maintained by cleaners who work in different shifts. The water is supplied through 2 bore wells in the campus. The university has built special rooms for the PWD children, the rooms for them have attached bathrooms and are built to suit their needs.

Solid and Waste Management

The solid waste at the university is managed by a contractor. They have a Sanitary Napkin Incinerator machine. The liquid waste is managed by Gandhinagar Maha Nagar Palika. The liquid waste goes to Gandhinagar Urban Development Authority, Gandhinagar for further municipal treatment.

Hostel Kitchen Facility

GNLU provides 4 healthy meals viz. breakfast, lunch, snacks and dinner in a common dining area with two floors, for students and faculty alike. In addition to this, there is a mess which is functional during the night. The kitchen is run by Mohani Caterers, a pan-India catering service that also runs the canteen at the State Bhavan and the Parliament in the capital. Utmost care is given on health and hygiene. The university has appointed a special Mess Committee comprising of selected

students and faculty which roll out regular surveys and inspections and decide the menu accordingly. The area for cooking, serving, and dish washing is clearly visible to the students and can be accessed freely.

Campus Greenery

The Campus has more than 1000 trees of different kinds, shrubs and plants. There are 8 gardeners who regularly prune and maintain these trees. Dogs and cats can be seen in the campus along with many birds like peacocks and sparrows the university has started an initiative called *'(Green) NLU'* with the help of GNLU students. The aim of this initiative is to minimize single use plastic in campus and generate environment sensitivity. To further this, the Mess in the campus has completely gotten rid of plastic cutlery and straws.

Innovative Usage of Technology

GNLU has 300 kwt solar rooftop project to generate solar power. The University is deliberating on maximizing use of renewable sources of energy.

Adopted Villages: Koba, Rayasan and Valad

Intervention Undertaken in the Villages:

The total population of Koba village is 3,175 with literacy rate 83.3%. These families are regularly covered via different pro bono activities. Different activities are covered for different sections of the people; the daily food distribution drive covers 50-60 children, the blood donation camp and free health check-up covers about 400 donors and patients a year. Additionally, the University's Centre on Law and Society and its Legal Services Committee wing, undertakes cleanliness drives *(swachchta pakhwada)*, legal aid and knowledge dispensing Legal Aid Clinic, adult literacy focused group discussions, Know Your Rights session in the government schools. The village Sarpanch is actively involved in these activities. These activities are also carried out in the other neighbouring villages. The faculty and students also undertook a week long NSS drive in the villages.

Outcomes

- There are a total of 877 toilets all around the campus, maintained by cleaners who work in different shifts
- The water is supplied through 2 bore wells in the campus
- The university has built special rooms for the PWD children; the rooms for them have attached bathrooms and are built to suit their needs
- The solid waste at the university is managed by a contractor. They have a Sanitary Napkin Incinerator machine
- The liquid waste is managed by Gandhinagar Maha Nagar Palika
- Utmost care is given on health and hygiene in the Mess. The area for cooking, serving, and dish washing is clearly visible to the students and can be accessed freely
- The Mess in the campus has completely gotten rid of plastic cutlery and straws
- The university has appointed a special Mess Committee comprising of selected students and faculty which roll out regular surveys and inspections and decide the menu accordingly
- The Campus has more than 1000 trees of different kinds, shrubs and plants
- The university has started an initiative called *'G(reen) NLU'* with the help of GNLU students. The aim of this initiative is to minimize single use plastic in campus and generate environment sensitivity
- GNLU has 300 kwt solar rooftop project to generate solar power
- The university undertakes many activities like daily food distribution drive which covers 50-60 children, a blood donation camp and free health check-up covers which covers about 400 donors and patients per year
- The University's Centre on Law and Society and its Legal Services Committee wing, undertakes cleanliness drives *(swachchta pakhwada)*, legal aid and knowledge dispensing Legal Aid Clinic, adult literacy focused group discussions, Know Your Rights session in the government schools

Hindustan Institute of Technology and Science Kelambakkam Chennai Tamilnadu

Hindustan College of Engineering, started in the year 1985, was conferred the "University Status" by University Grants Commission (UGC), Government of India, Under Section 3 of UGC Act 1956 from the academic year 2008-09 and under the name HITS (Hindustan Institute of Technology and Science).HITS is one of the most sought after engineering Institutions in Tamil Nadu. It is known for its highly qualified and experienced faculty and excellent infrastructural facilities for curricular and extracurricular activities.

Student Strength	**6500**
Staff Strength	**694**

Residential Facilities

The university campus has six hostels, three for boys and three for girls. The rooms are AC/Non AC. The rooms can be shared on the basis of two`s, three`s or multi sharing. All rooms have attached or common toilets, which are western in style. The campus has covered wells, these supply fresh water to the entire campus through a pipe line system and overhead tanks. The meals in the hostels are cooked using LPG. The kitchens are modern with steam boilers, well ventilated chimneys, exhausts and drainage system.

Solid and Liquid Waste Management

The sewage water is treated and used for watering the garden and in flush tanks after ultra filtration. The campus has a proper sewage treatment plant since the past 12 years. The campus does solid waste management through vermi compost. The waste paper is recycled and sent to TNPL. The NSS & NCC students are involved in creating awareness among the rural population (in adopted villages) against 'open defecation', use of sanitary napkins, use of technology in agriculture, organic farming, etc. which come under ' Corporate Social Responsibilities'.

Pollution Control Initiatives

The campus is plastic free. Junk food & aerated soft drinks are completely prohibited. The campus uses solar energy, wind power, rain water harvesting to create a sustainable environment. Rain water is harvested by recharging the ground water through large wells into which the rain water is collected. The students are involved in innovative 'start-up' projects through Hindustan Technology Business incubator (HTBI). The university has taken measures to promote water and electricity conservations measures.

The university has taken steps to control pollution control by restricting carbon emission. They also undertake research to find alternate energy / power sources.

Health Initiatives

'Healthy Mind in a Healthy Body' this is the focus at the campus, with emphasis on yoga, horse riding, swimming and multiple outdoor and indoor sports. Cycling is encouraged for students within the campus to avoid pollution. Students volunteer (Yuv Tarang) in 'tree plantation', organic vegetable gardening & horticulture. The university promotes women empowerment programmes by encouraging girls to participate in all extra- curricular activities and competitions / sports and games.

The university encourages students to promote to promote Indian culture, traditions and heritage through extra- curricular activities. (Music, art, dance, theatre etc.).

Campus Greenery

The University has adopted '**One Student One Tree'** Policy. There are many fruit trees like Jamun, Mango, Coconut, Goa berries, Chikoo in the campus. The green cover is about 80% with hedges and other ornamental trees.

Adpoted Villages:

The university has adopted six villages; Kayaar, Padur, Venbedu, Illalur, Kelambakkam, Thiruporur and Thandalam in Kancheepuram district. More than 25 programmes have been organized in the adopted villages in the current academic year, under Swachhta awareness and promotion activities. About 25,000 people (approximately 9000 families) were sensitized on various swachhta aspects.

Interventions Undertaken in the Villages:

The volunteers at the university have undertaken awareness in the campus on plastic bag pollution, environmental hazards, and street plays, cleaning of streets, school compound, pond cleaning, beach cleaning etc. The teams also screened videos to the villagers related to cleanliness drive. Swacchta Programmes were held in Kayar Govt.School (Kayar) and CSI Primary School (Venbedu). HITS students have been involved in pond cleaning in Thiruporur. A rally was conducted in Kovalam beach after the cleaning process. A seven-day Swachhta Summer Internship Camp was held for the rural population. The villagers realised the importance of Swachhta principles when they were faced with mosquito menace. The cleanliness drive by the students in the village helped reduce this considerably. Photographs showing the activities are attached:

Outcomes

- The university has a proper sewage treatment plant since the past 12 years
- Solid waste is managed through vermi compost
- Waste paper is recycled and sent to TNPL
- NSS & NCC students are involved in creating awareness among the rural population
- Rain water is harvested by recharging the ground water through large wells
- Students are involved in innovative 'start-up' projects through Hindustan Technology Business incubator (HTBI)
- The university has taken steps to control pollution control by restricting carbon emission
- **Healthy Mind in a Healthy Body'** this is the focus at the campus, with emphasis on yoga, horse riding, swimming and multiple outdoor and indoor sports
- Students volunteer (Yuv Tarang) in 'tree plantation', organic vegetable gardening & horticulture
- The University has adopted '**One Student One Tree'** Policy
- The university has adopted six villages in the current academic year, under Swachhta awareness and promotion activities.

IIS University Jaipur (Deemed to be University) Jaipur Rajasthan

The University was established in 1995. It has nearly 305 courses. It is a University which is committed to excellence and overall development of the students.

Residential Facilities

There are three hostels in the campus. The toilets are modern i.e. styled pots fitted with tiles on the floor and partly on walls, water flush systems, well-ventilated and fitted with all modern facilities such as health-faucets, air-fresheners, dustbins, soap-dispensers etc. The toilets are renovated from time to time in a phased manner, as and when required. The University has also installed four Sanitary Napkin Vending Machines at different places.

Water Supply Systems

In the campus, 24 hrs. water supply is available by means of bore well of 8-inch diameter. The borewell is continuously charged by two rainwater harvesting units. An underground water tank of capacity 47560 ltr. is filled with water drawn from the bore well by using a submersible pump which has a sensor system. The total hours of pump operation are maintained in a log book.

Solid Waste Management

Wet and dry wastes are separately and regularly collected from various places on the campus by the waste collection vehicles from the Jaipur Municipal Corporation for disposal as per their waste management system. However, the kitchen waste from the hostel mess is biodegraded in the vermin composting unit set up on campus and converted to manure (vermicompost), which is then used as fertilizer. The university also has a proper Bio-waste disposal system in place and the

contract for which has been signed with M/s Instromedix Biomedical Ltd., for the collection and disposal of the waste. In addition, the e-waste generated is collected annually by CII for further recycling and disposal.

Liquid Waste Management

The R.O. waste water is collected and recycled in an underground water tank. This water is used for watering the plants and garden inside the university campus, using a 3HP pump.

Vermicompost Unit

Grey water recycling unit

Hostel Kitchen Facilities

The hostel has a hygienic kitchen equipped with mechanized food preparation equipment and hygienic stainless-steel platform tables and chimneys. The medium of LPG is used as the cooking fuel. The furniture is modern and the floor of the dining area has vitrified tiles.

Proper dress code norms are followed by the hostel mess workers.

Campus Greenery

The green coverage on campus is approximately 30% and the focus was on planting of different varieties of plant species. A team of four gardeners headed by a Garden Superintendent who are on University rolls as permanent employees of the university to maintain greenery on campus. Gardening equipment such as sprinklers, water cans, hose pipes and planters are regularly made use of. The University has around 300 trees and plants in and around the campus.

Lawn Watered with Sprinklers

Solar Power

Solar panels of 75 KW. capacity are installed on the roof of the university buildings, producing on an average 375 units of electricity, per day. Solar geysers too have been installed in the hostels to ensure optimum use of natural bounties. The University was awarded Rajasthan Energy Conservation Award (RECA-2018) by Department of Energy, Govt. of Rajasthan on 14 December, 2018.


Rajasthan Energy Conservation Award
(RECA-2018)
Certificate

Adopted Villages: The University has adopted a cluster of five villages namely-Nevta, Hasampura, Muhana, Ramsinghjipura and Jaisinghpura in District Jaipur**.**

Families Benefited: Approximately 400 families in all are covered by the effort.

Intervention Undertaken in the Villages:

The University is in regular contact with the village Sarpanchs and residents and works on identification of problems in thearea. The problems and demands were discussed with the Jaipur Collector to find out solutions. The University completed the village and household survey in the above adopted villages. The committee planned different activities for each village so as to build a rapport with them and ensure a sustainable bond such as cleanliness, health and hygiene, literacy and other awareness campaigns. Approximately, 100 students participated in these activities. Moreover, with the efforts of the faculty and students of the university, all the villages adopted have been granted Open Defecation Free (ODF) status. Besides this, the Centre for Swachh Bharat - Swastha Bharat of the University has been set up in the University, which over the past 2 years has conducted the Swachh Bharat Summer Internship. In 2018, 3 best teams were awarded cash prizes of Rs. 60,000/- by MHRD.

In addition, the NSS units of the university have undertaken the following Swachhta activities in the current session viz. tree plantation drives, swachhta week, sensitization by guest lectures and cleaning of streets in surrounding areas.


Expert Lecture on Water Conservation



Survey on Water Conservation in the Villages

Outcomes

- Kitchen waste biodegraded by vermin-composting unit and converted to manure which is used as fertilizer
- Toilets fitted with tiles on the floor and partly on walls, water flush systems, well-ventilated and fitted with all modern facilities such as health-faucets, air-fresheners, dustbins, soap-dispensers etc.
- Submersible pump with a sensor system used to draw water from the bore well
- Gardening equipment such as sprinklers, water cans, hose pipes and planters used for maintenance of greenery
- Installation of roof top solar panels with a capacity of 75 KW
- Open Defecation Free (ODF) status granted to all adopted villages

Indraprastha Institute of Information Tech. (IIIT) Delhi

Indraprastha Institute of Information Technology, Delhi was created as a State University by an act of Delhi Government (The IIIT Delhi Act, 2007) empowering it to do research and development, and grant degrees. In a relatively short time, it has earned an excellent reputation in India and abroad for being a center of quality education and research in IT and interdisciplinary areas. The institute has, in a short span of time, established a strong research culture, focused research groups, and innovative education programs. The institute is accredited 'A' grade by NAAC (National Assessment and Accreditation Council) and has been accorded 12-B status by the University Grants Commission (UGC).

Student Strength	**2245**
Faculty Strength	**60**

Residential Facilities

At present, there are four hostels, three for the boys having 1034 seats, one girls hostel with 392 seats and 22 rooms for married accommodation for PhD scholars in the campus. Each room in the hostel is provided with modern furniture including bed, table, chair, bookshelf, cupboard, etc. The rooms are also fitted with air conditioning system to supply cooling in summers and heating in winters. High-speed Internet connectivity is also available in the hostels. The common room in each hostel is equipped with comfortable seating arrangement for watching television and reading newspapers and magazines. Sports and other recreational facilities are also available. Each hostel has modern toilet and water system. The water supply is available 24x7. The wash rooms are provided with hot water supply through solar based hot water system. A high standard of toilet hygiene is maintained as they are cleaned thrice a day.

Solid and Liquid Waste Management

IIITD has two 65 kld fully operational Sewage treatment Plants. Two more plants of 2X90 kld capacity are being commissioned and likely to be added into system by October, 2019. In addition, the campus has rain water harvesting pits. Thus, the campus is zero sewage discharge facility. All solid waste is segregated in bio-degradable and non-bio degradable waste on site and is stored in separate color bins of "Green", "Red" and "Blue". All bio-degradable waste, wet and garden waste is stored at site for generating compost. The daily solid waste is disposed off to M/S DDSL (M/S IL&FS)

an agency appointed by SDMC-**Smart Composter Machine** to generate manure. The institute has installed an eco-friendly state of the art "Composter" to convert the wet food and garden waste into manure. The machine can handle up to 100 kg. wet and garden horticulture and food waste. IIITD is one of the first institutes to introduce the eco-friendly initiative to use smart composter machine. The Institute is a zero sewage, zero wet and green waste generating institute.

Smart Composter Machine

Sewage Treatment Plant

Dust Bin Colour code

Hostel Kitchen Facilities

The kitchen has modern cooking equipment and cold room storage with all facilities.

The exhaust system is provided with air filtration unit to avoid any air pollution.

Dining Area

Air Filtration Unit

Kitchen Area

Campus Greenery

Campus maintains 31000 Sq.m. of green cover with irrigation facility from the STP plants.

Campus Greens

Solar Power

The Solar power system generates 220 KW power which caters to 4% of the total power requirement of the campus. The solar based system supplies hot water to hostels and faculty residence.

Terrace Based Solar Panels

Adopted Villages:

Harkesh nagar in New Delhi was adopted by the Institute.

Interventions Undertaken in the Villages

Before the Intervention

The DDA area is approximately 100 acres adjoining IIITD and Harkesh nagar village was an open defecation area for villagers with a dense jungle of Kikar plantation. There was a temporary pathway which passed through the jungle from Harkesh Nagar/ IIITD to Okhla Metro station. In addition to open defecation, the area was a hub of criminals and drug addicts with regular incidents of mobile and laptop snatching etc.

After the Intervention

IIITD along with DDA and Harkesh Nagar residents have converted the area into a biodiversity park. More than 6000 trees have been jointly planted and a proper pathway has been constructed for students and Harkesh Nagar residents. Recently more than 500 trees were planted with help of forest department in October, 2018. The area is now transformed to a green cover full of trees and is extensively used by villagers.

Benefits

Open defecation has totally stopped. There is a proper passage to Metro station for residents and students. No criminal activity was reported from the area. The park is extensively used by villagers for walks, yoga classes and sports. The institute is proud of the efforts and DDA now plans to make it a tourist destination as well.

Outcomes

- Hostel accommodation to students fitted with modern amenities like air conditioning system and internet connection
- It is a zero sewage, zero wet and green waste generating institute
- Initiation of the eco-friendly use of smart composter machine
- Maintenance of high standards of toilet hygiene
- Provision of all modern cooking equipment and a cold room storage with all facilities
- Generation of 220 KW power from the solar power system
- Successful implementation of Swachhta activities

Indian Institute of Technology Gandhinagar Gujarat

Student Strength	1772
Faculty Strength	128

Residential Facilities

There are 06 hostels in the campus and 06 more are under construction and will be occupied in different phases from September 2019 to April 2020. IITGN is using waterless urinals at the student hostels. IITGN began experimenting with waterless urinals at the temporary campus in Chandkheda and found them to be quite successful. The same technology, the Zerodor, developed by a research group at IIT Delhi, was then brought to the new campus in Palaj.

Throughout the campus, water-saving aerators are used in all the washbasins, sink taps and faucets. These dispense water at a controlled rate by mixing foam with the stream of water. The use of foam adds air to the water stream, resulting typically in about a 70% reduction in water consumption compared to the taps and faucets that do not have such regulators installed. IITGN has also installed water efficient, dual flush toilet tanks in the hostel washrooms.

The Hostel buildings including the Dining Mess have 44 solar hot water units each with a capacity of 500 liters. The hostel units have electrical backup, set on timers, to provide additional heating for three hours in the morning and three hours in the evenings during winter season.

Each hostel has overhead water tank with the capacity of 16000 litres (recycle water tank 3840 Litres & Domestic water tank 12640 liters) each. The raw water coming from the Narmada Canal and treated in the Water Treatment Plant, 90—95% is usable as fresh water, depending on the season. The highest percentage is available as fresh water during the winter and pre-monsoon season, while the lowest percentage is available during the monsoon and immediate post-monsoon season. In monsoon season rain water preserved at Jal Mandaps (rain water harvesting structures) is also utilized for domestic purpose after treatment. The rainwater collected in each of these Jal Mandaps is pumped to the Water Treatment Plant where it is mixed with Narmada Canal water, treated, and pump to the rooftop tanks after chlorination as drinking water. Rejected (or dirty) water after treatment at the WTP is used for irrigation of the campus plantation. Recycled grey water from the Sewage Treatment Plant is also utilized for irrigation purposes. Approximately 75% of the treated sewage is available as recycled water, whereas 25% of the treated sewage is consumed through evaporation losses in the PGF, backwash etc.The water supply is available in the campus round the clock.

Solid and Liquid Waste Management

An eco-friendly sewage treatment plant is established at the campus along with other instruments such as biogas plant and compost pits for proper solid waste disposal. Specialized agencies have been engaged for proper disposal of recyclable, sanitary and e-waste. IITGN also engages actively with the community inside and in the neighboring villages to promote good practices pertaining to sanitation and waste management, and has included cleanliness thinking in its curriculum through the Foundation Program, a five-week compulsory program for first year undergraduate students.

IITGN has established clean living environment for the construction workers engaged in the development of new upcoming buildings on the campus.

Biogas Plant: IITGN's has built a biogas plant to process the wet food waste (coming primarily from the hostel mess). This biogas plant, based on technology developed by the Mumbai-based Bhabha Atomic Research Centre (BARC), generates manure and electricity (generated through a gas generator) from organic waste, with no other by-products.

Zero Sewage Discharge: There are no outgoing sewage lines from the campus to the municipality, making the campus a zero-discharge campus. All wastewater and sewage generated on campus is treated through anaerobic reactors and a root zone treatment system. This recycled water is then piped separately throughout campus and is currently used for irrigation.

Hostel Kitchen Facilities

IIT Gandhinagar is certified by FSSAI (Food Safety and Standards Authority of India) as 'Eat Right Campus' with 5 star rating. IITGN ensures high standards for the quality of food served at its dining halls and the other eating joints. Appropriate measures are taken to maintain cleanliness and hygiene. All the food joints of the campus have valid FSSAI license. The institute focuses on the healthy food habits; the menu served in the mess is tailored every month by the student mess council for a balanced diet that provides the body with essential nutrition. All the food joints use fortified foods (+F) such as double fortified Salt, Rice, Wheat Flour, Oil and Milk, to further enhance the food nutrition. Students desirous of having non-vegetarian dishes can opt for the same by sharing their preference with mess secretary in advance against nominal additional payment. IIT Gandhinagar mess also serves Jain food to the students preferring it. Further, each floor of the

hostel has fridge, microwave oven and induction cooktop in pantry area which facilitates to cook food and snacks for the students who wish to.

Campus Greenery

There were nearly 2500 trees at the site when construction started at the campus. 75 neem trees were transplanted to avoid cutting them (out of which 56 have survived and now in full bloom) using advanced hydraulic machines and keeping 90% of the trees intact through careful siting of the buildings. Nearly 15,000 trees of native varieties were planted on the campus during the construction process from 2013-2016. Land pockets have been developed in 2016-17 as green pockets by planting about 750 fruit bearing trees such as Chikoo, Pomegranate, Guava, Custard Apple, Lemon etc.

Solar Power

The Campus has rooftop PV panels and a unique solar carport. Together they have a capacity of 500kWp which at its peak is approximately half of the campus demand of 1MW, and helps save upto Rs. 5.3 Lakhs per month of electricity bills. The 90 vehicle-carport is perhaps the first such facility in Ahmedabad-Gandhinagar area.


Adopted Villages: The Basan Village, Gandhinagar Taluk in Gujarat has been adopted by the Institute.

Benefited Families: 1000 families covered and the primary school

Intervention Undertaken in the Village:

The Basan village had no proper system of waste collection and disposal. There was littering and dumps of waste, which was sometimes puton fire. Mixed waste was dumped into GMC waste collection vehicle, which would take the route only on the main roads. There is no proper system of waste disposal from the schools and anganwadis in the villages.

The Institute created awareness among the community about proper handling of categories of waste; segregation of waste at source and taking steps to control littering in the village. These are followed up with continued awareness sessions for the village community and students in the primary school to change their mindsets towards keeping the village clean and to segregate their waste at source. The Institute has conducted training and capacity building programs for the green karamcharis who collect waste and the also the team which sweeps in the village. The Institute has distributed handouts to the community and has put posters in the main areas in the village to create awareness about waste segregation.

The Institute has engaged with the community at the ground level to educate them about the advantages of cleanliness and is striving to improve the collection process with the support of GMC.


Outcomes

- There are 06 hostels in the campus and 06 more are under construction and will be occupied in different phases from September 2019 to April 2020
- IITGN is using waterless urinals at the student hostels
- water-saving aerators are used in all the washbasins, sink taps and faucets throughout the campus resulting in 70% reduction in water consumption
- The Hostel buildings including the Dining Mess have 44 solar hot water units each with a capacity of 500 liters.
- The raw water coming from the Narmada Canal and treated in the Water Treatment Plant, 90—95% is usable as fresh water, depending on the season
- Rain water preserved at Jal Mandaps (rain water harvesting structures) is also utilized for domestic purpose after treatment.
- Specialized agencies have been engaged for proper disposal of recyclable, sanitary and e-waste
- IITGN has included cleanliness thinking in its curriculum through the Foundation Program, a five-week compulsory program for first year undergraduate students
- A biogas plant, based on technology developed by the Mumbai-based Bhabha Atomic Research Centre (BARC), generates manure and electricity (generated through a gas generator) from organic waste, with no other by-products
- IIT Gandhinagar is certified by FSSAI (Food Safety and Standards Authority of India) as 'Eat Right Campus' with 5-star rating
- Trees have been transplanted using advanced hydraulic machines and keeping 90% of the trees intact through careful siting of the buildings
- The Campus has rooftop PV panels and a unique solar carport; the 90 vehicle-carport is perhaps the first such facility in Ahmedabad-Gandhinagar area
- The Institute has created awareness among the village community about proper handling of categories of waste; segregation of waste at source and taking steps to control littering in the village

Indian Institute of Technology Guwahati Kamrup Assam

Indian Institute of Technology Guwahati (IIT Guwahati, IITG) is a public institution established by the Government of India, located in Guwahati, in the state of Assam in India. IIT Guwahati was established in 1994 by an act of parliament and its academic programme commenced in 1995. It is the sixth IIT established in India. IIT Guwahati is officially recognized as an Institute of National Importance by the government of India. The current student strength is approximately 6117 and faculty is 413 respectively.

Student Strength	**6117**
Staff Strength	**413**

Residential Facilities

The hostels of IIT Guwahati are named after rivers and tributaries of the North-Eastern states of India. All the hostels have spacious single room accommodation and have all basic and modern amenities like food mess, canteen, lounges, recreation room, etc. Toilets and washrooms of all the hostels are equipped with modern fittings and are friendly for especially abled students with 24 hours supply of cold and hot water and round the clock cleaning services.

Solar Power

Roof top solar photovoltaic panels and plants are installed at IIT Guwahati campus. A total of 940.74 KW power is generated through the photovoltaic plants installed on roofs of various buildings across the campus. Apart from this, solar water heaters are installed at various hostels inside the campus to harness green energy. Rain water is harvested very efficiently and channeled to the large lakes and water bodies within the campus which is then reused for gardening, construction, washing vehicles and for other common maintenance purpose. Artificial ponds have also been developed to harvest rain water to be used for various purposes.

Hostel Kitchen Facilities

The kitchens in each and every hostel across the Institute are furnished with modern equipment and services of professional caterers are engaged to maintain cleanliness and hygiene Services of institute employees with background in hospitality management are engaged to oversee the management and maintenance in all the hostels.

Solid and Liquid Waste Management

With a capacity of 1000 L, the Effluent treatment plant (ETP) installed at the hospital of IIT Guwahati campus consists of anaerobic digester, flocculate cum clarifier and a filtration process to aid tertiary treatment. The performance of the plant is evaluated periodically by sending treated samples to reputed pollution testing units and laboratories to ensure that the treated effluent is much lower than the maximum specification limit set for various parameters by the Pollution Control Board of Assam.

Campus Greenery

IIT Guwahati boasts of a green cover of nearly sixty percent of its total area. The cleanliness and beautification of entire campus is maintained through outsourced horticultural agency under the supervision of expert engineers.

Adopted Villages:

IIT Guwahati adopted seven villages as part of Swachh Bharat Abhiyan and other social initiative. The villages are Rudreswar, Sisugram, Lathia Bagicha, Ghoramara, Moriya Patty, Cutting Pahar and Amtola.

Intervention Undertaken in the Villages:

Cleanliness drive and awareness on Swachhata mission are carried out by the student and employee volunteers in and around the surrounding villages of IIT Guwahati campus periodically. The NSS, volunteers from the Social service club and the Center for Environment at IIT Guwahati have performed cleanliness, post-flood hygiene drives involving primary healthcare workers and educated the local populace of the adopted villages on several aspects related to cleanliness and hygiene. Awareness programmes on cleanliness and health, degradable and non – biodegradable wastes were also periodically organized.

Tree plantation programs are organized by the IITG community involving children from nearby villages. These programs are held on occasion of Independence Day, Republic Day and World Environment day etc. when dignitaries visit the campus. Plantation drives are also organized during various conferences and symposia. Visiting dignitaries are presented plant saplings instead of flower bouquet. Maintenance of the saplings is a part of the routine gardening activities.

A post-flood relief cleaning and essential commodities distribution camp was organized by the students of IIT Guwahati in the Khulagaon village of Morigaon district on 25th August, 2019. The village was submerged in water during the recent floods. This camp was an initiative of the Social Service Club of Students Welfare Board, IIT Guwahati. The volunteers visited rooms for the fund collection from students residing in the hostels of IIT Guwahati. An amount of 1.5 lakhs was collected from the students after a nine-day fund collection drive. The money collected was used to buy commodities such as solar lamps, blankets, mosquito nets, sanitary pads, disinfectants etc. to control the after-effects of the floods that cause increase in mosquitoes and germs, power cuts and shortage of other essential commodities. Furthermore, a post-flood clean-up activity was undertaken in the village and a large quantity of clothes was donated to the flood victims. About 251 families comprising about a thousand people were benefitted by the relief camp.

Employees of IIT Guwahati have also taken the responsibility of the Sishugram area for its hygiene, education and infrastructure development. Voluntary contributions were also collected on monthly basis from the willing donors at IIT Guwahati campus. Till date, an amount of approximately twenty lakhs was collected and majority of the amount has been used in the infrastructure development of the area including building of toilets.

Outcomes

- The hostels have spacious single room accommodation and have all basic and modern amenities like food mess, canteen, lounges, recreation room, etc
- Toilets and washrooms of all the hostels are equipped with modern fittings and are friendly for specially abled students with 24 hours supply of cold and hot water and round the clock cleaning services
- Installation of roof top solar photo voltaic panels with a capacity of 940.74 KW power
- Organization of awareness programmes on cleanliness and health, degradable and non – biodegradable wastes as part of Swachh Bharat Abhiyan
- Improvement in overall hygiene parameters and better social responsibility for the upkeep of surroundings and neighbourhood
- A post-flood relief cleaning and essential commodities distribution camp was organized by the students of IIT Guwahati in the Khulagaon village of Morigaon district on 25th August, 2019
- Tree plantation programs are organized by the IITG community involving children from nearby villages
- IIT Guwahati boasts of a green cover of nearly sixty percent of its total area

Institute of Management Kozhikode Kozhikode Kerala

The Indian Institute of Management Kozhikode (IIM Kozhikode or IIMK) is an autonomous business school located in Calicut (Kozhikode), Kerala. The institute, set up in 1996 by the Government of India in collaboration with the State Government of Kerala, is one of the 20 Indian Institutes of Management (IIMs). It was the fifth IIM to be established

The institute conducts a full range of academic activities in the field of management education covering research, teaching, and training, consulting and intellectual infrastructure development. The institute emphasises development of analytical skills and a focus on global and cross-cultural issues with a balance between business demands and social concern.

Student Strength	**902**
Faculty Strength	**76**

Residential Facilities

The Campus of Indian Institute of Management Kozhikode (IIMK) has 17 Students' hostels, comprising 9 hostel blocks having a total of 378 single-occupancy rooms with common toilets.8 hostel blocks having 154 double-occupancy rooms with attached toilets. The toilets are of modern design and have been provided with the best quality plumbing fittings and fixtures. Water saving mechanisms have been implemented by way of water flow and pressure control valves fitted to the water supply distribution pipelines to the various campus buildings.

The Campus has been built keeping in mind an environment-friendly, hygienic and sustainable water management strategy combining both water preservation and soil conservation measures**.** Harvested rainwater stored in the Campus is utilized, after due treatment by means of state-of-the-art Water Treatment Plant (WTP) facility**,** for meeting the drinking/potable water supply requirements of IIMK Campus.

Solid and Liquid Waste Management

The liquid waste (i.e. sewage/waste water) discharged from the campus buildings are treated by state-of-the-art Sewage Treatment Plant (STP) facility**.**

The liquid waste management implemented in the Campus involves guiding of sewage/wastewater from the campus buildings to the STP through well connected piping network. At the STP facility, the sewage passes through the screening chamber and is stored in equalization/ collection tank for specific period for carrying out aerobic microbial activity. Settled biological sludge (obtained after aerobic microbial activity) is subsequently pumped to sludge holding tank and drying beds for disposal. Dried sludge is being used as manure for plants. The treated effluent is disinfected prior to utilizing for horticulture irrigation and toilet flushing purposes.

For effective waste disposal, waste bins have been placed at various places in the Institute. Green Bins (for Organic Waste), Yellow Bins (for Dry Waste: *Non Biodegradable/Non Compostable Waste*), Red Bins (for E Waste and Dangerous Items) are placed in each blocks and hostels. For recycling of waste disposed, a Waste Management Facility has been established in the campus and it consists of

a Sorting, Segregation and Recycling Shed, Composting Shed and an Incinerator Unit. Sorting, Segregation and Recycling Shed has a sorting table in which the waste received from the campus is sorted out. Compostable waste is sent to the composting shed and fed into the Automatic Waste Convertor. The green incinerator has been installed for disposing that waste which can neither be disposed through the Composting shed nor can be recycled. Sanitary waste from households, medical waste and foul waste is disposed through this incinerator.

Hostel Kitchen Facilities

IIM Kozhikode caters to around 900 students including foreign students and operates three student's mess and two staff mess. All the kitchens are well equipped with modernized cooking ranges, standard utensils, steamers, pulverizers, solar water heaters, centralized LPG bank, proper and concealed drainage system and centralized kitchen hood (chimney).

The centralized Chimney placed above all the cooking range sucks all hot air and the fresh air duct provides fresh air. This system maintains a moderate temperature in the kitchen which not only prevents the possibility of getting food contaminated due to hot atmosphere but also gives a comfortable zone to the chefs and commis to deliver their best efforts and to maintain the personal hygiene.

The fully furnished dining hall with centralized AC is designed to provide good space and ambience and efforts are made to keep the mess eco-friendly. No plastic products are used to serve and dine in the mess. Food is kept in bain-marie to serve hot. Dining hall is provisioned with water filters, water coolers with hot cold facility and sterilized crockery and cutleries.

All the food handlers are under the surveillance of qualified catering supervisors to ensure the high standard of personnel hygiene and sanitation. They have been issued with occupational clothing and safety gadgets according to their nature of works. All the messes are provided with separate waste collection bins to segregate bio and degradable garbage and adequate pest control machines placed at desired height and periodic pest control management is also practised.






Campus Greenery

Spread over about 112.5 acres of land, the Indian Institute of Management Kozhikode, is situated on two hillocks in the Kunnamangalam area of ancient city of Kozhikode in Kerala. The picturesque and oxy-rich campus has 70 % of green cover. With the natural flora and fauna preserved, the Institute has well maintained lawns, and a wide variety of ornamental plants and flowers. The lawns and plants are maintained by sprinklers. The Institute has a dedicated horticulture staff with a Horticulture Consultant for maintaining the green cover, lawns and plants. A Campus Green Initiative

Committee (CGIC) is in place to oversee the development and maintenance of green cover of the Institute.

Solar Power

Solar Water Heating units: The Institute has solar water heaters in 4 Hostel Blocks (Hostel M, N, P and Q) with 2500 Ltr capacity units, which are connected to water heaters in students' rooms so that the preheated water saves Electricity usage. Students Mess in Phase-V area-1200 Ltr Unit, J Mess and H Mess- 500 Ltr each are used for the kitchen and plate washing. Apartments in Phase-V area have 4 Nos of 2000 Ltr units for the apartments.

Solar Electricity Plant: The Solar Electricity is used for providing power for the 29Nosof 9 W LED lights in the steps from Admin Block to Residential Hill. The Phase-V Mess has also been provided with Solar Water heater facility.

Adopted Village: As part of Social Development Projects (SDP), IIM Kozhikode Students community have carried out 15 projects in the area of sanitation during the last four years in collaboration with third party organizations such as District Shujitwa Mission, Kozhikode, Kunnamangalam GramaPanchayath, Koodaranji GramaPanchayath, NiravuVengeri and Markaz, Karanthur.

Benefited Families: Over 5000 families in different Municipalities, Educational Institutions and Organizations covered under SDP

Intervention Undertaken in the Area: The IIMK students have undertaken four projects to improve the sanitation inside the campus and also in the surrounding localities. The project is basically an extension to the Smart Campus Initiative which aims at making the surroundings of the campus clean. The Smart Campus Project was to not only be limited to hostels and academic block but also

reach out to faculty residences and the vicinity of the college with the help of Secretary and other members of the Kunnamangalam Panchayat.

A cleanliness drive was undertaken in Kunnamanglam village. Shopkeepers in Kunnamangalam as well as residents of the area were conveyed the best practices of waste disposal. The people were instructed to throw dry and wet waste in the bins placed in the area and separate out organic waste like tree leaves and branches to the side of the road to be later cleared by waste managers.

Outcomes

- The toilets are of modern design and have been provided with the best quality plumbing fittings and fixtures.
- Water saving mechanisms have been implemented by way of water flow and pressure control valves fitted to the water supply distribution pipelines to the various campus buildings
- Harvested rainwater stored in the campus is utilized, after due treatment by means of state-of-the-art Water Treatment Plant (WTP) facility, for meeting the drinking/potable water supply requirements of IIMK campus
- For effective waste disposal, waste bins have been placed at various places in the Institute
- IIM Kozhikode caters to around 900 students including foreign students and operates three student's mess and two staff mess
- All the kitchens are well equipped with modernized cooking ranges, standard utensils, steamers, pulverizers, solar water heaters, centralized LPG bank, proper and concealed drainage system and centralized kitchen hood (chimney).
- No plastic products are used to serve and dine in the mess.
- All the food handlers are under the surveillance of qualified catering supervisors to ensure the high standard of personnel hygiene and sanitation
- The picturesque and oxy-rich campus has 70 % of green cover
- The Institute has solar water heaters in 4 Hostel Blocks (Hostel M, N, P and Q) with 2500 Ltr capacity units, which are connected to water heaters in students rooms so that the preheated water saves Electricity usage
- A cleanliness drive was undertaken in Kunnamanglam village.shopkeepers in Kunnamangalam as well as residents of the area were conveyed the best practices of waste disposal.

Indian Institute of Technology Madras Chennai Tamil Nadu

Indian Institute of Technology, Madras was established in the year 1959 and was recognized as an Institute of National Importance by the Government of India in the year 1961. The lush green campus of IIT Madras, spread over 248 acres is located in chennai, capital city of Tamil Nadu.

Student Strength	**10,000**
Faculty Strength	**594**
Non- Teaching Staff	**677**

Residential Facilities

There are around 8420 students residing in 21 hostels of the Institute, which are well equipped with adequate number of toilets for male, females and even disabled students and have facilities like 24 hours water supply, treated water supply for flushing, hot water supply from solar powered water heaters, water efficient fittings, napkin incinerators in ladies hostels etc. The toilets are maintained by dedicated housekeeping team equipped with GPS tracking.

Solid Waste Management

The solid waste management at the Institute is carried out with well-defined strategic 4R process of Refuse, Reduce, Reuse and Recycle. The solid waste management involves the following process. Every household has been provided with triple dust bins to segregate bio-degradable and inorganic waste and exclusive dust bin for sanitary waste disposal. The garbage generated is collected daily on

door to door basis and transported to the segregation yard. The garbage is further segregated for re-use and recycle of the waste. IITM has the vermin-compost facility and a biogas plant. IITM campus uses only the compost generated in-house for the horticulture purpose. The biogas is used in the messes for cooking. Hazardous, electronic and radioactive wastes are managed as per the Government regulations.



Liquid Waste Management

IITM has a fully automated centralized 4 MLD STP (SBR technology +UF + Ozonation) to treat 100% of the sewage generated. The treated sewage is recycled for flushing, gardening and the lake re-charging. The surplus treated sewage is being sold to the nearby research park and partly used for HVAC requirements. This STP ensures water security for the campus. By the rainwater harvesting method, all runoff water is collected in the IITM lake. The collected water in the lake is used for domestic water supply and recharging the ground water.

Kitchen Facilities

IITM has modern centralized kitchen and dining facilities at the hostel zone. The infrastructure has modern kitchen fitted with exhaust system, gas supply lines, bio-gas plant, kitchen waste treatment facilities etc. Recently, FSSAI has issued certificates for the eateries located on the campus.

Campus Greenery

The campus is enriched with wide a variety of flora and fauna. 75% of the IITM land is covered with green and water body.

Solar Power

The terraces of all academic and hostel building have been covered with solar panels. The current installed capacity of the grid connected solar energy is 3.20 MW.

Adopted Villages

IITM has adopted five villages in Tamil Nadu in Vichoor, Singaperumalkoil in Kancheepuram district and Nagapattinam for the community outreach Village Development programme. After an in-depth survey of the area and understanding the requirements of the local population, IITM has come up with effective solutions in the area of sanitation including construction of toilets, waste management, drinking water, rejuvenation of ponds, rain water harvesting and solar lighting and even skill development for local population.

Interventions Undertaken in the Villages:

The Institute has successfully implemented sustainable wastewater and solid waste management for healthy and hygienic villages. This was achieved by collection, segregation, processing and reuse of solid waste, rain water harvesting, and collection of septic tank effluents and wastewater from households through small bore systems and managed it with constructed wetlands. The project demonstrates resource recovery from organic waste through composting and from inorganic waste through reuse and recycling. The project involved participation of local manpower who were trained for operation and maintenance.

Outcomes

- Hostels are well-equipped with facilities like 24 hours water supply, treated water supply for flushing, hot water supply from solar powered water heaters, water efficient fittings, napkin incinerators in ladies' hostels etc.
- Implementation of the 4R process of refuse, reduce, reuse and recycle for solid waste management
- Hazardous, electronic and radioactive wastes are managed as per the Government regulations
- Provision of modern kitchen fitted with exhaust system, gas supply lines, bio-gas plant, kitchen waste treatment facilities etc.
- The current installed capacity of the grid connected solar energy is 3.20 MW
- Installation of grid connected solar power plant with a capacity of 3.20 MW
- Implementation of rainwater harvesting method for water conservation
- Greenery is enriched with wide a variety of flora and fauna
- The Swachhta activities included solid waste management, rain water harvesting, and reutilization of treated effluents and wastewater with constructed wetlands

Indian Institute of Technology Tirupati Chittoor Andhra Pradesh

Indian Institute of Technology Tirupati is the first among the 3rd phase of IITs, announced in 2014, to have its foundation stone laid in March 2015. It started functioning with the support of its mentoring institute, IIT Madras from the academic year of 2015-16. The academic program was launched in August 2015 by admitting students in the B.Tech programme in the fields of Civil Engineering, Computer Science & Engineering, Electrical Engineering and Mechanical Engineering. The curriculum has emphasis on theoretical knowledge and practice-oriented laboratories. Courses are planned to nurture innovation, creativity, quality, teamwork, communication skills, ethics and societal interaction. The Government of Andhra Pradesh is nurturing Tirupati as knowledge hub of the State.

Residential Facilities

Glass fiber reinforced gypsum panels (GFRG technology) has been used for construction of buildings and hostels, each having four floors. Gypsum is the waste product from chemical and fertilizer industries. The use of tiles was eliminated and replaced by joint-less polished concrete flooring in the labs. There are total 745 students staying in 5 hostels. Each hostel has 20 toilets. Each floor has one toilet for physically challenged person. Water is supplied 24x7 throughout the campus.

Campus Greenery

The total area of the transit campus is 36 acres and the green cover percentage is more than 50 % which is nearly 20 acres of the total area. The ecological study of 530 acres has been commissioned

and all flora, fauna, rivulets and water bodies have been mapped. A master plan for the ecological management has been prepared for protection of these features in the campus.

Hostel Kitchen Facilities

Kitchen flooring is done with kota stone for easy cleaning and maintenance. Proper drain lines are provided in the kitchen area to avoid any water stagnation. The Gas room has separate dedicated pipe line connections. Kitchen is provided with exhaust fans for proper ventilation. Dining hall is spacious and can accommodate 400 students at a time. The hall is designed to get 80% natural lightning and ventilation. The conventional fans are replaced with HVLS fans to reduce noise and power consumption.

Solid and Liquid Waste Management

Sewage and waste water is treated in sewage treatment plant with SBR technology of fifty thousand capacity and the treated water is used for flushing in toilets, gardening and landscaping. Dual flushing system is installed in all toilets to reduce water consumption. Food waste is monitored everyday. Kitchen solid waste is converted to organic compost by using zero energy organic waste composter and the resultant product is used for gardening and landscaping purpose.

Solar Power

A roof top solar plant has been installed on Lab-1 and LAB-2 that generates power of 216 Kwp which is self-sufficient for the campus and excess power is exported to APSPDCL. Roof top solar water heaters are provided for all the hostel buildings. The class rooms and other buildings were fitted with 48 V DC fitting to save 30% energy.

Adopted Villages

The institute has adopted 5 villages which are within the 4 kms. radius from the campus. The villages adopted are Jangalpalli, Chindepalli, Panguru, Pagali and Rajulapalem in Yerpedu mandal, Chitoor district, Andhra Pradesh.

Families Benefited: 600

Intervention Undertaken in the Villages:

College student volunteers visited the villages and cleaned up the streets with the help of villagers. Unwanted shrubs, weeds and debris were removed and planted with trees along the roadside. Plant guards were placed to protect the tree saplings. The plant guards were prepared from packing materials received along with the laboratory equipment. Volunteers also conducted social awareness campaign on general cleanliness, health and on other government initiatives such as pulse polio etc.

Outcomes

- Buildings and hostels constructed with glass fiber reinforced gypsum panels
- The ecological study of 530 acres has been commissioned and mapping of all flora, fauna, rivulets and water bodies
- Kitchen flooring done with kota stone for easy cleaning and maintenance
- Use of HVLS fans to reduce noise and power consumption
- Kitchen solid waste converted to organic compost by using zero energy organic waste composter and the resultant product used for gardening and landscaping purpose
- Unwanted shrubs, weeds and debris were removed and planted with trees along the roadside in the villages

ITM University Gwalior Madhya Pradesh

The University imparts quality higher education with emphasis on technology application and innovation.

Student Strength	4764
Faculty Strength	503

Residential Facilities

The University has eight hostels, 24 buildings and 484 toilets in the campus. The toilets in the hostels and other blocks have bowls fitted with water flushing device that are connected to a drain system. The toilets are sanitized three times in a day and kept neat and clean by spraying necessary ceiling methods. There are separate toilets to suit men, women and differently-abled people. All the toilets have tiled flooring and have exhaust fans and air vents in place. The water discharged to the toilets is designed to achieve proper water pressure management. The water and waste from different hostels and blocks is treated at a distant sewage treatment plant.

All buildings in the campus have water purifiers and RO systems. The water quality is checked frequently. All the buildings have rainwater harvesting systems in place to augment supply of potable water and to help maintain a green campus.

Solid Waste Management

ITM University has introduced effective solid and liquid waste management in the campus. The waste is segregated at source into recyclable waste and organic waste. There are dual set of bins placed all over the campus, one for dry waste and the other for wet waste. The university has solid and waste management plants to dispose the solid and liquid waste collected from various sources.

Hostel Kitchen Facilities

The University has separate hostels for girls and boys with well furnished modern kitchen and spacious dining area. Emphasis has been laid on hygiene and cleanliness for healthy living. The kitchen is furnished with modern amenities. The staff in the kitchen ensures that the provisions meet the requirements of food safety. The kitchen is equipped with stainless steel steam boilers for food, gas burners, grinders, idly and dosa palate, etc.

Campus Greenery

The campus has both indigenous and exotic plants that keep the biodiversity intact and helps in maintaining eco-friendly ambience in the campus. The University takes up a tree plantation drive annually under which nearly 2000 new saplings are planted for campus beautification. The University also has created vertical greenery in the campus by planting creepers on all the buildings. The University also aids and assists the organisations working in support of the cause of environment conservation.

Solar Power

The university has installed solar power plants on the rooftops of all campus buildings.

Adpoted Villages: Sikroda, Adupurajagir, Ramaua, Lakhnauti-khurd, Rora, Dongarpur and Sirol,Gwalior Tehsil

Interventions Undertaken in the Villages:

The University has taken up several plans in village development, facility upgradation and curriculum development. At the core of the concept of Swachhata is access to sanitation facilities, arrangements of system of solid and liquid waste disposal and access to safe and adequate water. Villagers were made aware of the benefits of growing trees and massive sapling plantation drives were undertaken.

The University runs a MPCST funded project which focuses on Indoor air pollutants associated with combustion of solid fuels in households of rural areas. Under this project rural women were made aware of the benefits of clean fuel use in daily cooking practices and proper ventilation systems in their houses to minimize the effect of indoor air pollution. The university also helped the rural women to improve the cooking stove and modify their kitchens.

How the University changed the face of adopted villages

The university has conducted awareness programs for the villages regarding the use of private toilets and the ill effects that arise due to the practice of open defecation. After the intervention, the public health of the villagers has improved tremendously due to the adaption of the best practices. The mosquito menace has also come down. The university volunteers have planted trees on the side road. The roads now look clean.

Outcomes

- All eight hostels and various blocks of the University have toilets with water flushing devices and are connected to a drain
- Biodegradable waste is processed using technology via vermin-composting
- There are separate toilets for men and women in hostels and various blocks around the campus
- Toilets are specially designed for disabled persons in all hostels and blocks
- All the sewage generated in the campus is treated in such a way that it can be reused for secondary purposes like gardening, construction, bus washing etc.
- Nearly 80% of treated water is used for the secondary purposes and remaining 20% of it is used for flushing and cleaning of drainage systems in the campus
- Water points are located near each hostel and block. There are water purifiers in various buildings
- All the buildings have rainwater harvesting system
- Wet and dry wastes are collected on daily basis
- Hostel kitchen is equipped with modern cooking equipment
- The University takes up annually a tree plantation drive under which nearly 2000 new saplings are planted for campus beautification
- Solar power systems are installed on various buildings to meet energy requirements
- In adopted village awareness of villagers was raised with regard to sanitation facilities, arrangement of systems for access to safe and adequate water.
- Polythene and single use plastic is completely banned in ITM University campus
- Incinerator is placed in University to dispose biomedical waste
- In adopted village, the public health of the villagers has improved tremendously due to the adaption of the best practices about which the awareness was created by ITM University
- Rural women were made aware of the use of clean fuel for daily cooking practices
- The university helped them to improve the ventilation systems and to minimize the effects of household air pollution
- The university also helped the rural women to improve the cooking stove and modify their kitchens

Jayoti Vidyapeeth Women's University
Jharna Rajasthan

Jayoti Vidyapeeth Women's University is the first state private public women's university in India. The University offers more than 156 academic programs under various disciplines.

Student Strength	**2950**
Staff Strength	**639**

Residential Facilities

The University has 6 hostel buildings which have 563 ventilated, modern and hygienic Indo -Western toilets, with 24 hours water supply and substantial energy.

Solid and Liquid Waste Management

There are total 13 different kinds of waste products in which 10 kinds of wastes are being reused through recycle concept under University Startup **"Punar Janam (Ready to serve again)**". The other

3 waste products such as biomedical waste are collected by Govt. Agency. Sanitary waste is disposed off in an eco – friendly manner and non-decomposable waste was auctioned to a private agency.

Sewerage waste is treated at the University Sewerage Treatment and reused for plantation that is based on the concept of "Patra Daan Karen" Plant (STP) and Patra Paudha Prapt Karen" for the treatment of solid and liquid sewerage. The resultant treated water is used for irrigation and landscaping of the campus and rest of the waste is used in manure bank. Used paper is recycled and transformed into paper. Animal waste or cow urine is used for preparation of medicines. The unused clothes are reused for making eco- friendly cloth bags and distributed. Waste food is reused for bio-gas and making of manure. Electronics waste is repaired and used by the needy school children. Used books and foot wear are donated to the needy. Glassware is utilized by the students in handicrafts for making decorative items. Organic manure is made from agricultural waste.



Hostel Kitchen Facilities

The hostel kitchen consists of a dining hall and a centralized mess with a hygienic cooking area provided with automated boilers to prepare food on steam. Garbage bins are installed in the mess for recycling of raw and cooked food waste. Cleanliness is maintained by frequent cleaning of the mess.


Campus Greenery

80% of the campus area is covered with greenery which includes grass, trees, herbal garden and green house. The University has included Environmental Studies (EVS) as a compulsory course from 2008 to enhance green practices. Students are given practical exposure to green practices. Other green initiatives include use of bicycles, plastic free campus, paperless office, mobile free campus, use of solar energy in road lights and water heaters at hostel and centralized laundry. University has lush green campus composing of ornamental plants (champa, ashok, gulmohar), shade trees (Banyan, peepal, neem), medicinal plants (rudraksh, guggul, neem), creepers (Rangoon, morning glory, giloy), fruits plants (cheeku, ber, jamun etc.), herbal garden and mini orchards.

Solar Power

The University is using solar energy for lights and water heaters in the campus.

Rainwater Harvesting

The University has well-defined rain water harvesting system. Water recharging is done by using small pipes that are placed around the campus. These pipes were prepared from wastes generated by the University. The University has also planned to distribute such pipes in nearby villages for the same purpose.

Adopted Villages:

The University has adopted Jharna, Devla, Keshrisinghpura, Kapidyawas and Kotjewar in the district of Jaipur. Benefitted Families: The number of people and household families covered and benefitted by the effort are 1293.

Intervention Undertaken in the Villages

The University has conducted Community Development Activities (CDA) since its inception in year 2008 as a compulsory course curriculum under University Mission Course. All students have to participate in these activities which are in the radius of 20 Kms.

Following Community Development Activities were conducted by the University in the adopted villages:

Mentorship Programs were organized on health, education and agriculture. Awareness Programs were conducted at the Village Development Centers (VDCs) and University AYUSH Private Health Center (UA-PHCs). Village Development Activity (VDA) and Skill enhancement activities for school children.

Under mentorship program, students and teachers were assigned tasks as mentors for specific homes in villages and provided consultancy to the villagers in their respective field as per the following:

Agriculture mentorship programme were organized in the area of Organic farming, Agro Processing, Agri mentorship, integrated farming system and Adoption of Barren Land for Cultivation.

Education mentorship programme included Awareness of Government and University Schemes, Education promotion schemes and scholarships. Uchcha Shiksha Namankan Program, Dropout Prevention Yojana and Mera pura sakshar gaon Yojna and Skill Identification and Training Program.

Health mentorship programme included routine health check up and free medical consultation and immediate care for minor problems. Health awareness, Prevention and Promotion services Child care and Old age care and Primary maternity care etc.

Dietary advice and hygiene information: The University conducted “AYUSH Health Home Care” Information sessions, Free/Subsidiary medicine distribution and Basic Diagnostic Investigations “University Nagrik Swasthya Card” Information and University “Vridhavastha Swasthya Card” information and Referrals to University Hospital.

Earlier the villages had infertile soil due to salty water, no alternate irrigation facilities, and were unaware of latest farming techniques and livestock health. They were also unaware about healthy and hygienic living, vaccination, health policies and prevention from seasonal diseases, unaware of government scholarship schemes and education policies. There was high student dropout ratio at basic and higher education level.

As a result of University efforts through **"Community development activities",** there has been a considerable increase in the awareness and implementation of modern agriculture techniques like organic farming and better livestock health. Adopted villagers are now more aware of health, hygiene and vaccination practices. Dropout ratio is decreased and villagers are utilizing the education and scholarship schemes of university for girl child education. They are now interested in professional and conventional courses.

In the past 11 years, more than 10000 candidates have completed the **"University Mission Course"** successfully.






Outcomes

- The University has 6 hostel buildings which have 563 ventilated, modern and hygienic Indo - Western toilets, with 24 hours water supply
- There are total 13 different kinds of waste products in which 10 kinds of wastes are being reused through recycle concept under University Startup **"Punar Janam (Ready to serve again)**"
- Sewerage waste is treated at the University Sewerage Treatment and reused for plantation that is based on the concept of "Patra Daan Karen"
- Used paper is recycled and transformed into paper.
- unused clothes are reused for making eco- friendly cloth bags
- Garbage bins are installed in the mess for recycling of raw and cooked food waste
- 80% of the campus area is covered with greenery
- Green initiatives include use of bicycles, plastic free campus, paperless office, mobile free campus, use of solar energy in road lights and water heaters at hostel and centralized laundry
- Water recharging is done by using small pipes that are placed around the campus.
- The University has conducted Community Development Activities (CDA) since its inception in year 2008 as a compulsory course curriculum under University Mission Course
- The University has undertaken mentorship program in the area of agriculture, education, health and hygiene
- As a result of University efforts through **"Community development activities",** there has been a considerable increase in the awareness and implementation of modern agriculture techniques like organic farming and better livestock health

Karpagam Academy of Higher Education (Deemed to be University) Coimbatore Tamil Nadu

Karpagam Academy of Higher Education (KAHE), Coimbatore's assets are its contemporary infrastructure, modern teaching methodologies, career-oriented training, excellent placements and the finest faculty. Besides technical expertise, KAHE has made a mark for itself since its inception by developing communication and soft skills, ensuring enlightening knowledge, extending holistic education and creating a strong value system. Today, with strength of 6448 students and over 635 teaching and non-teaching staff members the KAHE is setting new benchmarks in the educational sphere.

Hostel Kitchen and Toilet Facilities

KAHE has six hostels for men and three ladies hostel with four sharing rooms, accommodating 2038 students in the campus. The hostel mess contains hygienic kitchen equipped with modern appliances and exhaust chimneys and dining halls supported by housekeeping staff. Well maintained toilets in the ratio of one toilet for six students were constructed. More than 50 water dispensers serve drinking water 24 X 7 hours to the campus. The washrooms on each floor have modern fittings with 24 X 7 supply of water and electricity and with 100% standby.

Solid and Liquid Waste Management

The campus has a well-established waste management system. The liquid waste from bathing and kitchen is treated with an active STP unit with a total capacity of 1 lakh liters. This is facilitated with

sand/charcoal biofilters which are used for gardening purpose. All the runoff rainwater is diverted to water harvesting recharging pits present in each block. Solid waste is segregated as biodegradable and non-biodegradable wastes respectively. The ladies hostel is maintained in a hygienic condition and has an incinerator for sanitary napkins.

Solar Power and Sewage Treatment Plant (STP)

The institution has roof top solar power plant with power capacity of 100 KW developed as part of the institute's greening initiatives to reduce carbon footprint.

Campus Greenery

The institution has more than 60% green cover with well maintained lawns, diverse native species of plants and trees, decorative plants and rare medicinal herbs. The greenery was regularly maintained by gardeners ensures a comforting greenery aided by water sprinklers.

Village Adopted

The institution has adopted five villages viz., Seerapalayam, Arisipalayam, Nachipalayam, Malumichampatti, Othkkal Mandapam in Coimbatore district.

Outcomes

- Institution has its own water purification system along with water purifiers
- For differentially abled students, there are specially designed toilet, ramps, railings at various places for movement and access to all places
- Institutional Social Responsiblity (ISR) and village development activities are carried out in the adopted villages
- Green cover is more than 60% of its total area
- Awareness program on cleanliness and health carried out from time to time
- Presence of water efficient fittings and napkin incinerators in ladies hostels
- Installation of water sprinklers for efficient watering of plants
- All the hostels and canteens are certified with FSSAI
- The institution has made 100% Open Defecation Free (ODF) in the adopted villages
- Class rooms are equipped with LED lights to save energy
- Campaigns for ban on use of plastics
- Medical and dental camps organized in the adopted villages

Koneru Lakshmaiah Education Foundation
Guntur Andhra Pradesh

Residential Facilities
There are built in sensors to detect particulate matter stacked in the pipeline and ensure uninterrupted flow of water. The toilets are arranged with an in built flush tank of 5 ltrs capacity embedded in the wall which saves upto 15 litres of water per flush.

Solid Waste Management
The collected waste is segregated into recyclable and organic waste. High value recyclable waste is sent to recyclers and organic waste is composted in a natural way. Bio degrading organic waste turns into a valuable organic fertilizer. Use of plastic is prohibited on campus. The sanitary waste and bio medical waste is given to a certified agency for incineration.
A STP with a capacity of 600KLD treats the liquid waste and continually operates 16 hrs/day separating water from the sludge. After the removal of suspended solids, organic matter and the filtered water is stored SF feed tank. This water is used for flushing and gardening.
Special coloured dustbins are used to collect bio degradable waste, recyclable paper waste and biological waste separately.

Hostel Kitchen Facilities
Cooking and processing is done in a clean and sterile environment. Automatic kitchen equipments such as milk and rice steamers etc have been installed. They are operated by experienced technicians and utmost priority is given for maintaining hygienic.

Campus Greenery
Bio-diversity Park is maintained which habitats variety of animals like rabbits, cocks, ducks, parrots and monkeys etc.

Intervention Undertaken in Villages

- Identified 5 major problems related to water, energy, local resources, community actions and sanitation
- The local people are educated through gram sabha`s connecting government schemes
- 80% of the problems were solved in adopted villages in 2 years of guidance
- Expecting 100% results in adopted villages in 2 years
- Among 100 adopted 5 villages are selected for Adarsh Gramam Application

Benefited Families: More than 1500 families were benefited

Awareness Programs of KLEF SVR in the villages

a) President sir Visit
b) Grama sabhas
c) Doctor's Visit made on epidemic in the villages
d) Committee Formation in the village for further follow up in the village
e) Parinama conducted to show the transformation in the villages
f) Students participation in the villages
g) Medical camp
h) Foreigners visit to the villages
i) MLA visit to the villages to see the transformation and support the project

j) Awareness on Malnutrition
k) Awareness on Tailoring to the women

Awareness on Compost making to the farmers, awareness on Compost making to the farmers By KVK, LAM , Guntur, awareness on Compost making to the farmers By KVK Garikapadu.

Painting in the villages and plantation in the villages are some of the activities of the University.

Installation of 500 lts water Tank at Seetarampuram Thanda Primary school

DRDA officials inspecting Nadep compost pit at Theegarajupalli in Sangem mandal in Warangal Rural district

500 Lts triple Layer Water Tank

Connecting water tank with existing water pump

Outcomes

- The collected waste is segregated into recyclable and organic waste.
- A STP with a capacity of 600KLD treats the liquid waste and continually operates 16 hrs/day separating water from the sludge
- There are built in sensors to detect particulate matter stacked in the pipeline and ensure uninterrupted flow of water.
- Special coloured dustbins are used to collect bio degradable waste, recyclable paper waste and biological waste separately
- Cooking and processing is done in a clean and sterile environment.
- 5 major problems related to water, energy, local resources, community actions and sanitation have been identified in the villages
- Bio-diversity Park is maintained which habitats variety of animals

KLE Academy of Higher Education and Research (Deemed –to-be University), Belgavi, Karnataka

K.L.E. Academy of Higher Education and Research, Belagavi seeks to be a centre of excellence in medical education, research and health care services at the national and international level. It comprises of 8 academic and administration buildings.

Student Strength	**5633**
Faculty Strength	**725**

Residential Facilities

There are 14 hostels, six for boys and eight for girls. The total number of students residing in the hostel are 2433.The hostels cater to the needs of medical, dental, pharmacy, physiotherapy and allied under-graduates, interns and post-graduate students. There are 1213 toilets in the ratio of 1:2.The hostels are well-maintained and provided with 24 hours water and electricity with generator back-up facility. More than 50% of the rooms have attached bathroom facility and both western and Indian system toilets that are functional along with 2 bio-toilets. Toilets have good flooring and are equipped with exhaust and air vents and regularly cleaned twice a day. Specially equipped toilets are present for physically challenged people. Water conservation is done by water taps fitted with 6 filters. Aqua-guards are provided in all the hostels for supplying safe drinking water. The water samples are tested for quality every fortnight by the Department of Microbiology.




Solid and Liquid Waste Management

Two sewage treatment plants have been installed in the campus. Liquid waste from the laboratories is treated in liquid disinfection units and is utilized for gardening and other washing purposes. Solid waste is segregated into dry and wet waste. Dry solid waste such as plastic bottles is shredded in pet shredding unit in the campus. Biomedical waste is sent for incineration and the steam generated by this unit is utilized for heating the water used in the hospital. Wet waste is collected in the two vermin compost units in the campus.

The institute has an effluent treatment and recycling plant. The sewage treatment plant is of 2000m3/day capacity. The sewage from the hospital is treated by the activated sludge process using the extended aeration system. Treated sewage after chlorination is pumped for gardening in hospital complex and in the university campus covering an area of 15 acres.

Solar Power

A solar power plant with a capacity of 180 MW has been installed at Jamkhandi, Bagalkot with a power output of 8 to 10 MW per month. Nearly 977 solar panels have been installed that saves 100 to 150 units per panel.

Heat recovery unit is installed in the incinerator which has a temperature of 1000 C. Hot water is used as boiler feed water. This saves 6000 litres of diesel every month. Steam generated is used for cooking and laundry.

Hostel Kitchen Facility

The hostel kitchens have the latest equipment for cooking. The kitchens are fitted with a chimney for a smoke free environment. Equipments like Spoon sterilizer Dough kneader, Pulverizer, Potato peeler, wet and dry grinders are utilized to reduce direct hand contact. Steam is used to cook rice, momos and idlis. Dishwasher is installed to clean the utensils. All the staff members maintain high level of hygiene and cleanliness. Staff members compulsorily use caps, aprons and gloves to avoid direct contact with food. Bain Marie is used to keep the food warm and hygienic. Display signs are posted in the cooking and dining area to create awareness of hygiene. Left-over food is sent to vermin-compost unit to prepare manure.

Campus Greenery

The tree census indicates average flora of 30% on the campus, 96 eucalyptus and acacia have been replaced with 350 fruit trees namely, mango, guava, tamarind etc. Wall gardens have also been developed. Greenery is maintained to achieve optimum lung space in the campus. Even battery vehicles are utilized within the campus by restricting the movement of all other vehicles to control pollution.

Adopted Villages

The institute adopted five villages viz. Bhuaramanhatti, Ukkad, G Hosur, Gugarannatti in Belagavi district. The Swachh Abhiyan activities in all the adopted activities include rain water harvesting of school and anganwadi, IFC activities on personal hygiene, plastic and tobacco hazards was promoted by wall paintings in the villages.

Benefitted Families: The number of people and families covered by the efforts are 4449 and 680 respectively.

Activities Undertaken in the Villages:

Outcomes

- The hostels cater to the needs of medical, dental, pharmacy, physiotherapy and allied under-graduates, interns and post-graduate students
- Specially equipped toilets are present for physically challenged persons
- Provision of aqua-guards in all the hostels for supplying safe drinking water
- Utilization of equipments like spoon sterilizer, dough kneader, pulverizer, potato peeler, wet and dry grinders to reduce direct hand contact and maintain hygienic conditions
- Treatment of liquid waste from the laboratories in liquid disinfection units and is utilized for gardening and other washing purposes
- Greenery is maintained to achieve optimum lung space in the campus
- The Swachh Abhiyan activities included rain water harvesting in schools and anganwadi
- IFC activities on personal hygiene, plastic and tobacco hazards was promoted by wall paintings in the villages

Krishna Institute of Medical Sciences Karad Maharashtra

Krishna Institute of Medical Sciences "Deemed To Be University", Karad is located in Western Maharashtra, India against the background of mountains and valleys. The green, eco-friendly campus is spread over 55.24 acres and is well connected by rail, road & air.

University is accredited by various accrediting agencies for its quality sustenance, enrichment and enhancement in academics and healthcare services.

Student Strength	**2298**
Staff Strength	**2410**

Residential Facilities

There are 12 hostels in the campus. Toilets are modern **(**Indian and western**)** with an average toilet student ratio of 1:3. The toilets have also been fitted with anti slip flooring and wall tiling; grab rails, hazard warning bells. The flush systems use recycled water and push taps to reduce water wastage. The campus also has toilets for the differently abled at appropriate locations.

The university has a central water tank with a capacity of 400,000 liters. There is a fully automated water treatment plant with a capacity of 73 m3/day. The operation theatre, dental college and the laundry have special water softener. Water provided for drinking throughout the campus passes through RO system. The university regularly sends water samples from the end users to govt. approved laboratories.

Solid and Liquid Waste Management

There is a 1,000/- kgs. per day capacity organic waste management plant, which produces about 2500 kgs of manure/month in the campus. The university uses modern equipments like autoclaves & microwaves to disinfect certain inorganic waste. . There are 2 sewage treatment plants with 500 KLD each and an effluent treatment plant of 100 KLD. This recycled water is used in toilet flush, gardening and landscaping.

Kitchen Facilities

The campus has a modular stainless steel setup with exhaust hoods (Chimney) and modern mechanized

kitchen equipments like the dishwasher system. The raw material used for cooking is tested and monitored for quality. The kitchens and food serving areas are FDA registered.

Campus Greenery

37% of the campus has green cover with an in-house department of 40 employees for maintaining the garden. The entire campus green cover has an intricate network of sprinklers and water guns using only grey water. The campus has 2915 trees of 68 different species which are native to this geographic area. The institute also has toxicology and ayurveda garden.

Solar Power

In the campus a 500 KWP on-grid solar photo-voltaic plant has been commissioned, another 400 KWP is under installation.
Central solar water heater and heat pump is used to provide hot water instead of electrical geysers in the campus.
The college has replaced 2200 conventional electrical light sources with LED lights. Automatic Power Factor Control panels have been installed. The college has installed 3 star and above HVAC systems on the campus. They have also installed Variable Refrigerant Volume systems in sync with inverter air conditionings. The terrace area of 8640 sq. meters is covered under rain water harvesting project (ground water recharge type).

Adopted Village: Khubi, Tal Karad, Dist Satara, Maharashtra
Benefitted Families: A total of 337 families (1690 people) have been covered.

Activities Undertaken in the Villages:

- **Public Health Initiative:** The College has organized monthly health check up camps, health checkups in schools, set up an Adolescent Clinic. They have also promoted Maternal Health and immunization. The college has given a RO Water plant for clean drinking water and manure processing bins for Solid Waste disposal for each family.
- **Individual Development:** The College has created awareness about use of toilets, fostering habits for exercise and games, reducing substance abuse; food habits and nutrition aspects
- **Community Development:** The College has conducted skill development programs for Womens' self-help & micro-financing groups, environment protection, vocational and technical training, sensitization for sustainable rural livelihoods and promoting advanced agricultural practices.
- **Behavioural Intervention & Promotion of healthy practices:** The college has also trained the villagers in Yoga and Meditation training and Disaster Management.
- **Social Interventions:** The College has tried to inculcate the values of Human rights, gender equality, female feticide etc.






Outcomes

- Toilets are modern **(**Indian and western**)** with an average toilet student ratio of 1:3
- recycled water and push taps are used to reduce water wastage in the toilets
- Toilets for differently abled people are situated at appropriate locations
- The university has a central water tank with a capacity of 400,000 liters
- There is a fully automated water treatment plant with a capacity of 73 m3/day
- The university regularly sends water samples from the end users to govt. approved laboratories
- There is a 1,000/- kgs. per day capacity organic waste management plant, which produces about 2500 kgs of manure/month in the campus
- There are 2 sewage treatment plants with 500 KLD each and an effluent treatment plant of 100 KLD
- The campus has a modular stainless steel setup with exhaust hoods
- The kitchens and food serving areas are FDA registered
- 37% of the campus has green cover with an in-house department of 40 employees for maintaining the garden
- The institute has toxicology and ayurveda garden
- A 500 KWP on-grid solar photo-voltaic plant has been commissioned in the campus and another 400 KWP is under installation
- The college has replaced 2200 conventional electrical light sources with LED lights
- The terrace area of 8640 sq. meters is covered under rain water harvesting projectThe College has undertaken activities in the field of public health initiatives, individual development, community development, behavioural intervention and promotion of healthy practices in the adopted villages

Lovely Professional University Kapurthala Jalandhar

Lovely Professional University (LPU) is a Private University situated on the outskirts of Jalandhar, Punjab. It is the largest single-campus university in India. It is recognized by UGC and is also a member of AIU. The university is ranked high on various parameters by acclaimed bodies and is a recipient of various awards including the *Best Private University Award by ASSOCHAM* again in 2017.

Student Strength	**32631**
Faculty Strength	**1608**

Residential Facilities

The University offers excellent separate living accommodation within the campus, for boys and girls. LPU has 15 Hostels (8 Boys' Hostels, 6 Girls' Hostel and 1 Apartment) which provides the students a wide range of stay option as per their preferences. Every hostel room has an attached toilet. In total there 6752 toilets and 414 housekeeping staff to maintain the same. The toilets are cleaned twice a day and they also ensure that all fittings are in order and washrooms are operational. There is a proper network of water supply system to ensure 24 hours of water supply in the campus.

Solid and Liquid Waste Management

Organic and recyclable waste is collected in colour-coded bins for easy segregation through a well-designed mechanism (more than 2150 collection points) in corridors, common areas in all hostels, academic and administrative blocks and open areas all over the campus. The recyclable waste is disposed-off through authorized agencies of Municipal Corporation. The university also uses vermin compost technology to convert the waste of leaf litter and kitchen waste using various species of earth worms into compost. The campus is Plastic free.

At the university all the sewage is treated in the Sewage Treatment Plant (STP) of 5 MLD installed inside the campus. The treated water is used for irrigation in the agriculture fields and horticulture inside the campus. The sludge generated is used as manure.

Bio-Medical Waste Management

The University collects hospital and bio-medical waste in prescribed colour-coded bins and disposed-off as per respective norms through Bio Medical Waste Treatment Plant Pvt. Ltd. (BMWT), Pathankot, which is authorized CBWTF operator by the government.

Hostel Kitchen Facilities

The hostel Kitchens at the university are fully mechanized with modern kitchen equipment and facilities like chimneys, steam boilers, chapati makers, flour kneaders for making dough, deep hat fryer, hot food Baines Marie, stock pot with bulk cooking and wet grinder etc. The dining halls are properly cleaned before and after every meal. The Messes are equipped with RO filters for drinking water and state of the art furniture.

Campus Greenery

More than 35% of area is under green cover. LPU is a lush green campus with more than 1, 83,200 plants, more than 12,000 trees and a herbal garden with diversified trees, plants and species. LPU has more than 15,000 potted plants to make campus beautiful. All academic blocks and hostels have easy access to green areas and parks. A Sprinkler system is used for irrigating green areas.

Solar Power

The university has installed two solar power plants with a capacity of 1.1 MW in the campus.

Adpoted Villages

Lovely Professional University established NSS at University Level which is an Indian Government supported public service program and has adopted 20 villages. The adopted villages are (i) Nangal Majja, (ii) Sapror, (iii) Palahi, (iv) Hardaaspur, (v) Chaheru, (vi) Maheru, (vii) Nanak Nagri, (viii) Atholi, (ix) Ranipur, (x) Madhopur, (xi) Barna, (xii) Daulatpur, (xiii) Mehta, (xiv)Semi in the Kapurthala district and(xv) Paragpur, (xvi) Khajurla, (xvii)Raipur, (xviii) HardoPharala, (xix) Salarpur, (xx) KukkarPindin the Jalandhar district of Punjab within the 15 km vicinity of the University campus. LPU-NSS focuses on harnessing the untapped potential of these villages for their economic and social upliftment.

Initiatives and Impact

The efforts of university volunteers has made a big impact on the lives of around 8000 people and 1614 families got benefited from the different activities which are mentioned below. LPU-NSS regularly conducts activities for the school students, awareness drives, rallies, medical check-up camps etc.in the adopted villages.

- The volunteers at the university organize cleanliness drives and Nukkad Natak to make people aware of the importance of cleanliness and hygiene.
- Every year students of the university participate in Swatch Bharat Internship which is initiated by the Central Government and perform activities like movie showcase on cleanliness, wall painting, teaching in school, demonstrations etc.

- The students identify and solve the problems of farmer's through innovative methodologies along with dissemination of new technologies for sustainable and quality farm production at minimal cost.
- The swachhta pledge campaigns have increased the awareness level of the people. A project called Feeding Bellies has solved the problem of waste food by benefitting the poor slum people residing nearby.
- LPU-NSS volunteers have also organised a seven day camp in the adopted village of Maheru based on the theme "Save Water Save world" in which volunteers visited door to door and taught people about the different Rain water Harvesting Techniques.
- The LPU-NSS volunteers through the project "Naari- her right her pride" distributed free sanitary pads to women.
- The activities have brought change in the mindset of the people regarding hygiene, sanitation, cleanliness, segregation techniques etc. Different localities of villages are now neater and clean, people started learning about the importance of cleanliness. Villages got open defecation free (ODF).

Outcomes

- The University offers a wide range of stay option within the campus, separately for boys and girls
- There are 6752 toilets and 414 housekeeping staff to maintain the same
- Organic and recyclable waste is collected in color-coded bins for easy segregation through a well-designed mechanism
- Recyclable waste is disposed-off through authorized agencies of Municipal Corporation
- Vermin compost technology is used to convert the waste of leaf litter and kitchen waste using various species of earth worms into compost
- The campus is Plastic free
- All the sewage is treated in the Sewage Treatment Plant (STP) of 5 MLD installed inside the campus
- Bio-medical waste is disposed of in prescribed color-coded bins as per respective norms through Bio Medical Waste Treatment Plant Pvt. Ltd
- The hostel Kitchens at the university are fully mechanized with modern kitchen equipments
- The Messes in the dining area are equipped with RO filters for drinking water and state of the art furniture
- More than 35% of the campus area is under green cover
- All academic blocks and hostels have easy access to green areas and parks
- A Sprinkler system is used for irrigating green areas
- The university has installed two solar power plants with a capacity of 1.1 MW in the campus
- LPU has adopted 20 villages within the 15km radius of the university
- Volunteers of the university have organised cleanliness drives and Nukkad Natak to make people aware of the importance of cleanliness and hygiene
- Every year students of the university participate in Swatch Bharat Internship which is initiated by the Central Government
- A project called Feeding Bellies has solved the problem of waste food by benefitting the poor slum people residing nearby
- LPU-NSS volunteers have also organised a seven day camp in the adopted village of Maheru based on the theme “Save Water Save world” in which volunteers visited door to door and taught people about the different Rain water Harvesting Techniques
- The LPU-NSS volunteers through the project “Naari- her right her pride” distributed free sanitary pads to women

Madurai Kamaraj University Madurai Tamil Nadu

The Madurai Kamaraj University came in to being through a bill passed in the legislative assembly of the state in the year 1965. It is a Statutory University owned and funded by the Government of Tamil Nadu and the U.G.C. The University has 21 academic centres and 21 quasi academic supportive units. It has 24 autonomous colleges, 14 aided colleges and 33 self-financing colleges. The Madurai Kamaraj University offers 41 Post-Graduate, 35 M.Phil. and IT diploma and P.G. diploma certificate courses in the various departments.

Student Strength	**2282**
Faculty Strength	**211**

Residential Facilities

There are three hostels for women and five for men with 467 and 431 inmates respectively. There are 152 toilets and 132 bathrooms fitted with modern facilities. The water storage capacity of the campus is around 4 lakh litres and 24 hours water supply is available through a well-established mechanism.

Solid Waste Management

The solid waste generated from each building is segregated as degradable and non-degradable and collected on a daily basis. The collected bio - degradable wastes are disposed at the compost yard and non-degradable wastes are sent for recycling. The liquid waste generated from men's hostel is recycled through Decentralized Waste Water Treatment System (DEWATS).

Hostel Kitchen Facilities

The University consists of a total of 7 kitchens and 8 dining halls in the student hostels. Kitchen LPG is used for cooking purposes and is stored in a faraway isolated structure.

Campus Greenery

Madurai Kamaraj University is situated in a sprawling campus of 528 acres at the foothills of Nagamalai with more than 50% green cover. The University is taking every effort to conserve the rich biodiversity in the campus. The campus is also home for more than 300 peacocks, innumerable fruit eating bats and other rare species.

Solar Power

10 Kw solar power panel was installed that provides power to the administrative block. A new solar power panel project was approved by Rural Electrification Corporation Limited (RECL), New Delhi under the CSR initiatives by signing a MoU with a budget of 7.25 crore for installation of solar panel with a capacity of 1 MW at MKU on September 2018.

Activity

The Government Rajaji Hospital, Madurai was adopted on 04.10.2017 and the premises of the hospital is cleaned at periodic intervals.

Outcomes

- Madurai Kamaraj University has separate hostels for men and women
- The hostel is hygienically maintained with provision of modern toilets and efficient water supply system
- Solid waste is segregated as degradable and non-degradable waste and the liquid waste is recycled through a Decentralized Waste Water Treatment System (DEWATS)
- The hostel kitchen is provided with LPG for cooking
- The University has more than 50 per cent green cover
- A new solar power panel project with a capacity of 1 MW is ready for installation

Madras Christian College (Autonomous) Chennai Tamil Nadu

Madras Christian College traces its origin to the General Assembly School founded by the Rev. John Anderson, a Missionary from the Church of Scotland on 3rd April 1837. Anderson was a pioneer in introducing English medium. The College is first among the Arts and Science colleges in the state of Tamil Nadu in meeting the Solar Purchase obligation, as it generates 50 per cent of its power needs through solar energy. education in South India. Academic Excellence, Social Relevance and Spiritual Vitality are the core values of the Institution.

Student Strength	**7542**
Faculty Strength	**311**

Residential Facilities

The college has 6 Halls (Hostels) of residence, 3 for men and 3 for women. Hostels have well-maintained western and Indian type of toilets with almost 24 hours of water supply. 967 inmates stay in the hostels.

Solid and Liquid Waste Management

The college manages solid waste by disposing it regularly through the municipality. Liquid and sewage waste is treated through the (STP) Sewage Treatment Plant with the capacity of 3 lakhs litre/day. A new STP is under construction. The College has installed 9 RO plants and the grey water is recycled and used for the toilets and garden.

Hostel Kitchen Facilities

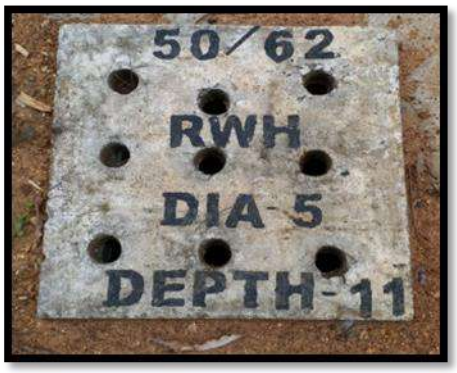
The hostel's modular kitchens are equipped with chimney and exhausts. The dining area is furnished with vitrified tiles, periodically cleaned with necessary safe chemicals.

Campus Greenery

The campus is 320 acres of tropical scrub jungle with 80% green cover. The campus is rich with flora and fauna - approximately 400 native plants including 100 exotic plants, 112 types of birds, 28 types of reptiles, amphibians and 85 species of butterflies, moths, spiders, beetles and wasps.

Rain Water Harvesting

The campus comprises of harvesting capacity of 1.3 Crorelitres/year, with 66 recharging wells installed. RWH meets 1/3rd of our campus requirement.



Solar Power Plants

The college has two units, 500 kWp + 100 kWp, with efficient poly-crystalline solar panels that generate 3,000 units/day of green energy meeting 50% of our campus energy needs.

Adopted Villages

Madras Christian College has adopted three villages Kaspapuram, Mappeduand Paduvancheryin Kanchipuram District of Tamil Nadu.

Benefitted Families: More than 900 people were covered under the awareness creation and campaign for 'open defecation free' (ODF) and cleanliness. ODF was achieved in these villages partially.

Activities Undertaken in the Villages:

Students of the college conducted door-to-door cleaning campaign and 'wall painting' on the disposal of garbage. They cleared garbage in the premises of railway station (Tambaram station), beach (Thiruvanmiyur area), public park (Anandhapuram park), lake (Selaiyur Lake) and library (Miller Memorial Library in College) and conducted 'no plastic' awareness rally in Tambaram local neighbourhood.

Outcomes

- Hostels have well-maintained western and Indian type of toilets with 24 hours of water supply
- Liquid and sewage waste of the college is treated through the (STP) Sewage Treatment Plant with the capacity of 3 lakhs litre/day
- The modular kitchens in the hostel are equipped with chimney and exhausts
- The dining area is furnished with vitrified tiles, periodically cleaned with necessary safe chemicals
- The total area of college is 320 acres, of which 80% is green
- The campus is rich with flora and fauna - approximately 400 native plants including 100 exotic plants, 112 types of birds, 28 types of reptiles, amphibians and 85 species of butterflies, moths, spiders, beetles and wasps
- The college generates electricity through solar power thereby making the campus self-sustainable
- Students of the college have conducted campaigns and wall painting on the disposal of garbage, spreading awareness on ODF(open-defecation free) thereby achieving partial ODF in the adopted villages
- Students of the college took an initiative and participated in cleaning the localities of Chennai

Maharana Pratap P.G. College Jungle Dhusan Gorakahpur Uttar Pradesh

Maharana Pratap P.G. College is situated in Gorakhpur in Uttar Pradesh state of India. The course of study followed in the college in accordance with the syllabus prescribed by Gorakhpur University. Arts, Science and Commerce streams are offered at the Graduation level.

Student Strength	**2163**
Faculty Strength	**65**

Residential Facilities

The college has one boys Hostel with 50 modern toilets. The toilet student ratio is 1. The hostel has 24 hours uninterrupted water and power supply.

Solid and Liquid Waste Management

The college generates two types of waste: solid and wet waste. The college also collects some amount of horticulture waste such as dried leaves or plant clippings. Certain amount of glass, fiber, and paper, plastic and biodegradable waste is also collected from all around the campus. Out of the waste collected, wet waste is used for composting and the dry waste is collected by Nagar Nigam for recycling. Waste from toilets in the campus flows into t he teak garden.

Hostel Kitchen Facilities

The college hostel provides healthy and nutritious food. The Hostel has a modern kitchen and a dining hall to accommodate 50 students at a time. The kitchen provides vegetarian food and utmost importance is given to cleanliness and hygiene.

Campus Greenery

30% of the college is lush green. In all, there are around 2500 trees and plants of different variety. The biodiversity includes Neem ,amla , Jamun, tulsi, Aleovira etc. The college has developed certain rare species like-Sarpgandha which is used to cure acidity and is a uterine tonic, Bhringaraj which is used in the cure of headache and fever, Kelikand used in the cure of snake bite, Jaundice and leprosy etc. The greenery in college campus is being maintained with the help of a garden committee of the Garden In charge and 5 student members.

Solar Power

Three Solar lamps have been installed in the college campus to provide outdoor lighting during evening and night.

Adopted Village: 28 Villages

The 21 departments of college and NSS have adopted a total of 28 village. The names of adopted villages are as follows:-ChhotiRetwahiya, BadiRewathaiya ,Haiderganj, Jungle Aurahi, DahlaHarsevakpur, Shahpur, MahuaChafi,Jungle Tikonia,Basantpur , Khutawa, kakrahiya, Meerganj, Lalganj,chotiJamunia,BadiJamunahiya, Dhodha, Laxmipur, Rampur, Bhagwanpur, HaripurShekhwania, Kewatahia, Dhusia, Tinkonia, Manjharia, Hasanganj. All these villages are situated in 15km radius of the college in Gorakhpur District.

Benefitted Families: Around 5500 people of 850 families were covered from these villages.

Activities Undertaken in the Villages:

These villages were adopted by the college with the aim to develop the villages in an integrated manner. This includes economic development, infrastructure development and other aspects of human development i.e., hygiene, education, health, drinking water supply, medical facilities and awareness of government schemes etc. The college has installed India Mark Hand pumps in the adopted villages to supply safe drinking water to villagers. The college has also initiated cleanliness drives in all these adopted villages on many occasions. Health camps have been organized and medicines distributed free of cost to the villagers by the college.

Outcomes

- The college has one boys Hostel with 50 modern toilets. The toilet student ratio is 1
- The wet waste in the college is composted and the solid waste is picked up by the Nagar Nigam
- The Hostel has a modern kitchen and a dining hall to accommodate 50 students at a time
- The kitchen provides vegetarian food and utmost importance is given to cleanliness and hygiene
- 30% of the college is lush green
- There are around 2500 trees and plants of different variety in the campus
- The college has developed certain rare species of trees which can be used to treat diseases like acidity, headache, fever, snake bite, jaundice and leprosy etc
- Three Solar lamps have been installed in the college campus to provide outdoor lighting during evening and night
- The college along with the NSS has adopted 28 villages in the 15 km radius of the college
- Around 5500 people of 850 families from these villages have benefited from the various programs run by the colleges
- The college has installed India Mark Hand pumps in the adopted villages to supply safe drinking water to villagers
- The college has also initiated cleanliness drives in all these adopted villages on many occasions. Health camps have been organized and medicines distributed free of cost to the villagers by the college

Maharshi Dayanand University Rohtak Haryana

Maharshi Dayanand University, Rohtak, was established in 1976 as a residential University with the objective of promoting inter-disciplinary higher education and research with special emphasis on studies of environmental, ecological and life sciences. Currently, there are 38 Post-Graduate departments and 11 Faculties in the University. The University is committed to transform lives and serve as a catalyst for intellectual, social, cultural and economic development.

Student Strength	**9938**
Faculty Strength	**378**

Residential Facilities

The University has 22 hostels. Toilets as per P.W.D. Standards with separate toilet blocks for women and men with proper signage have been provided in each building block having at least one toilet block consisting of at least 3 urinals with one English and one Indian style toilet seat. Overall hygiene is maintained by more than 250 employees. There are 60 employees for maintaining Public Health and Electrical Installations.

Drinking water is supplied after purification in the water treatment plant. Jumbo Water Filter Systems have been installed at specific places in the campus and hostels. Water coolers are also installed on each floor in every building. Direct supply from Yamuna Canal to water treatment plant (0.5 Mgd capacity) ensured 8½ hrs. supply/day of fresh water in hostels and teaching departments. Drinking water is supplied for 5½ hours to the residential campus. The water for other purposes is available for 24 hrs.

Solid and Liquid Waste Management

Waste segregated as bio-degradable (wet) and non-biodegradable (dry) forms is transported to a central repository, cleared and picked up at least twice a day. E – waste is disposed by an authorized

vendor of Govt. of Haryana. Collection, transportation, treatment, disposal of biomedical and chemical waste is done by the designated vendor. Liquid Waste Management through Sewerage Treatment Plant is being executed by Wapcos Ltd. (PSU of GOI). Sanitary napkin vending machines and incinerator machines are installed in the girl's common room, student's activity center and in all girls' hostels.

Hostel Kitchen Facilities

Cleanliness and hygiene of kitchens is strictly maintained at the campus. Cooks and servers wear apparel and gloves. Food in hostels is prepared using LPG. Distribution of PNG in entire campus by BPCL is under process.

Campus Greenery

The M.D.U campus boasts of 16000 trees of different 53 species, along with 6301 fruit trees of 25 species, 14500 Eucalyptus trees under social forestry program. Fine grass area of 324901 Sq.mt., rough grass area of 343214 Sq.mt. and hedge measuring 136325 Sq.ms. is maintained by more than 70 employees under SDO, Horticulture. The water requirements are met through rain water harvesting and treated watering from STP.


Solar Power

Solar Power of 1 MW is produced by the solar panels**.** The campus has 03 **e**co-friendly vehicles with a seating capacity of 12 each.





Adopted Villages: Five villages namely Baniyani, Maraudhi Rangran, Maraudhi Jattan, Bhaliand Ballab in Rohtak district adopted by the university.

Benefitted Families: A total population of more than ten thousand have been covered through this outreach program

Intervention Undertaken in the Area

A one week program of Health and Hygiene Awareness camp was organized from 11-18 February, 2019 by the NSS, M.D.U. Rohtak covering all five villages adopted by the university to sensitize regarding the cleanliness, health and hygiene and ODF. For this purpose, 'Nukkad Nataks', door to door contact with the inmates and lectures by experts and eminent speakers were held. An eye-check up camp was also organized by a team of doctors from the Pt. B. D. Sharma Health University, Rohtak. A cleanliness camp was also organized on 2ndOctober, 2018 by the NSS unit of M.D.U. Rohtak. In addition, a water conservation awareness programme was organized at BDPO Meham

District Rohtak on 18th August, 2019 with special emphasis on conservation of village ponds, lakes and wells, and diversification of agriculture for conservation.

Outcomes

- The University has 22 hostels
- Toilets as per P.W.D. Standards with separate toilet blocks for women and men with proper signage have been provided in each building block
- There are 60 employees for maintaining Public Health and Electrical Installations
- Jumbo Water Filter Systems have been installed at specific places in the campus and hostels
- Waste segregated as bio-degradable (wet) and non-biodegradable (dry) forms is transported to a central repository, cleared and picked up at least twice a day
- Sanitary napkin vending machines and incinerator machines are installed in the girl's common room, student's activity center and in all girls' hostels
- Cooks and servers wear apparel and gloves
- The M.D.U campus boasts of 16000 trees of different 53 species, along with 6301 fruit trees of 25 species, 14500 Eucalyptus trees under social forestry program
- Solar Power of 1 MW is produced by the solar panels
- The campus has 03 eco-friendly vehicles with a seating capacity of 12 each
- Health and Hygiene Awareness camp was organized by the NSS, M.D.U. Rohtak covering all five villages adopted by the university to sensitize regarding the cleanliness, health and hygiene and ODF.
    - Water conservation awareness programme was organized with special emphasis on conservation of village ponds, lakes and wells, and diversification of agriculture for conservation.

Manipal University Jaipur Rajasthan

Manipal University Jaipur (MUJ) provides a unique environment for the holistic growth of students, under the able guidance of experienced and committed teachers. MUJ students are busy with various curricular, co-curricular and extra-curricular activities happening all around the year. The campus is fully Wi-Fi enabled and boasts of a large, 300+ PC Central Computing Facility. The spacious and state-of-the-art Central Library at MUJ is adequately stocked. Many indoor and outdoor facilities are available to students for sports, cultural and technical activities, outside the classroom, through various Student Clubs.

Students Strength	**7754**
Faculty Strength	**485**

Description	Unit	Student Strength	Ratio
Male- EWC & Urinals	602	5432	1-9
Female – EWC	258	2322	1-9
Specially Abled	39		

Residential Facilities

The campus has 2991 rooms. The toilets are modern and are fitted with water flow restrictors, water aerators, sensor based urinals, anti-skid floor and centralized exhaust unit.

Solid Waste Management

There are disposal bins in both campus and hostels premises to collect organic, in-organic and hazardous waste. This is to segregate and collect different types of wastes generated at source without mixing with each other. The collected waste is sent to re-cyclers from the campus. MUJ has a 500kg/day capacity Bio-Digester which generates 30kgs of bio-gas per day to treat 100% of organic food waste generated from kitchens and food courts.

Liquid Waste Management

MUJ has two separate STP's for campus and hostels to treat 100% liquid waste generated. It removes contaminants from wastewater, which includes physical, chemical, and biological processes to remove these contaminants and produce environmentally safer treated water. The hostel blocks have a 1300 KLD MBR System and the campus has 500 KLD MBR systems. The sewage water generated is treated to tertiary standards and used within the premises for domestic purposes like flushing, landscaping and reusing the debris waste for the pathways and road areas base compaction.

Hostel Kitchen Facilities

The kitchen staff is well groomed and trained. Gloves, head gears and aprons are mandatory while cooking/serving food. They use bio-fuel and combioven. The kitchen is spacious and well ventilated with a chimney and powerful exhaust unit; LPG is used through pipelines. There is a walk-in cooler, dishwashing machines and hand wash soap dispensers in adequate numbers. The university carries out pest control of the premises and a periodic health check-up of staff.

Campus Greenery

Manipal University Jaipur has 40% green cover, which is nearly 480114.42 Sq Ft of landscape and naturally vegetated areas. The university has so far planted nearly 8000 trees in the campus and has plans to plant 9000 more trees. All the landscapes are designed with native and adaptive species of flora to restore the natural biodiversity of the region. The university has adopted efficient irrigation systems like micro drip and sprinklers to irrigate landscape areas. STP water is being used for horticulture in the campus. The university employs well trained housekeeping and horticulture staff members to ensure effective and error free cleaning and maintain greenery in the campus.

Solar Power

Manipal University Jaipur has installed a solar P.V array of 1.5 MWp on various building roof tops which contributes to 44% of total energy consumption by hostels and campus. This has reduced the conventional energy demand. MUJ has also installed renewable energy based hot water systems and heat pumps on the roof tops of hostel blocks to meet hot water demand in the building. The energy source for heat pumps is from the solar P.V array. The capacity for solar water heating is 550 KL per day.

The university buildings are designed and coloured to conserve energy. LED lighting is used in the whole campus. The buildings have double glazed glass panel windows. 80 % of AC load is met by solar power during office / peak timings. The university maintains power factor from 0.972 to 0.995 for which the university gets a rebate from JVVNL each month. The external lighting in the campus is all timer controlled.

Adopted Villages

The following areas and villages have been taken up by the university under Jaipur district for promoting swachhta:

Jaipur Railway Station, Mansarovar residential colony Dehmi Kalan, DehmiKhurd ,Sanganer, Sanjharia , Thikaria, Begus, Keshrisinghpura, Dhankya, Boraj, Mudiya Ramsar, Jaisinghpura, Lorwara, Mahla, UchaMagri Ki Dhani, Jhhag, Devliya, Maharajpura, Nimeda, Kakdodda, Teelawas,Kalwara, Bagru Khurd, Bagru, BrahAwaniya, Chimanpura, Hardhyanpura, Jaisinghpura Bus Neota, Jeerota, Bari Ka bas, Jhund, Charota etc.

Benefitted Families: More than 10,000 families have been benefitted till now.

Intervention Undertaken in the Area

The university has undertaken tree plantations; cleanliness drives (garbage collection), health awareness camps and legal aid camps. They maintain a school at Dehmi Kalan village. The university has distributed laptops, furniture, water cooler and books to this school. They have built toilets and shade at Bagru police station. The university has also created awareness about substance abuse and its ill-effects on society and community building. The university provides scholarships to support local region students. They have also built low-cost community based onsite sanitation systems.

Outcomes

- The campus has 2991 rooms
- The toilets are modern and are fitted with water flow restrictors, water aerators, sensor based urinals, anti-skid floor and centralized exhaust unit
- There are disposal bins in both campus and hostels premises to collect organic, in-organic and hazardous waste
- MUJ has a 500kg/day capacity Bio-Digester which generates 30kgs of bio-gas per day to treat 100% of organic food waste generated from kitchens and food courts
- There are two separate STP's for campus and hostels to treat 100% liquid waste generated
- The kitchen staff is well groomed and trained
- The kitchen is spacious and well ventilated with a chimney and powerful exhaust unit; LPG is used through pipelines.
- The university carries out pest control of the premises and a periodic health check-up of staff
- Manipal University Jaipur has 40% green cover, which is nearly 480114.42 Sq Ft of landscape and naturally vegetated areas
- The university has so far planted nearly 8000 trees in the campus and has plans to plant 9000 more trees
- The university has adopted efficient irrigation systems like micro drip and sprinklers to irrigate landscape areas. STP water is being used for horticulture in the campus
- Solar P.V array of 1.5 M Wp have been installed on various building roof tops which contributes to 44% of total energy consumption by hostels and campus
- Renewable energy based hot water systems and heat pumps have been installed on the roof tops of hostel blocks to meet hot water demand in the building
- The university maintains power factor from 0.972 to 0.995 for which the university gets a rebate from JVVNL each month
- More than 10,000 families have been benefitted till now in the adopted villages
- Cleanliness drives (garbage collection), health awareness camps and legal aid camps have been undertaken by the university
- Laptops, furniture, water cooler and books have been distributed to the village school
- Scholarships have been provided by the university to support local region students
- Low-cost community based onsite sanitation systems have been built in villages

Manonmaniam Sundaranar University
Tirunalveli Tamilnadu

Manonmaniam Sundaranar University (MSU) is a dynamic institution of higher learning, set in a rural milieu of southern Tamil Nadu, with a campus spread of 550 acres. The motto of the University is “Reaching the Unreached”. 2370 students are studying in this institution directly under the guidance of 130 faculty members. The University has under its jurisdiction 77 affiliated Colleges, 6 University Colleges and 4 Constituent Colleges, about 1, 20,000 students in regular mode and 40,000 students in distance mode. The main focus of the university is to produce individuals who have the expertise and intellectual curiosity to make a difference in their profession and the society and in conducting the research needed to meet the challenges facing the contemporary world. Majority of the students of this University belong to rural and economically weaker sections of the society. Hence, this University imparts education at nominal and affordable cost. The curricula of the courses offered by this University are periodically updated and the University has resourceful teachers to deliver the same.

Residential Facilities

The main campus has 5 hostels. The hostels are provided with 24x7 water facility, 24x7 Ambulance service and dispensary. There are total of 520 toilets in hostels and campus put together for students and 44 toilets for staff. Hostel kitchen facility is equipped with modern steam cooking equipment for food preparation. Cooking place and utensil cleaning space are maintained neatly. Cooks and servers wear clean and sterilized apparel. The campus has 36 water purifying RO units. Other facilities in the hostels include reading room with 16 daily newspapers, open theatre, 3 TV halls, Computer lab with 14 computers and one printer, internet connectivity with nine wi-fi modems, sewing machine, Indoor games facility and a badminton court. Campus also has a canteen with hygienic cooking, closed and open air facilities, a small store and two toilets.

Solid and Liquid Waste Management

The waste produced from various facilities are segregated and sent to appropriate unit for treatment i.e Kitchen waste is used for bio-gas production, Garden waste is used in vermin composting, Napkins are burnt using incinerators, waste water used in gardening and waste from laboratories are recycled. Remaining waste is collected by corporation from two garbage collecting units.

Campus Greenery

Majority area is covered with trees and bushes for deers and peacocks. All the buildings in the university have rain water harvesting facility. Water wells and bore wells are recharged during the rainy season by the rain water accumulated in the four ponds. Ground water is judicially used. A separate team with 44 members headed by a Director to protect greenery and to see the campus is plastic and tobacco free.

Solar Power

Campus utilizes the electricity generated by 1 MW of grid connected solar photovoltaic unit and unutilized energy if left is supplied to discom. The campus also has 68 solar street lights.

Adopted Villages

The university has adopted 3 villages namely

- Vallavankottai,
- Abishekapatti and
- Tulukarpatti of Manur taluk of Tirunalveli district

Interventions Undertaken in the Villages

Several awareness programs like elimination of open defecation, cleanliness, Digital India, Child Abuse, Gender Satisfaction, Crime prevention, personal hygiene, dengue prevention camp, Voter awareness etc were organized in the villages adopted.







Outcomes

- The main campus has 5 hostels
- The hostels are provided with 24x7 water facility, 24x7 Ambulance service and dispensary.
- There are total of 520 toilets in hostels and campus put together for students and 44 toilets for staff Hostel kitchen facility is equipped with modern steam cooking equipment for food preparation
- The waste produced from various facilities are segregated and sent to appropriate unit for treatment There is a separate team with 44 members headed by a Director to protect greenery and to see the campus is plastic and tobacco free
- The campus has 68 solar street lights
- Several awareness programs like elimination of open defecation, cleanliness, Digital India, Child Abuse, Gender Satisfaction, Crime prevention, personal hygiene, dengue prevention camp, Voter awareness etc were organized in the villages adopted

Mehr Chand Mahajan DAV College for Women Chandigarh

Student strength	**5317**
Faculty strength	**196**

Residential Facilities

The College has 6 residential hostels catering to 967 students. The college is well equipped with a High-Speed Wi-Fi Internet connection, Smart class rooms, modern toilets, auditorium, conference rooms, state of the art labs, modernized gym, reading room, indoor and outdoor recreation facilities and garden area. The college has water purifiers and water cooler system providing 24 hours safe drinking water. With toilet-student ratio of 1:7, the college has a total of 132 toilets and washrooms(including toilet for Divyangjan) furnished with exhaust fans, automatic washing machines and 24 hrs running hot/cold water supply facilitated by water storage capacity of 1,03,000 liters. Feminine hygiene concept is implemented in toilets with installation of two sanitary napkin vending machines and four incinerators and round the clock cleaning services.

The kitchen in the hostels have modern amenities like two Chapatti making machines, Atta Dough kneader, potato peeler, Commercial Mixture Grinder, Wet Grinder, Oil extractor, etc. The dining area is modernized with Stainless steel furniture, Bain Marie system for fresh and hot kitchen service, Fly killer machines and LED TVs. The cooking facility includes the latest technology driven 5 Chimneys, 11 LPG Burners, and exhaust systems. Good Hygienic Practices (GHP), Good Manufacturing Practice (GMP) and Hazard Analysis Critical Control Points (HACCP's) are followed for

food procurement, storage, processing, serving and disposal. In addition to regular health checkups of the mess workers, the Mess committee regularly inspects the mess on various parameters such as cleanliness of surroundings, food storage, food adulteration, food preparation, disposal and hygiene of the workers.



Solid and Liquid Waste Management

There are 180 garbage bins to segregate solid waste into Green (biodegradable) and Blue (non-biodegradable) bins at the source. The College is the first institution in region to install a Biogas Plant to manage food waste generated in the messes and food kiosks. The Bio-gas is used as fuel in the canteen kitchen and its digested slurry is discharged into integrated composting pits to augment the degradation process of garden waste. Garden waste generated is converted into organic manure in the composting pits**.** Functional Vermin-Composting Units are assembled to treat fruit, vegetable and floral waste to generate bio-fertilizer using Eiseniafoetida earthworms. Waste management strategy used as a skill based learning technique is Mushroom Cultivation from agricultural and green waste in used plastic bottles**. The c**ollection and disposal of e-waste is through government licensed vendor (Ramky Enterprises). For liquid waste management, a 50KLD capacity Sewage Treatment Plant (STP**)** is under construction in the college campus and another one of 150KLD capacity for the hostel is in pipeline.


Campus Greenery

More than 600 trees have been planted in the campus and scientifically named. The college has approx. 3 lakhs sq. ft. of green cover out of total area of 5 lakhs sq. ft. As a part of "Innovative Practices", an artificial forest has been created with about 70 plants of medicinal and economic relevance. Flora and fauna has been assessed by conducting Bio Diversity audit with an aim to move towards a cleaner, greener and a healthier environment, the college has Vertical farming, Botanical Garden, Green House, Rishi Vatika and Lawns that are maintained by Dedicated Horticulture Committee. Green Area is maintained by organic fertilizer from in house production of compost and vermi-compost. All the gardens are watered by tertiary water using sprinklers**.** The Recycled Water from STP (under construction) will also be used for the same purpose.

Water Management

In a bid to conserve water, the college has put in place Rain Water Harvesting System in its campus under the aegis of RUSA Grant.

Solar Power

The Renewable Energy Committee of the campus has installed a360 KW capacity rooftop Solar-powered photovoltaic (PV) which is presently functional. It generated 4,91,985 units from 2nd June, 2016 to 19th August, 2019 with a revenue generation of Rs 34,43,895.The College has installed 40 solar lights and 1.6kw solar panel in 2018 with a battery backup worth Rs 95,340. Another 200 kw solar plant is in pipeline.

Adopted Villages

The college NSS team has been working consistently towards the cause of society under Swachhta Pakhwada and Swachh Bharat Summer Internship (SBSI) in the nine adopted villages namely: **Kishangarh, Dhanas, Kajheri,Butrela, Bihru and Bhudan (H.P) JitwalKalan (Sangrur, Punjab), KanhariKalan (Haryana) and Niwarsi(Kurukshetra, Haryana).** A cluster of 5 villages around Chandigarh (Attawa, Kajheri, Butrela, Maloya, Badheri) have been adopted for further survey and rural development

Benefitted Families: 450




Outcomes

- The college hostel is well equipped with state of the art amenities
- Water purifiers and water cooler system providing 24 hours safe drinking water
- the college has a total of 132 toilets and washrooms (including toilet for Divyangjan) with toilet-student ratio of 1:7
- two sanitary napkin vending machines and four incinerators have been installed in the girl`s hostel
- The kitchen in the campus has modern machines for cooking
- The dining area is modernized with Stainless steel furniture, Bain Marie system for fresh and hot kitchen service, Fly killer machines and LED TVs
- The cooking facility includes the latest technology driven 5 Chimneys, 11 LPG Burners, and exhaust systems
- There are 180 garbage bins to segregate solid waste into Green (biodegradable) and Blue (non- biodegradable) bins at the source
- The College is the first institution in region to install a Biogas Plant to manage food waste generated in the messes and food kiosks
- Waste management strategy used as a skill based learning technique is Mushroom Cultivation from agricultural and green waste in used plastic bottles
- A 50KLD capacity Sewage Treatment Plant (STP**)** is under construction in the college campus for liquid waste management
- More than 600 trees have been planted in the campus and scientifically named
- An artificial forest has been created with about 70 plants of medicinal and economic relevance

Mizoram University Tanhril Aizawl Mizoram

Student Strength	**5744**
Faculty Strength	**313**

Residential Facilities

There are 8 (100 seater), 1 (60 seater), 2 new (100 seater), 2 new (73 seater) rooms in the hostel. All the toilets are fitted with tiles, flush and modern amenities.

Solid and Liquid Waste Management

The zoology department of the university has an incinerator**.** A Waste Management Technology program approved by DST, Technology Development and Transfer Division with a total fund of 3-4 crores will be installed soon. The medical waste is handed over to the Govt. of Mizoram. Currently Aizawl Municipal Corporation (AMC) is collecting all solid waste from the campus for disposal.

Hostel Kitchen Facilities

The kitchens in the campus are fitted with modern equipments with running hot and cold water.

Campus Greenery

Mizoram University campus has green cover of more than 90%. The university has a Bio diversity park which is maintained by gardeners. These parks are fitted with sprinklers to water the plants.

Rain Water Harvesting

The rain water at the campus is collected from roof top of the buildings and after purifying stored in 23 reservoirs with maximum capacity of 2,60,60,000 litres.

Adopted Villages

The University has identified five villages in consultation with the Deputy Commissioner, Aizawl. Following are the details of the villages:

District	RD block	Village	Population	Distance from District Hqrs (in KM)
Aizawl	Darlawn	Kepran	819	109
		Khanpui	1564	92
	Phullen	Thanglailung	874	118
		Phuaibuang	2179	160
		N.E. Tlangnuam	700	187

Interventions Undertaken in the Area

The university has completed the village and household survey works with the help of a fund of Rs. 1.75 lakhs. The NSS unit of Mizoram University has conducted some activities in the nearby villages.

Outcomes

- The hostel rooms in the campus have modern amenities
- The zoology department of the university has an incinerator which helps in waste disposal
- A Waste Management Technology program approved by DST, Technology Development and Transfer Division with a total fund of 3-4 crores will be installed soon
- The kitchens in the campus are fitted with modern equipments with running hot and cold water
- Mizoram University campus has green cover of more than 90%
- The university has a Bio diversity park which is maintained by gardeners
- The rain water at the campus is collected from roof top of the buildings and after purifying stored in 23 reservoirs with maximum capacity of 2,60,60,000 litres
- The University has identified five villages in consultation with the Deputy Commissioner, Aizawl.
- The university has completed the village and household survey works with the help of a fund of Rs. 1.75 lakhs received

Nirmala College Muvattupuzha Ernakulam Kerala

Faculty Strength	**141**
Student Strength	**2794**

Residential Facilities

The college has two women's hostels, one men's hostel and one sports hostel in the campus, which accommodates 392 students in total. All the hostels have adequate number of Indian and western lavatories with a ratio of 3:1. Both the toilets and bathrooms are maintained. Incinerators are installed in ladies hostels to dispose sanitary napkins. All the hostels have a committee of teachers and students to monitor periodic sanitation and social hygiene. The campus has two ponds and two wells that provide uninterrupted fresh water supply. 1,51,364 liters of water is being stored and supplied through 569 taps. In order to ensure safe drinking water in the campus, every block is provided with a minimum of one water purifier.

Hostel Kitchen Facilities

The hostel kitchens are equipped with modern cooking facilities and utensils like steam cooking units. The kitchens have attached chimneys. A solar water heater is used for hot water supply in the kitchen. All the hostels have attached common dining halls which accommodate all inmates.

Solid and Liquid Waste Management

The waste in the university is managed by bin segregation system. Three different bins are allotted for solid, liquid and chemical waste produced in the campus. The University has built Bio gas plants for the management of bio degradable wastes produced in the campus, thereby generating energy and for producing organic manure for vegetable cultivation. A Vermin-compost Unit with a capacity of 80 kg per month has been built to manage organic waste, which converts the waste to compost material. There is a plastic shredding unit to manage plastic wastes in the campus. Incinerators are installed to dispose sanitary napkins and plastic free solid waste. Chemical wastes from the laboratories are managed by an external agency through an MoU with the institution.

Solar Power

The college has installed solar panels in two blocks in the campus to conserve energy. The energy generated from 25 KV Solar Cells is 3000KWh/Month. The energy demands in these buildings are completely met through solar power.

Campus Greenery

The college is located on a hill top at the base of high ranges in the Western Ghats. The campus is spread over 53 acres of land (214483.68 m2). 47.11% of the campus is covered with vegetation. The following figures are according to latest Green Audit Report released in the campus:

- Total number of plant species identified in the campus- 462
- Tree cover of the campus - 96517.37 m^2
- Free space in the campus - 82268.94 m^2
- Garden area inside the college - 4532.48 m^2 (1.175 Acres)
- Total campus area - 214483.68 m^2 (53 Acres)

The college has clubs and forums like nature club, bio diversity club, National Service Scheme to preserve and conserve campus eco system. Students of Department of Botany and Zoology with the support of management maintain a Botanical Garden, Arboretum, Spices Garden and Butter Fly Garden in the campus. Sprinklers are used in the college to water lawns and vegetable farms in the campus. Wick irrigation is also practiced in the campus for undertaking organic farming.

Adopted Village

The College adopted village called Avoly Grama Panchayat, Ernakulam District, Kerala.

Families Benefited: 150 Households

The college has adopted nearby village Avoly as part of campus-community partnership for its holistic and integrated development. The objective of this scheme is to develop the village in an integrated manner with the active involvement of students and the community. This program offers students an opportunity to understand social realities or problems and enable them to solve any of these problems with the support of other stakeholders.

Constructed home for homeless

Intervention Undertaken in the Village:

- Conservation of Anikad Water Body (50 cents pond)
- Distribution of seeds and plant saplings to the households
- Educative programs for solid waste management
- Cleaning of public places
- Construction of houses and toilets
- Swachhta Rally and Street Play
- Walkathon for clean Ernakulam District in association with Rajagiri College of Social Sciences, Kochi
- Santhukadu Eco Restoration Project aims to enrich the Sree Durga Bhadra Naga Temple Sacred Grove
- Coordination of Eco Clubs in nearby schools
- Training for rural women in apiculture and mushroom cultivation
- Paddy cultivation in the village to popularize cultivation and to conserve water resource
- Preparation of vegetable gardens in schools
- Flood relief operations undertaken by NCC Unit
- Organization of Free medical camp and distribution of free medicine, cloths and other groceries in flood affected areas.
- Flood Mapping in affected areas

Paddy Cultivation

Cleaning Public Places

Free Medical Camps

Cleaning of Water-Bodies

Cleaning of Water-Bodies

Outcomes

- All the hostels in the campus have adequate number of Indian and western lavatories with a student toilet ration of 3:1.
- Incinerators are maintained in ladies hostels to dispose sanitary napkins.
- The hostels have a committee of teachers and students to monitor periodic sanitation and social hygiene
- The campus has two ponds and two wells that provide uninterrupted fresh water supply
- To ensure purity and safety of drinking water every block is aided with water purifier
- Hostel kitchens are equipped with modern cooking facilities like utensils for steam cooking, chimneys attached in all the kitchens
- The college manages waste by segregation of types of waste such organic waste, bio-degradable waste and chemical waste
- The college has installed solar panels in two blocks in the campus to conserve energy
- The college has conducted awareness camps for villagers regarding the importance of sanitation and solid waste management
- Training courses for women for apiculture and mushroom cultivation were conducted in order to empower them
- Organization of Free medical camp and distribution of free medicine, cloths and other groceries in flood affected areas

Nehru Arts and Science College Thirumalayampalayam Tamil Nadu

The College was established in 1998 offering 04 programs with 54 students. It is affiliated to Bharathiar University, recognized by UGC with 2 (f) and 12 (B), certified with ISO 9001:2008 and ISO 14001:2004. NASC was accredited by NAAC with "B" Grade (CGPA 2.75) in 2009 and reaccredited with “A” Grade (CGPA 3.10) in 2014. Due to the consistent and conscious efforts of the Management and the Principal, in nurturing the Institution, it has grown in strength and achieved success over the years. The College has got Autonomous Status in July 2017.

Residential Facilities

There are six hostels for both boys and girls. There is a provision of bio-toilets in the hostels. Doctors are made available to the students living in the hostel.

Water is stored by the rain water harvesting method

Hostel Kitchen Facilities

A Bio-gas plant supplies the cooking gas. Meals are steam cooked in a hygienic and a clean kitchen.

Solid Waste Management

The campus has a bio-waste disposal incinerator.

Campus Greenery

There is a herbal garden in the campus.

Solar Power

Solar panels provide the power for lighting in the campus.

Adopted Villages: Four villages have been adopted under Nachipalayam Panchayat, Coimbatore district viz. Nachipalayam, Kumarapalayam, Thambagoundanpalayam, Karunjamigoundanpalayam and Pachapalayam**.**

Intervention undertaken in the Villages:

Awareness campaigns were organized for a plastic free village.

Water Conservation Campaign was conducted for water security under Jal Shakti Abhiyan.

Amutha Surabi

Mission Clean City

Mushroom Cultivation

Nehru Dream Home

Outcomes

- There is a provision of bio-toilets in the hostels
- Water stored by rain water harvesting technique
- Greenery comprises of a herbal garden
- Solar power utilized for lighting in the campus
- The activities initiated and implemented were mission clean city, mushroom cultivation, and construction of a Nehru dream home

NIIT University Neemrana Alwar Rajasthan

Student Strength	**1279**
Faculty Strength	**55**

Residential Facilities

There are a total of 4 hostels, 2 each for girls & boys. The rooms are well furnished and served by 'Comfort Cool System' (Continuous Fresh Air System) with proper working space. The washrooms have modern fittings at each floor & wing, 24x7 availability of water (through automated hydro-pneumatic pumps) and electricity, along with 100% stand by back up.

Waste Management

Liquid Waste (toilet, bathing & kitchen) is treated in on Campus STP and re-utilized for horticulture/ arboriculture/ flushing line. Used lubricants are disposed through licensed vendors. All 'Run Off Water' (rainwater) is diverted to 4 'Water Harvesting Recharge Wells' for conservation of water.

Solid Waste: This is segregated into e-waste, food/vegetable/plastic/paper waste and metal/wood/stone scrap. Paper is recycled to make handicraft. Food waste is utilized as animal feed through a contract with local piggery. Vegetable and horticulture waste is converted to manure through composting pits. The campus has been declared a **"Plastic Free Zone".** Plastic waste is collected centrally for recycling by local vendor. E-waste is disposed through licensed vendor. Most of metal/stone/wood scrap re-utilized for landscaping of garden.

Hostel Kitchen Facilities

The kitchen is equipped with modern appliances, exhausts chimneys and is very hygienic. Samples of food are collected and stored for three days for verification. A daily food wastage board is meant to spread awareness among students not to waste food. There are three spacious and clean dining halls cooled through 'Green Air conditioning System', serving hot food through electric food warmers.

Campus Greenery

About 70% of the university is covered with greenery. All new students and all visitors plant a tree. All plants are geo-tagged for future reference and maintenance. More than one lakh trees have been planted in the arid zone to resurrect the ecology and improve biodiversity. University aspires to convert the 'Kali Pahadi' (Aravalli Hills) into 'Hari Pahadi' in due course. Watering of saplings is done through drip irrigation lines and of lawns and fields through sprinklers with recycled water from the STP. Besides greenery, campus is a home for various non-humans including different varieties of birds, bees and mammals. In last one year the University has added 5 villages and one housing society for 'Swachhata' and improving green cover.

Solar Power:
Solar Panels are used for heating water in winters. Smart Street Light based on solar panels have been activated.

Innovative Use of Technology

Green Air conditioning: The University employs a unique **'Geo-Thermal Coupling Cooling System'** to cool all buildings of the Campus in summers by using three elements of the nature – air, earth and water. Air is brought in through Air Intake Towers, filtered, run 4 meters below surface through underground tunnels for heat exchange and further cooled with water. It is then delivered through Air Handling Units; a continuous Fresh Air System (best indoor air quality) with minimum carbon footprint and 50% conservation of Energy.

Adopted Villages
The University collaborated with the local community through a '**Community Connect'** and '**Each One Teach One'** programs. Five schools from villages Kali Pahadi, Mohalariyan, Neemrana, Janaksingh Pura and Kath Ka Majra of Neemrana Block adopted by the University for comprehensive education of more than 500 students. In addition four villages (Jhalawas, Manethi, Salarpur& Sanauli), two residential colonies (Ashadeep & RIICO Colony,) three schools (MDVM Parle, Sr Sec Girls and Rashtriya Schools Neemrana) incorporated for spread of Swachhata and social awareness, through their Sarpanches & Principals

Benefited Families/ People: 5000 individuals

Interventions Undertaken in the Villages

Five thousand more trees have been planted in last one year for **Greening of 'Kali Pahadi'** (Aravalli Hills) adding to more than one lakh trees in last 10 years, with 75% survivability rate through drip irrigation with recycled STP water. The **'Sabi River Revival Project'** of the University has resulted in partial success with support of Haryana Govt and excess rainwater diverted through Rajiv Gandhi Canal, has resulted in pondage of **Masani Barrage** (Dharuhera). The University has taken initiative for **'Solid Waste Management'** for industries, housing complexes and market at Neemrana Block through a 'Round Table', workshops, exhibitions, poster campaigns and competitions. A Plastic Recycling Plant is being shortly set up in the Campus for entire Block

Outcomes

- The rooms are well furnished and served by 'Comfort Cool System' (Continuous Fresh Air System) with proper working space
- Liquid Waste is treated in on Campus STP and re-utilized for horticulture/ arboriculture/ flushing line
- Solid Waste is segregated into e-waste, food/vegetable/plastic/paper waste and metal/wood/stone scrap.
- Paper is recycled to make handicraft
- The campus has been declared a **"**Plastic Free Zone"
- The kitchen is equipped with modern appliances, exhausts chimneys and is very hygienic
- About 70% of the university is covered with greenery.
- All new students and all visitors plant a tree

- All plants are geo-tagged for future reference and maintenance
- 5 villages and one housing society for 'Swachhata' and improving green cover have been added
- The University has activated lights based on solar panels
- The University employs a unique 'Geo-Thermal Coupling Cooling System' to cool all buildings of the Campus in summers by using three elements of the nature – air, earth and water
- 5000 individuals have benefited from the Swachhata and social awareness programs conducted by the University
- More than one lakh trees have been added to the kaali Pahari to make it into Hari Pahadi
- The 'Sabi River Revival Project' of the University has resulted in partial success with support of Haryana Govt and excess rainwater diverted through Rajiv Gandhi Canal, has resulted in pondage of Masani Barrage (Dharuhera)

OP Jindal University OP Jindal Knowledge Park Raigarh Chattisgarh

Founded by the Jindal Education and Welfare Society, OP Jindal University (OPJU) was set up to bring high quality education to its students based on a world class curriculum, the latest teaching methodology and committed faculty members. The multidisciplinary university aims to develop young professionals and future leaders who will not only power growth and development in the state, but also make a mark globally.

At the core of the university's philosophy and approach lies the belief that students learn best when exposed to real world situations and when nurtured through enriching interactions with practitioners and professors.

Residential Facility

There are total of three hostels in the campus which can accommodate 1000 boys and 300 girls. The toilets in the hostels are equipped with modern flooring and equipment. The toilets are fitted with exhaust and air vents. All the toilets have a 24 hour running water supply of both grey water and fresh water. In order to maintain the hygiene, the toilets are cleaned twice a day by dedicated staff

Solid and Liquid Waste Management

The university is using composting technology and activated sludge process for liquid waste management.

Hostel Kitchen Facilities

In hostels kitchen, the kitchen staff uses clean and sterilised apparel. The food is cooked and served by well-trained dedicated staff. The food preparation are fully mechanised with modern cooking equipment. Chimneys are installed in all the kitchens. The entire dining area is tiled and is furnished with modern furniture and serving equipment. Dustbins have been put at place for disposal of segregated garbage.

Campus Greenery

The campus is lush green with approximately 34% green cover. The university has been conducting regular tree plantation drives. The university has asked every member of the staff to plant a sapling on his/her birthday. Each student has also been asked to plant one tree during the induction program. There has dedicated staff to maintain the garden, lawn and trees. Sprinklers are used for irrigation. The University has planted orchid of fruits and meditational plants other than decorative plants.

Innovative Usage of Technology

There university has installed solar water heating systems in all the three hostels. The University is also creating a solar PV Carport within the campus in association with Fronius India Pvt. Ltd. The engineering students of the University have designed and developed a Solar Car recently and participated in the Electric Solar Vehicle Championship 2019 at Chandigarh. They won the Hero

Electric Spirit Award. The University is in the process of preparing a road map to use solar power for all the common and street light.

Adopted Village: Tumidihi, District Raigarh

Students and staff of the University very often visit nearby villages of Tumidihi, Amlidihi, Bhalumar. They spread awareness about the importance of cleanliness. The University team has also been educating them about the harmful effects of plastics and has asked the villagers to refrain from using polythene bags. They are also advised about the need to keep their village clean as this could create a breeding ground for mosquitoes. The students and members of the staff of the university have also taken initiatives to maintain cleanliness in the village area. The villagers have been told about the harmful effect of Open Defecation. They have been told of the Government Schemes which they can use to build their own toilets The University has also been campaigning for cleanliness by educating the students of nearby schools.

Outcomes

- The university has been conducting regular tree plantation drives
- Every student and staff have to plant one tree as per the university`s tree plantation policy.
- Sprinklers are used for irrigation
- Solar water heating systems are installed in all the three hostels
- The University is creating a solar PV Carport within the campus
- The engineering students of the University have designed and developed a Solar Car recently and participated in the Electric Solar Vehicle Championship 2019 at Chandigarh and won the Hero Electric Spirit Award
- The University is in the process of preparing a road map to use solar power for all the common and street light
- The food is cooked and served by well-trained dedicated staff
- The food preparation are fully mechanised with modern cooking equipment
- Chimneys are installed in all the kitchens
- The entire dining area is tiled and is furnished with modern furniture and serving equipment
- Dustbins have been put at place for disposal of segregated garbage
- There are total of three hostels in the campus which can accommodate 1000 boys and 300 girls
- The toilets have a 24 hour running water supply of both grey water and fresh water

O.P. Jindal Global University Sonipat

OP Jindal is a non profitable Global University e established by the government of Haryana and recognised by the University Grants Commission who was established in 2009 at the Sonipat district of Haryana as a philanthropic initiative of its founding chancellor Mr Naveen Jindal in the memory of his father mister op Jindal. JGU is one of the few universities in Asia that maintains a one is 213 faculty student ratio and appoints faculty members from India and different parts of the world with outstanding academic qualifications and experience.

Residential Facilities

The campus is fully residential and the students are housed in 10 hostels each with state of the art and entities and hygiene facilities. Round the clock housekeeping activities are undertaken to ensure total cleanliness. Toilets urinal sensor have been installed to reduce wastage of water and jet hand dryers have been installed to ensure proper hygiene , granite and anti vitrified tiles have been used for flooring i. Fans have been installed for toilet ventilation .

Solid and Liquid Waste Management

Garbage is handled and treated with over 7500 dustbins across the campus. A twin Bin policy has been implemented for garbage segregation. Segregated garbage is collected by the municipal corporation of Sonipat.Green waste is converted into vermin compost for the Horticulture use. Sewage water is treated in a sewage treatment plant and the treated water is used for irrigation.

Hostel Kitchen Facilities

The University operates its food services through a modern centralised kitchen in the kitchen and in the dining area air cutters and flycatchers have been installed to ensure an insect free environment

in addition to air handling systems that ensure proper air circulation and ventilation. Fire resistant stainless steel ceiling tiles and fully automatic fire suppression system ensure that the kitchens are safe for the workers and to reduce human intervention in the preparation of food . The kitchen has fully automatic dishwashing machines and fully automatic chapati making machines.

Campus Greenery

58% of the J G U campus is under green covering including a 50 metre green belt on the Periphery of the campus this green cover is maintained by a team of gardener's undertaking hoeing weeding watering cleaning non-moving hedge cutting Bosch cutting manuring pruning anti termite weedicide and insecticide treatment as a result the campus is host to a wide variety of species of flora and fauna.

Solar Power

The University has installed a hundred KV solar power system which on an average generate unit per day.

Adopted Villages

JGU has identified 10 villages for making themself-sustainable. These villages include Chhatera, Jagdishpur, Garhibala, Rathdhana, Rohat, Badh Khalsa,Bahalgarh, Nahara, Khanpur and Rai in the Sonipat District of Haryana. Swachhta campaigns have also been carried out in Tulip labour colony, close to our campus. As a result of our efforts, Rathdana,Jagdishpur and Jatheri have been made open defecation free. JGU proposes to adopt 15 more villages ,thereby taking the total tally to 25 villages. Team of faculty, staff and students visit these areas to carry out, among other things, cleaning activities.This is done once every month in different areas and these visits essentially include the following activities:

- Carrying out cleaning in the vicinity
- Removal of any accumulated/ stagnated water
- Distribution of dustbins and other hygiene products
- Educating residents on the benefits of personal hygiene and environmental cleanliness
- Educating residents on open defecation
- Female hygiene awareness and distribution of female hygiene products
- Petitioning National Green Tribunal, Pollution control boards, district, panchayat and municipal administration

Interventions Undertaken in the Villages

JGU has identified 25 villages for making them self-sustainable. Swachhta campaigns have also been carried out in Tulip labour Colony, close to the University campus. As a result of the efforts, Rathdana, Jagdishpur and Jatheri have been made open defecation free **(ODF)**. JGU has planned to develop a cluster of 50 villages - Team comprising faculty, staff and students to visit these areas to carry out, among other things, cleaning activities. This is done once every month in different areas and these visits essentially include the following activities:

- Carrying out cleaning in the vicinity
- Removal of any accumulated/ stagnated water
- Distribution of dustbins and other hygiene products
- Educating residents on the benefits of personal hygiene and
- environmental cleanliness
- Educating residents on open defecation
- Female hygiene awareness and distribution of female hygiene
- products

Support for Jal Shakti Abhiyan

JGU is committed to support Jal Shakti Abhiyan, specifically through the following three initiatives:

(a) Revival of village ponds
(b) Campaign for rainwater harvesting
(c) Promotion of bio-sand filters for natural cleaning of drinking water

No to single-use plastic materials

Village school students, together with village volunteers are invited to attend sessions to sensitise communities to prohibit single use plastic materials and develop a culture to support "no plastic use culture". These sessions are organised by JGU both in villages as well as on its campus. JGU is looking to impact a cluster of 50 villages through this initiative.

STUDENTS TAKE CSC INITIATIVE

Sonepat: Law students of the OP Jindal Global University, Sonepat, have taken the initiative to work on their "Community Score Card" (CSC) which is also known as community voice card. CSC is a participatory, community-based monitoring tool that enables citizens to assess the quality of public services such as health centre, anganwadi and public transportation. The CSC process empowers the public to voice their opinion and demand improved service delivery. Students have trained para-legal volunteers who will be working with them throughout the project. The next step for the project is to organise camps and sessions in the villages with the help of district legal services authority to make the citizens realise the need for CSC, said Yukti Kumar, one of the students.

Promotion of Open Defecation Free (ODF) as a Culture

Through various rallies and awareness campaigns in villages, JGU focusses on creating a culture of ODF in villages where it works. In these initiatives, the emphasis is on behavioural change requirements. The University calls it ODF plus.

Rotaract Club Activities

The Rotaract Club under their Operation 'Paperdrive' collected more 1500 kgs of waste paper. All the money received from that was used to buy notebooks for the students studying in the government school adopted by them. The Rotaract Club under Project 'Gaon' adopted a village nearby where Solar lamps were distributed to the school going kids so that can study in night too. Free health check-up camp was also organised where 600+ people came and got themselves checked by the various doctors. The Rotaract Club conducted a Swachh Bharat drive at the Gwalior fort in the month of January 2019.

युवाओं को मतदान के लिए प्रेरित करते दीपक कुमार। (जागरण)

ग्रामीणों को मतदान के प्रति किया जागरूक

सोनीपत, 15 अप्रैल (ब्यूरो): जिला विधिक सेवा प्राधिकरण एवं ओ.पी. ग्लोबल विश्वविद्यालय के विधि विभाग के सहयोग से सोमवार को गांव गढ़ शहजानपुर व राई में मतदाता जागरूकता शिविर आयोजित किया गया। शिविर के मुख्य वक्ता एडवोकेट शिव प्रसाद शर्मा व कानूनी सेवक दीपक कुमार मंथन थे।

इस अवसर पर एडवोकेट शिव प्रसाद शर्मा ग्रामीणों को प्राधिकरण द्वारा दी जाने वाली निःशुल्क कानूनी सेवा के बारे में विस्तार से जानकारी दी। उन्होंने बताया कि जिनकी सलाना आमदनी 3 लाख से कम है, उनको मुफ्त कानूनी सहायता दी जाती है।

लोक अदालतों के माध्यम से भी बिना किसी खर्च के न्याय मिलता है। इस मौके पर कानूनी सेवक दीपक मंथन ने कानूनी अधिकारों का सही प्रयोग करने की शपथ दिलवाई तथा मतदान करने के लिए प्रेरित किया। इस अवसर पर गढ़ शहजहांपुर की सरपंच सावित्री, लॉ स्टूडेंट युक्ति कुमार, सानिया बागो, सात्विक उपाध्याय, देविका अग्रवाल सहित अनेक ग्रामीण मौजूद थे।

ग्रामीणों को दी कानूनी जानकारी

शिविर में वोट डालने की शपथ दिलाते कानूनी सेवक दीपक मंथन ● जागरण

जासं, सोनीपत : जिला विधिक सेवा प्राधिकरण के तत्वावधान में सोमवार को सीजेएम तैय्यब हुसैन के निर्देशानुसार गांव गढ़ शहजानपुर और राई में डोर टू डोर वोटर कानूनी जागरूकता शिविर का आयोजन किया गया। इस दौरान आपका भविष्य आपके हाथ परियोजना के तहत ग्रामीणों को वोट के कानूनी अधिकारों की जानकारी दी गई।

कार्यक्रम में ओपी जिंदल ग्लोबल विश्वविद्यालय के विधि विभाग का सहयोग रहा। जागरूकता कार्यक्रम में मुख्य वक्ता के रूप में कानूनी सेवक दीपक कुमार मंथन, एडवोकेट शिव प्रसाद शर्मा एवं युक्ति कुमार ने सभी को प्राधिकरण द्वारा दी जाने वाली निःशुल्क कानूनी सेवा के बारे में विस्तार से जानकारी दी।

उन्होंने बताया कि जिनकी की सालाना आमदनी तीन लाख से कम है, उन्हें मुफ्त कानूनी सहायता दी जाती है। लोक अदालतों के माध्यम से बिना किसी खर्च के सभी को न्याय मिलता है। उन्होंने कहा कि डिजिटल भारत अभियान के माध्यम से भी गांवों को समस्या मुक्त करने का प्रयास किया जा रहा है। इस दौरान दीपक मंथन ने सभी को कानूनी अधिकारों का सही प्रयोग करने की शपथ भी दिलवाई। इस मौके पर गढ़ शहजानपुर की सरपंच सावित्री, युक्ति कुमार, सानिया बागो, सात्विक उपाध्याय, देविका अग्रवाल आदि मौजूद रहे।

Outcomes

- The students are housed in 10 hostels each with state of the art and entities and hygienic facilities
- In all the toilets urine all sensors have been installed to reduce wastage of water and jet hand dryers have been installed to ensure proper hygiene granite anti skid vitrified tiles have been used for flooring
- Supply of domestic fasting and drinking water is available round the clock 32 rainwater harvesting Chambers have been constructed to recharge groundwater level
- Twin policy for garbage segregation segregated garbage is collected by the municipal corporation of Sonipat
- Green waste is converted into vermicompost for the Horticulture use
- Sewage water is treated in sewage treatment plant and the treated water is used for irrigation
- In the kitchen and dining area air cuttings and fly catchers have been installed to ensure insect free
- About 58% of JNU campus is under green cover including 50-metre-long green belt on the periphery of the campus
- The University has installed a 100 KVA solar power system which on an average generates to 50 units per day
- 25 villages have been adopted by the University, there are regular activities involving factory faculty members and students such as cleaning removal of stagnant water distribution of dustbins as well as other hygiene products and education of residence on the benefit of personal hygiene and environmental cleanliness

Ponnaiyah Ramajayam Institute of Science and Technology (PRIST) (Deemed to beniversity) Thanjavur Tamil Nadu

PRIST is a deemed university. The institute offers undergraduate and postgraduate courses in Engineering, Science, Education, Management, Arts, and Law, as well as research programmes. The Institute has campuses in Trichy, Kumbakonam, Puducherry, Chennai and Madurai. The campus is located on the outskirts of the city. The agro setting of the campus attracts many birds like peacocks and parrots as well as a variety of butterflies.

Students Strength	**4046**
Teaching Faculty	**357**
Non – Teaching Faculty	**163**

Residential Facilities

The university can accommodate 300 students in 3 hostels. The hostels have 9 toilets and a 24 hour water supply.

Solid and Liquid Waste Management

To manage solid waste the university recycles plastic with the help of external vendors. A bio gas plant is maintained by the department of agriculture. It uses the organic waste from the canteen and the hostel mess and the cow dung from the cowshed located in the campus. Composting is also done in the campus using the sludge from the bio gas plant and leaf litter collected from the campus. The university has connected the black water from the septic tank and the grey water to the oxidation tank, these along with RO rejects are used for campus gardening.

Hostel Kitchen Facility

The university has a master kitchen with an additional bio-gas stove (connected to biogas plant) for hostel inmates to use for heating water, milk, coffee, etc. There is separate spacious dining hall adjacent to the master kitchen.

Campus Greenery

Almost 30% of the total area of the campus has a green cover. The School of Agriculture maintains a coconut orchard, teak and walnut trees and the lawn at the campus. Drip irrigation and sprinkler systems are used for the lawns and the agricultural land.

Solar Power

The engineering block of the campus receives solar power through photo- voltaic cells. The campus also has a weather station which is powered by solar power.

Adopted Villages - Soorakottai, Puthupattinam, Kelavastha Chavadi, Munnayampatti, Sennampatti in Thanjavur district

Families Benefited: 100

Interventions Undertaken in the Villages:

The university has taken initiatives towards cleanliness, sanitation and hygiene in these villages. They have conducted health check up camps so that people can be guide to the government hospitals for further treatment. A door to door nutrition awareness program was conducted. The students have planted evergreen shrubs and trees.

Outcomes

- The university can accommodate 300 students in 3 hostels
- The hostels have 9 toilets and a 24 hour water supply
- The university recycles plastic with the help of external vendors
- The university has connected the black water from the septic tank and the grey water to the oxidation tank, these along with RO rejects are used for campus gardening
- The university has an additional biogas plant for hostel inmates
- Almost 30% of the total area of the campus has a green cover
- The School of Agriculture maintains a coconut orchard, teak and walnut trees and the lawn at the campus
- Drip irrigation and sprinkler systems are used for the lawns and the agricultural land
- The engineering block of the campus receives solar power through photo- voltaic cells
- The campus also has a weather station which is powered by solar power
- The university has adopted 6 villages in the Thanjavur district
- About 100 families have benefited from the initiatives taken by the university students

PSGR Krishnammal College for Women
Coimbatore Tamil Nadu

Affiliated to the Bharathiar University, the college is situated in a beautiful campus. Over a period of 55 years it has grown into a full-fledged first grade post graduate-research institution with multi storied buildings, well equipped laboratories, an excellent ever-growing library with a good collection of Books, National & International Journals and with an extensive well maintained play ground and Sports Arena.

Student strength	**7435; Three shifts**
Faculty Strength	**342**
Number of hostels	**9**

Residential Facilities

Sanitation facilities are given a lot of importance in PSGRKCW*; the university believes that toilet* etiquette is all about hygiene and cleanliness. The university maintains clean and safe toilets, clean water sources and safe disposal of garbage. The toilets at the campus are both western and Indian style with tiled flooring; exhausts and airvents and 24 hours water supply. There are separate toilets for differently abled men and women. The toilets are maintained 3 per day and whenever needed.

Solid and Liquid Waste Management

Bio Gas Plant

Bio-Compost

The university has adopted composting for waste management. Solid waste like cooked food is converted into Bio Gas and raw waste is Bio composted. The liquid Waste is managed using Aerobic system in the hostels.

Hostel Kitchen Facilities

Cooking area with chimney

Dining Hall

The servers at the mess and kitchen wear clean apparel and the cooking vessels are sterilised apparel the food is prepared mechanically using modern cooking equipment. LPG and Bio-Gas is used for cooking. The campus has a Solar Power system for energy conservation; The cooking and dining area is tiled with adequate furniture. The dining room is spacious, ventilated with hygiene signages and proper waste disposal system.

Campus Greenery

The green cover in the campus is about 30%. The university has created name boards for the botanical name of each plant. The Manual-Distance of water source from Garden/Lawn is 10 mts and sprinklers are used to water the plants. The university has employed 25 staff for maintain the garden.

Solar Power

The university has installed 3 solar panels in college campus. This has helped them save approximately, Rs. 136097.75 in power charges per month.

Adopted Villages: Vellanaipatti, Serayampalayam, Kaikolapalayam, Aandakapalayam
District: Coimbatore.

Number of People or Families Covered By Effort

Programme	Beneficiary
Plastic Awareness	1500
Dengue Awareness	175
Breast Cancer Awareness	242
Cleanliness Awareness	1500
Domestic waste Management	450
Toilets Awareness	1400
Significance of breakfast	300
Swachhta Melas	350

These awareness programmes in the adopted village have helped people to improve the standard of living and health.

Swachatha Melas

Domestic Waste Management

Outcomes

- The university maintains clean and safe toilets, clean water sources and safe disposal of garbage
- The toilets at the campus are both western and Indian style with tiled flooring; exhausts and air vents and 24 hours water supply.
- There are separate toilets for differently abled men and women
- The university has adopted composting for waste management
- Solid waste like cooked food is converted into Bio Gas and raw waste is Bio composted
- The liquid Waste is managed using Aerobic system in the hostels
- The campus has a Solar Power system for energy conservation
- The dining room is spacious, ventilated with hygiene signage and proper waste disposal system
- The green cover in the campus is about 30%
- The university has installed 3 solar panels in college campus. This has helped them save approximately, Rs. 136097.75 in power charges per month
- The university has adopted 4 villages in Coimbatore district
- The students at the university have conducted programs on cleanliness, plastic awareness, Dengue and breast cancer awareness
- The students have undertaken swachta Mela`s and conducted cleanliness drives and made people aware about domestic waste management
- These awareness programmes in the adopted village have helped about 1500 people to improve the standard of living and health

Rajagiri College of Social Sciences (Autonomous)
Ernakulam Kerala

Rajagiri college of social studies is situated in Kochi of Kerala State. It is an autonomous college with two campuses namely Hill Campus and Valley campus. It is ranked 35th position in NIRF ranking 2019 and also accredited with a rating of 3.7 by NAAC. Their policy is to promote environmental friendly living with a strong environment movement. Both the campuses are dedicated to 'Sustainable Environment Education Campus'. There are 1412 students and 89 faculty members.

Student Strength	1412
Faculty Strength	89

Residential Facilities

The hostels and college has 254 and 211 toilets respectively which have modern facilities and has vitrified flooring and modern plumbing facilities. Student – toilet ratio is 1:2 whereas Student and Staff – toilet ratio is 1:7. 490 students live in 4 hostels. All the girls' toilets are equipped with sanitary napkin vending machines and napkin disposal bins. The bins are cleared twice daily by the cleaning staff and are burnt in incinerators available in the campuses and hostels.

Solid and Liquid Waste Management

Food waste generated in all the kitchens and cafeterias are used in 3 different ways

1. To generate renewable energy and used to prepare food in the kitchens.
2. To make vermin compost (organic fertilizer) and to use in gardening. Approximately 100 kg of manure is prepared out of food waste every month.
3. To use as feed for piggery.

Hiclear Sewage Treatment Plants (STP) are used to treat, recycle and reuse the liquid waste. The capacity of STP is CMD. The process is odour free, low sludge generating, energy-efficient, requiring little or no maintenance, strong, rust free and light weight. The treated water is used for toilet flushing and gardening where there is no body contact.

Electronic Waste (E-waste) and Glass Waste Management

All old, damaged and unused electronic devices are exchanged with new hardware under buy back scheme. Silica powder is prepared from the glass waste by specialized powdering machines. Silica powder is mixed with cement and used for construction purposes.

Hostel Kitchen Facilities

The hostels are equipped with modern kitchen facilities and have best dining facility and cooking ambience. Electrified air suction chimney keeps kitchen odourless always. The dining halls have anti-skid tile flooring, and ample sitting capacity.

Campus Greenery

The Green cover of the campus is 57%. Biodiversity of flora and fauna is well preserved and details are documented. The campus has a herbarium where the plants are labeled. The campus has Butterfly garden and vertical gardens. A variety of bamboos (including rare species) were planted. Drip irrigation method is adopted to conserve water resource and recycled water is used for gardening purposes. The campus has won accolades consecutively for the past four years in the flower show organized by the Ernakulum District Agri-Horticulture Society. Several awards were received from the District collector, Spices board, India and state Horticulture society for preserving Biodiversity.

Solar Power

In association with Kerala State Electricity Board (KSEB), Grid connected Solar Photovoltaic system is installed for the energy needs of the campus. Excess energy is fed back to the grid.

The measurable outcomes of Optimized Renewable Energy System are listed below:-

- This project enables RCSS with a badging of Net Zero Energy Institution.
- Carbon savings– 400 Kgs of CO2 per day.
- Financial savings on an annual average basis – Rs 9,000/- per day.
- Protection from inflation in energy cost (currently at 15-20% per annum).
- The project can be scaled up to 300 KW by simply adding panels.
- Improved power factor-system is capable of feeding reactive power into the grid.

Adopted Villages: The institution has adopted 5 villages namely, Edathala, Keezmadu, Vazhakulam, Vengola and Chottanikkara in Ernakulam District, Kerala.

Families / People Benefited: 200

Intervention Undertaken in the Villages:

- A special project of 5 month duration was carried out in Kanjoor Gramapanchayath, “Clean Village- Healthy Village - a drive for solid waste management” in association with Kerala State Council for Science, Technology and Environment.
- Ward level Skill Training Workshops on the need for waste management, methods of waste management, role of individuals in making the village clean and healthy
- Training in Compost making, using simple, zero expensive and traditional methods
- Selected women skilled in tailoring from 15 wards of the Gramapanchayat were trained in Cloth Bag Making
- Skill Training in Paper Bag Making
- Selected an agency (Plan@earth) for collecting plastic wastes from the households

Outcomes

- A special project of 5 month duration was carried out in Kanjoor Gramapanchayath, “Clean Village- Healthy Village - a drive for solid waste management” in association with Kerala State Council for Science, Technology and Environment.
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- Training in Compost making, using simple, zero expensive and traditional methods
- Selected women skilled in tailoring from 15 wards of the Gramapanchayat were trained in Cloth Bag Making and Paper Bag Making
- Selected an agency (Plan@earth) for collecting plastic wastes from the households
- Carbon savings of 400 Kgs of CO_2 per day by using the Optimized Renewable Energy System
- Excess energy by the Solar Photovoltaic system is fed back to the grid
- The Green cover of the campus is 57%. Biodiversity of flora and fauna is well preserved and details are documented
- The hostels are equipped with modern kitchen facilities and have best dining facility and cooking ambience
- Food waste is used to generate renewable energy, vermin compost and feeding pigs
- The hostels and college has 254 and 211 toilets respectively which have modern facilities and has vitrified flooring and modern plumbing facilities
- All the girls’ toilets are equipped with sanitary napkin vending machines and napkin disposal bins

Rajiv Gandhi National University of Law Patiala Punjab

Rajiv Gandhi National University of Law (RGNUL), Punjab, was established by the State Legislature of Punjab by passing the Rajiv Gandhi National University of Law, Punjab Act, 2006 (Punjab Act No. 12 of 2006). The Act incorporated a University of Law of national stature in Punjab, thereby fulfilling the need for a Centre of Excellence in legal education in the modern era of globalization and liberalization. The main campus of the University is at Sidhuwal, Bhadson Road, Patiala in an area of 50 Acres of land. The state-of-the-art Campus has an Administrative-cum-Academic Block, separate spacious Library Building, Auditorium, Sports Complex, Boys and Girls Hostels, Guest House, Community Hall, Health Centre, Residences, Stadium and other facilities. The main campus of the University is at Sidhuwal, Bhadson Road, Patiala in an area of 50 Acres of land. The state-of-the-art Campus has an Administrative-cum-Academic Block, separate spacious Library Building, Auditorium, Sports Complex, Boys and Girls Hostels, Guest House, Community Hall, Health Centre, Residences, Stadium and other facilities.

Residential Facilities

There are eight hostel blocks (4 for boys and 4 for girls) have been completed. Three blocks each for boys and girls are equipped with separate mess / dining facilities. All the hostels are equipped with an aqua guard with a water-cooler to ensure 24-hour pure drinkable water supply. Proper hygiene and sanitation facilities are maintained by 24-hour housekeeping service. The hostels are also equipped with 24 hour secured Wifi connection. Special rooms with attached wash-rooms have been prepared for disabled students.

Hostel Kitchen Facilities

RGNUL has separate fully air-conditioned dining halls for boys and girls having total capacity of 330 students each. The kitchens are ultra modern kitchens and are equipped with large cold storage facilities, water coolers with R.O and exhaust chimneys.

Campus Greenery

The green coverage is 66.18% in the University. The rain water is collected by rain water harvesting in the campus. Recharge wells have been constructed across the campus.

Solid and Liquid Waste Management

The solid waste in the mess is segregated. The medical waste is segregated and disposed as per norms. The e- waste is disposed through a licensed vendor. The University has banned single use plastic in the campus. Accounts and other file work are completely digitized to save paper. There is a fully functional STP for liquid waste management. A Vermiculture compost pit is used to convert the kitchen waste into manure. There is a functional biogas plant in the campus. Sanitary napkin wending machines have been installed at girls hostels and academic block in the campus.

The University has installed collection points in form of disposable boxes to collect plastic waste in all the hostels of the university and also at various other points like faculty houses, library, facilty area, Gym etc. The waste collected from the students and faculty members is being routinely submitted to the office of the Deputy Commissioner, Patiala so that it can be forwarded to the

recycling factory. The students, faculty and staff members undertook a special drive to clean three kilometres area around the university from plastic and all the stray plastic items were picked up and collected for recycling.

Solar Power

Solar Panels have been installed on all the roof tops of the University

Adopted Villages: The five villages adopted by the university are, Bakshiwala, Sidhuwal, Jassowal, Lachkani, and Lang

Intervention Undertaken in the Villages:

The students and faculty members have undertaken many activities in the adopted villages to create awareness about environmental sustainability, swachhta, water conservation and prohibition on stubble burning. Awareness camps were organised by the students of RGNUL at various places for eradication of water stagnation, misuse of electricity, Swachh Bharat Abhiyan, use of sustainable resources and legal literacy.

Many medical camps have been organised under the banner of Swachhta Se HatKe. In these camps free medical advice and care were extended to women, children, senior citizens and students. Free health checkups of Heart, Skin, Iodine and Iron deficiencies in women, Eye Checkup, blood donation were conducted to create consciousness about safety of health, importance of sanitation and proper care of our body.

Special drives for awareness of cleanliness were initiated and undertaken throughout the year in the adopted villages Lachkani and Jassowal especially. The awareness about swachhta and the ban on single use plastic items were created among the villagers and the shopkeepers were advised and instructed about prohibition on single use plastic.

These villages were also demonstrated the use of alternative measures in place of single use plastic. Renewable and the reusable alternatives like paper bags, paper cups, paper plates etc. inclusive of infused carry bags were distributed to the villagers.

Outcomes

- All the hostels are equipped with an aqua guard with a water-cooler to ensure 24-hour pure drinkable water supply
- Special rooms with attached wash-rooms have been prepared for disabled students
- The green coverage is 66.18% in the University
- Recharge wells have been constructed across the campus
- Accounts and other file work are completely digitized to save paper
- Sanitary Napkin Wending Machines installed at girls hostels and academic block in the campus
- Plastic waste is collected and sent for recycling
- Solar Panels are installed on all the roof tops of the University
- Awareness activities like environmental sustainability, swachhta, water conservation and prohibition on stubble burning in the villages

- Free medical advice and care were extended to women, children, senior citizens and students through medical camps in the villages
- Awareness created about the ban on single use plastic items among the villagers and the shopkeepers
- Renewable and the reusable alternatives like paper bags, paper cups, paper plates etc. inclusive of infused carry bags were distributed to the villagers

R.M.K. Engineering College Kavaraipettai Tamil Nadu

Located at Kavaraipettai, near Chennai, Tamil Nadu and part of the renowned RMK Group of Institutions, RMKEC since its inception in 1995 has, for over two decades dedicated itself to create and maintain a clean, green and healthy living habitat and enriching learning environment. With '**Swachh Bharat Abhiyan' drive** launched by the Government of India on the 145th birth anniversary of Mahatma Gandhi, RMKEC embraced the cause and enriched the goals of the mission through its effective methodologies and sustained efforts.

Students	**3107**
Staff Members	**197**

Residential Facilities

There are 8 academic blocks and 6 hostel blocks in the campus.

Hostel Kitchen Facilities

The college has an efficient management of the entire food production. They use modern cooking equipment and sterilized apparels for neatness and hygiene. The college has installed RO plants, safe pipeline systems and modern water coolers for safe drinking water.

Solid and Liquid Waste Management

The college has monitoring system of proper organic waste segregation and garbage disposal to ensure 100% clean surroundings. The college uses recycling methodologies for solid waste management. Solid waste generated in the campus is segregated at a source into bio-degradable and non-biodegradable wastes. Bio-degradable waste comprising kitchen waste, garden waste, paper waste etc., non-Bio-degradable waste comprising plastic and e-waste are recycled through authorized agencies. Sewage treatment plants in the college treats around 10 lakh liters of sewage per day and 2-3% of the sludge gets transferred to the composite pits. The college has reduced paper consumption significantly through On-line administration and management of academic activities, implementation of on-line internal.



Campus Greenery

The lush green and Eco-friendly campus has around 200 species of plants. Re-treated water is used in sprinklers and 100% Non-polluting vehicles for in-campus transportation. The college follows rain water harvesting method to conserve water in the campus. This includes rainwater harvesting pits, tanks and check dams that can store up to 20,01,10,452 liters of water.


Solar Power

The solar panels and bio-gas plants installed around the campuses generate around 20% of power requirement of the campus.

Adopted Villages: The College has adopted 5 villages in Thiruvallur district namely Melmudalambedu, Madharpakkam, Kilmudalambedu, Puduvoyal and Chinnakavanam. The college has organised health and hygiene camps, awareness programme on Swachhta Bharat Abhiyan, Solid Waste Management through installation of micro composting centres, technology integrated smart farming projects and Skill development programs for faculty and students in the panchayat union schools.

Compost Pit

Green and Clean Campus

Modern Kitchen Equipments

Outcomes

- There are 8 academic blocks and 6 hostel blocks in the campus.
- The college has installed RO plants, safe pipeline systems and modern water coolers for safe drinking water
- The college uses recycling methodologies for solid waste management
- Solid waste generated in the campus is segregated at a source into bio-degradable and non-biodegradable wastes
- Sewage treatment plants in the college treats around 10 lakh liters of sewage per day
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- Re-treated water is used in sprinklers
- 100% Non-polluting vehicles are used for in-campus transportation
- Solar panels and bio-gas plants installed around the campuses generate around 20% of power requirement of the campus
- Health and hygiene camps, awareness programme on Swachhta Bharat Abhiyan, Solid Waste Management through installation of micro composting centres, technology integrated smart farming projects have been organised in the adopted villages

RR Bawa DAV College for Girls Gurdaspur Punjab

Residential Facility

The residential facility on campus houses a total of 1817 members and it provides adequate number of toilets for hostel residents as well as the college students. All the toilets have running water facility for 24 hours with proper ventilation, modern flooring and equipment. Incinerators have also been fitted in all toilet blocks. The toilets are cleaned by housekeeping staff twice a day to maintain hygiene of the area.

Hostel Kitchen Facilities

Hostel kitchen uses traditional equipment for cooking and is very well maintained. The cooks and servers prioritise hygiene while cooking. Only LPG is used, thus avoiding the pollution and waste generated during cooking. The dining room has pucca tiled floor with modern furniture, such as dining tables and chairs. The dining room is fitted with exhaust fans. It is decorated with natural green pots adding aesthetic value to the space.

Dining Hall

Cooking Area

Solid and Liquid Waste Management

The college has vermin composting unit to form manure from the organic waste generated on the campus by using earthworms. Efforts are taken to re-cycle the waste generated in the college. In addition, the institute has adopted a unique tradition of reusing the paper for taking prints of their correspondence and notices for internal circulation within their departments. The paper used is also of organic nature.

Rain water harvesting unit helps in conserving and storing the rain water, which is in-turn used in the landscaping and other sanitary works of the college. Waste water given out during the process of RO is supplied to the water tanks meant for the use of flush tanks in the toilets and the water that overflows from the tanks is used for gardening purpose through underground pipes installed on campus.

Rain Water Harvesting

Vermi Compost Pit

Campus Greenery

The college has an abundant green cover spanning above 50 percentage of the campus area. The lawn and plantation include both ornamental and vegetation species. Gardeners are employed by the college to water the trees and plants and maintain the lawns.

Campus Greenery

The college maintains bird houses, some of them fixed on trees and others hanging on the branches. Food trays and water pots for birds are also kept on the top of roof. The department of Botany is assigned the job of looking after the biodiversity on the campus. The college has banned the use of polyethene bags in the premises of the campus to make it environment friendly. Hawan Yajna is performed daily in the college with different herbs from wood for environment cleaning and safety from various insects in the campus.

Solar Power

Solar panels are installed in the hostels as well as campus. The college also uses solar lights, solar boilers and solar heaters.

Adopted Village: Chhinna, Tehsil Batala, Distt. Gurdaspur (Punjab)

Families Benefited: 127

Intervention Undertaken in the Villages:

Under the direction of the college and with the assistance of villagers, proper sewerage system has been installed. Now the villagers enjoy toilets of modern technique. The villagers were made aware that the burning of stubble added to the pollution and is detrimental to the health. They were advised that stubble must be further harvested and be converted into fodder for cows and buffaloes. The farmers were told that for the purchase of these machines, the government provides 80% subsidy.

Village Road before proper Sewerage System

Tiled Road with Sewerage System

Swachhta Seminar for the Household families Seminar on the ill effects of stubble burning for villagers of Village Chhinna

Tree Plantation Activity in Adopted Village

Outcomes

- The residential facility on campus houses a total of 1817 members
- The college has adequate number of toilets for hostel residents as well as the college students
- All the toilets have running water facility for 24 hours with proper ventilation, modern flooring and equipment
- Incinerators are fitted in all toilet blocks
- Hostel kitchen uses traditional equipment for cooking and is very well maintained
- Only LPG is used, thus avoiding the pollution and waste generated during cooking
- The college has a vermin composting unit to form manure from the organic waste generated
- The college reuses paper for taking prints of their correspondence and notices for internal circulation within their departments
- Rain water harvesting unit helps in conserving and storing the rain water, which is in-turn used in the landscaping and other sanitary works of the college
- The college has an abundant green cover spanning above 50 percentage of the campus area
- The lawn and plantation include both ornamental and vegetation species
- The college has banned the use of polythene bags in the premises of the campus to make it environment friendly
- Solar lights, solar boilers and solar heaters are used in the campus
- Awareness campaigns for stubble burning, installation of sewage system in the adopted village

Siksha 'O' Anusandhan Odisha

Siksha 'O' Anusandhan Deemed to be University (Declared u/s 3 of the UGC Act, 1956) located in J-15, Khandagiri Square, Bhubaneswar – 751030 in Odisha. It has been Total Student Strength of 10389 and Total Faculty Strength: 1079.

Residential Facilities: SOA has 25 hostels for boys and girls (total boarding capacity of 8508), with the current residing strength being 7127 students. The hostels are equipped with the spacious and adequate number of Indian and western Flush system lavatories with ceramic urinal pans, toilet seats and wash basins. Ceramic wall tiles and vitrified antiskid floor tiles are used. The bathrooms are provided with modern Geysers and solar heaters for provision of warm water. Exhaust fans are installed in the lavatories and bathrooms. Water supply is provided through the government water supply system and borewells. The water, stored in overhead tanks and underground reserves, is distributed through pump houses. All the hostels and academic buildings are provided with adequate number of water purifiers (Aqua Guards/Coolers etc.) for clean drinking water. Maintenance of cleanliness and hygiene is outsourced and monitored by a team of supervisors on daily basis.



Solid and Liquid Waste Management:

SOA has 48 Garbage Clearance Units per building and 12 Garbage Clearance Units per floor. The solid garbage is collected, segregated and disposed in safe manner. The collection, segregation and disposal of bio-medical waste is outsourced to M/s. Sani Clean Pvt. Ltd., Bhubaneswar, which is authorized by Odisha State Pollution Control Board for waste treatment facilities relating to bio-medical waste using Autoclave/Microwave/Incinerator shredders etc. The lifting and disposal of general garbage (both wet and dry) from all campuses are outsourced to M/s Space, Bhubaneswar. Bhubaneswar Municipal Corporation (BMC) is also involved in the process of garbage disposal. Besides SOA has its own Sewage Treatment Plant (STP) in each campus for liquid waste management.







Hostel Kitchen Facilities

The canteen / messing facilities have been outsourced. Dedicated Food and Beverage expert committee, Food and Beverage operational committee and Food and Beverage monitoring team have been constituted to maintain optimum level of quality in food preparation, distribution and cleanliness. Hostels are equipped with spacious state-of-the-art kitchens, with clever designs, sleek styles and layout involving best in class materials and equipment. HACCP (Hazard Analysis and Critical Control Points) principles have been thoroughly implemented to maintain quality and hygienic food standards. Use of anti-skid tiles on kitchen floors, proper drainage, installation of modern chimneys and ventilation facilities across kitchens along with iron-grading at the top are some of the features of SOA kitchens. All the kitchens are equipped with modern facilities and equipment like pulverizers, trulssen, bain bain-maries, deep fat fryers.



Campus Greenery

SOA has adequate lush green coverage of around 45 acres out of the total campus area of 127.10 acres. It has lawns and gardens in every campus as also instructional farms and other areas maintained by trained and dedicated maintenance staff. The lawns and gardens have automated sprinklers and are also manually watered.


Solar Power

SOA initiated the use of solar power across its different campuses. Solar energy is tapped and utilized basically to supply warm water through solar operated geysers.



Rain Water Harvesting: In a bid to conserve water, SOA has put in place Rain Water harvesting system in its campuses.


Adopted villages

- Chattabara gram panchayat in Khordha District, 12 villages in Jahangirabad of Cuttack District, 3 gram panchayats (Baluria, Andara and Amrutamanohi) of Kendrapada District and Malipada village in Khordha district.

- Behera Basti, Kargil Basti, Patel Basti, Chalasahi, Paikraipur, Malipada, Madanpur, Arisol, Bindhagiri, Kujimahal, Kantabada, Shyampur, Nuagaon & Patrapada, in and around Bhubaneswar city of Khurda District of Odisha are also the places where swachhata & different awareness activities have been undertaken.

Benefited Families : More than one lakh people have been benefitted by the effort.

Intervention Undertaken in Villages

- SOA worked towards adoption and development of different villages and gram panchayats in Odisha. It has developed 12 villages in Jahangirabad of Cuttack District, Odisha, as a smart village cluster powered by clean energy (solar powered) and modern internet capabilities. A wide variety of Clean Technology (LED lightings, solar water pumps, electric car and vans, solar powered sanitation and e-learning centre) have been deployed along with uninterrupted clean energy services: a very unique system in India.
- SOA spends to the tune of Rs. 6.72 lakh per annum for scholarships in 3 gram panchayats (Baluria, Andara and Amrutamanohi) of Kendrapada district, Odisha.
- SOA has also spent around Rs. 7 lakh in developing Baluria High School which is shared by 3 gram panchayats in Kendrapada district.
- Chattabara gram panchayat in Khurda district, has been developed under Lab to Land technology transfer.
- A rural health centre at Jamujhari village of Khordha district has also been set up.
- Students of SOA undertook restoration of the village pond in Malipada in Khordha district over a period of two years. The pond is now being used by the villagers. The volunteers also cleaned up the temple premises, streets and playground.
- Intervention include among others - Swachha Bharat Abhiyaan, Jan Dhan Yojana, Awareness on Adult, Women Education, School Dropouts, Pond Cleaning, Fire Skill Demonstration, Water Harvesting, Soil Conservation, Organic Farming, Backyard Agriculture, Mushroom Cultivation, Dryland Farming, Azolla Cultivation, Organising Health Camps, Awareness on Jaundice, TB, Old-age Diseases, Health checkups for old-age diseases and children, Awareness about prevention of heatwave shocks, Organization of Oral Health Camps, Danger of Ghutka, and tobacco chewing, Health and Brushing tips, Common foods in different diseases, Measurement of Blood Pressure, Blood Sugar etc.





Outcomes

- SOA has 25 hostels for boys and girls (total boarding capacity of 8508), with the current residing strength being 7127 students
- The hostels are equipped with the spacious and adequate number of Indian and western Flush system lavatories with ceramic urinal pans, toilet seats and wash basins
- SOA has 48 Garbage Clearance Units per building and 12 Garbage Clearance Units per floor
- The solid garbage is collected, segregated and disposed in safe manner
- SOA has its own Sewage Treatment Plant (STP) in each campus for liquid waste management
- Dedicated Food and Beverage expert committee, Food and Beverage operational committee and Food and Beverage monitoring team have been constituted to maintain optimum level of quality in food preparation, distribution and cleanliness
- All the kitchens are equipped with modern facilities and equipment like pulverizers, trulssen, bain bain-maries, deep fat fryers
- SOA has adequate lush green coverage of around 45 acres out of the total campus area of 127.10 acres
- SOA initiated the use of solar power across its different campuses
- More than one lakh people have been benefitted from the activities conducted by SOA in the villages
- SOA has developed 12 villages in Jahangirabad of Cuttack District, Odisha, as a smart village cluster powered by clean energy (solar powered) and modern internet capabilities

Symbiosis International (Deemed University)
Pune Maharashtra

Symbiosis was established in the year 1971, by Prof. Dr. S.B. Mujumdar on the principles of the Vedic thought **'Vasudhaiva Kutumbakam'** meaning 'World is One Family'. The vision of the University is 'Promoting International Understanding through Quality Education'. The Symbiosis International (Deemed University) was established in the year 2002. The main campus of the University is located in the picturesque hilly region near Pune. Today, the campuses of University are spread across four states with 43 Constituents offering quality education under eight Faculties supported by 786 qualified and dedicated faculty. The University has created a state of the art Infrastructure across all its campuses.

Symbiosis International (Deemed University), Main campus at Lavale, Pune

The University offers programmes at Undergraduate, Postgraduate and Doctoral levels. Students are admitted to the University through all India Entrance Examination.

Female Strength	**9437**
Male Strength	**10650**
Total Strength	**20,087**

Residential Facilities

There are hostels for girls and boys at every campus of the University. The Main campus of the University has 18 hostels. The rooms in the hostels are of double and triple occupancy with attached toilets and bathrooms with 24 X 7 water supply. The University has its own water purification system along with water purifiers. Solar water heaters are installed on all hostel buildings for supply of hot water. All hostels are equipped with Wi-fi facility. Every campus has a Symbiosis Centre for Health

care with residential medical staff. University has established the Symbiosis Centre for Emotional Wellbeing and student affairs to take care of the emotional health of the students. Every campus has Recreation and Wellness centre with well-equipped gymnasium, and outdoor and indoor sports facility. To maintain cleanliness in and around the hostels, housekeeping staff have been appointed. The washrooms are cleaned twice daily, and monitored by the hostel staff on daily basis. All Symbiosis campuses are "No Smoking" Campuses. Alcoholic beverages are strictly prohibited on all campuses.

For differently abled students, there are specially designed hostel rooms, with ramps, railings at various places for movement and access to all places, Lifts with friendly controls, and Disabled friendly toilets, wash rooms in academic buildings.

Hostel Rooms and Sanitary block in the Hostel room

Special facilities at hostel and academic buildings for differently abled students

Hostel Kitchen Facilities

The kitchens at all the hostels are mechanized and well equipped with modern cooking amenities. The University ensures that the equipment and the kitchen are kept clean to ensure hygienic standards. At a time 1600 students can dine in the mess.

Dining Hall/ Mess

Mess Kitchen

RO Water purifiers

Sports and Recreation Facilities

The University provides attractive sports and recreational facilities to engage students in positive leisure engagement and promote personal growth that is of critical importance to healthy development and enhancing the quality of student life. These sports and recreational activities contribute to the overall growth of the students.




Waste Management

University has established a research centre called Symbiosis Centre for Waste Resource Management (SCWRM) dedicated to promote trans-disciplinary approach for basic and need-based, applied research on waste management and efforts in bridging the gap between lab and society. The University emphasizes on 3-R principle (Reduce-Reuse-Recycle) of waste management. SIU follows at-source segregation of wet and dry waste for ease of processing. The separately collected waste is processed on campus through different waste processing technologies.

Solid Waste Management

'Nisarg Laxmi' concept-based compost unit

'Nisargruna' Biogas plant of 1 TPD capacity

Biodegradable solid waste is processed using biogas as well as composting technologies. The university has installed BARC technology based, two 'Nisargruna' biogas plants of 1ton capacity each. The kitchen waste is mainly treated in the biogas plants. A portion of the kitchen waste and the garden waste are processed for converting it into compost with the process accelerating

'NisargLaxmi' culture and method developed by the Symbiosis Centre for Waste Resource Management, and using mechanical organic waste converters (OWC). The overall capacity of composting systems on campus is approximately one ton per day. Both, the biogas and the composting systems on university campus process about 1000 kg of kitchen waste every day.

The university also has developed reactors to process used cooking oil and plastic to recycle and generate source of energy in the form of hydrocarbon. The reactors designed on the process developed by SCWRM are installed to process 20 kg waste oil and 6 kg of plastic waste per day. The recovery of hydrocarbon from oil is about 83% whereas that from plastic varies between 65 to 80%.

Plastic (PP & PE) and waste oil processing reactors to generate hydrocarbons

'Biocrux' unit, a PET bottle shredding machine for primary processing of plastic bottles and beverage bottles for further recycling. It has a capacity of processing 300 bottles per hour.

PET bottle shredding unit

The other dry wastes, including metal, plastic, wood, glass, rubber has reuse and recycle potential, and are collected separately for disposal through authorized vendors. Similarly, biomedical and e-waste are collected separately and disposed as per Pollutions and Control Board (PCB) norms through authorized vendors.

Liquid Waste Management

Wastewater generated on the campus is treated using both activated sludge and biological treatment methods for reuse of water. SIU, Lavale campus has 190KLD capacity Sewage Treatment Plant (STP) and 5 reed beds of 5 lakh litres capacity each. The treated water is re-used for biogas plants, gardening, lawns, washing floors and irrigating plantation.

Sewage treatment plant and Reed Bed

Reed bed for wastewater treatment

Campus Greenery

The main campus of the University is located on 350 acres of hilly region. Over 60% of the land is densely covered with various habitats such as grassland, deciduous trees, water bodies and plateau. The University has a team of dedicated staff to look after landscape gardens, plantation of indigenous trees, butterfly gardens. The University has constituted a Bio-diversity cell, which takes care of awareness, conservation, education and research in the area of Bio-diversity. The University has constructed two huge water reservoirs (Bandhara) for rain water harvesting. The water storage capacity of the reservoirs is over 30 crore litres. This water is sufficient enough to cater to the needs of the campus for 10 months.

The University has recorded 256 floral species and 191 faunal species in its campuses, and it still continues to record new species. As its commitment to conservation of nature, the University has published books on 'Singing Rocks', 'Natures Wonders at Symbiosis' and 'Fauna of Symbiosis International University'.

Flora and Fauna at the Symbiosis International (Deemed University) Lavale campus at

Books published by the University on the flora, fauna and rocks at the campus

Solar Power

The University has installed solar panels across all its campuses. The solar power systems offer an independent source of unlimited renewable energy. The solar panels are designed to generate energy on cloudy and partly sunny days, and even in the cold season. The solar panels with a capacity to generate over 2.5 MW solar power are installed all across university campuses.

Table: Solar plant capacity at various campuses of the University

Name of the Campus	Solar panel capacity kW
Pune	**1874**
➢ Vimannagar	100
➢ New Vimannagar	208
➢ Lavale Hill top	806
➢ Lavale Hill Base	390
➢ Kirkee	110
➢ Hinjewadi	200
➢ S.B Road	40
➢ Atur Center	20
Hyderabad	**468**
Bengaluru	**200**
Total	**2524**


Solar panels of 1.8 MW capacity installed at SIUs' Lavale campus as renewable energy source.

Community Outreach Initiatives

The University has launched Symbiosis Community Outreach Programme and Extension (SCOPE) with the objective of positively impacting the community around the University. SCOPE undertakes different initiatives in and around its campuses in the Health sector as well as non-health sector.

Healthcare Initiatives:

The Family Doctor Clinic (FDC) and Mobile Medical Unit (MMU) were launched in the Mulshi block of Pune district. MMU is a well-equipped mobile clinic run by a Medical Officer, a staff nurse and one medical social worker. It is catering to 14 villages in Mulshi block and 2 construction sites in Walhekarwadi and Kalakhadak areas of Pimpri Chinchwad Municipal Corporation (Total 24 sites). MMU currently provides healthcare services to over 14 different villages at 26 different locations. Together MMU and FDC have provided services to over 72,000 individuals since 2012.

Non Healthcare Initiatives

Poster competition conducted by students in Sus ZP school to raise awareness regarding Gram Swachhata

Awareness sessions being conducted in Sus ZP school regarding effective handwashing techniques

The University`s Institutional Social Responsibility (ISR) initiatives and Village Development Activities mainly focus on Education, waste management, livelihood and legal aid by working with Self Help Groups (SHGs), and various other important stakeholders in the villages.

Installation of Nisargalaxmi waste management unit at Housing societies in Sus and Lavale villages

Workshop on segregation and disposal of waste conducted at Lavale gram panchayat

Intervention Undertaken in the Villages: The activities include village cleanliness drives, awareness sessions in the schools, drawing competition, distribution of sanitary napkins, generating awareness regarding menstrual health etc.

Outcomes

- Combined strength of all campuses is around 20,087students
- The University has a Symbiosis Centre for Health care with residential medical staff
- The kitchens at all the hostels are mechanized and well equipped with modern cooking amenities
- The University has established a research centre called Symbiosis Centre for Waste Resource Management (SCWRM) dedicated to promote importance of waste management and adopts various techniques of waste handling
- The university has installed BARC technology based, two 'Nisargruna' biogas plants of 1ton capacity each for processing solid waste
- Biodegradable solid waste is processed using biogas as well as composting technologies
- 'Biocrux' unit, a PET bottle shredding machine for primary processing of plastic bottles and beverage bottles for further recycling
- Sewage treatment plant installed at Lavale campus for about 190 KLD. 90% of waste water is recycled and reused for secondary applications such as flushing, gardening and other activities
- Solar panels with a capacity to generate over 2.5 MW solar power are installed all across university campuses
- University has constituted a Bio-diversity cell, which takes care of awareness, conservation, education and research in the area of Bio-diversity
- The University has launched Symbiosis Community Outreach Programme and Extension (SCOPE) with the objective of positively impacting the community around the University
- Family Doctor Clinic (FDC) and Mobile Medical Unit (MMU) were launched in the Mulshi block of Pune district catering about 14 villages in the area
- Institutional Social Responsibility (ISR) initiatives and Village Development Activities mainly focus on Education, waste management, livelihood and legal aid by working with Self Help Groups (SHGs)
- The various activities in the adopted village include cleanliness drives, awareness sessions in the schools, drawing competition, distribution of sanitary napkins and generating awareness regarding menstrual health

Sri Krishna Arts and Science College

Coimbatore Tamil Nadu

Sri Krishna Arts and Science College, established in the year 1997, is committed to academic excellence with upgradation of facilities, placement opportunities and Industry-Institution interaction. The Institution sprawled across 14.17 acres of land with state-of-the-art-buildings of about 60,051 Sq.mts, has 55 percent green coverage area. The College has secured 4th position in Institutional Swachhta Ranking under Residential College Category in the year 2018. The College has 7945 students and 395 faculty members.

Student Strength	**7945**
Faculty Strength	**395**

Residential Facilities

The campus has separate, modern and hygienic accommodation facilities for boys and girls. The student/toilet ratio in hostel is 1:4 for boys and 1:3 for girls. Both Indian and European closets are fitted in rest rooms and the flooring of toilets is made with vitrified tiles. Louvre glasses and exhaust fans are fitted in the toilets for proper ventilation, and all the toilets have tissue dispensers and hand disinfectants. Separate toilets are available for physically challenged people. Girls' toilets are equipped with napkin vending machine and incinerator. The campus has 6 Bore wells each of approximately 650 ft. and it provides continuous water supply for cleaning, gardening and other daily works in the campus. A Reverse Osmosis plant is installed to ensure the supply of pure drinking water.

Campus Greenery

The College campus has lush green area. Different varieties of fauna and ornamental plants can be found in the college. Many eco-drives have been initiated by the Institution to keep the campus litter free. The students are oriented and sensitized to preserve the foliage of the campus. Signage boards have been kept in strategic locations to guide the students to dispose litters in the designated areas. The maintenance staff uses equipment such as lawn mowers and sprinklers to keep the campus green.

45 Rain Water Percolation Pits with the dimensions of 100 ft depth and 6.5 inches diameter were drilled and erected with perforated casing pipe to efficiently harvest rain water and improve the ground water level



Solid and Liquid Waste Management

The college has adopted scientific methods to manage solid, liquid and E-waste. Vermi composting process is used to process the garden remains, waste foods and vegetables. Other solid wastes such as papers and stationary are conflated and handed over to ITC for recycling, as a part of Wellbeing Out of Waste (WOW) initiative. All the liquid waste produced from toilets and cafeteria is duly processed in the modern Sewage Treatment Plan (STP) housed inside the campus. All the e-wastes are collected and disposed through government licensed vendor.



Innovative Usage of Technology

To harness solar energy, 2 solar water heating systems has been installed in the hostels with 3000 liters capacity each for cooking and bathing. This has reduced the electricity consumption up to 7500 units. 2KWp photovoltaic powered solar LED lamps have been installed across the college campus.

To stress the need to control pollution and carbon emission; the College observes one day in a month as 'No Engine Day' to encourage the students and faculty members to shun their private vehicles and use the public transport or bicycle to reach the college.

Adopted Villages: The College has adopted 5 villages in Coimbatore district in order to improve the overall economic and social condition of the villages by promoting cleanliness and ensuring the well-being of the inhabitants. The college has been selected under Swachhta Action Plan- 2019, and extends its activities to the villages in the district.

Families Benefited: Over 2000 families are directly benefitted by the initiatives of the college

Intervention Undertaken in the Villages:

- SKASC has taken up a case study of waste management in and around the district of Coimbatore. The result of the study will form a part of the MBA Waste Management course, proposed by MHRD.
- The college has undertaken social upliftment initiatives, like construction of toilets, awareness rallies, skits, tree plantation, medical camps, nukkad natak, waste management awareness and awareness program on open defecation
- After the intervention programs undertaken by the college, Mugasimangalam village under Alanthurai Urban Local Body and Pooluvapatti Urban Local Body have obtained Open Defecation Free Status from the Quality Council of India.

Outcomes

- The Institution sprawled across 14.17 acres of land and has 55 percent green coverage area
- The College has 7945 students and 395 faculty members
- The College has secured 4th position in Institutional Swachhta Ranking under Residential College Category in the year 2018
- The campus has separate, modern and hygienic accommodation facilities for boys and girls
- The student/toilet ratio in hostel is 1:4 for boys and 1:3 for girls
- Separate toilets are available for physically challenged people. Girls' toilets are equipped with napkin vending machine and incinerator
- 6 Bore wells each of approximately 650 ft. provide continuous water supply for cleaning, gardening and other daily works in the campus.
- The maintenance staff uses equipment such as lawn mowers and sprinklers to keep the campus green
- A Reverse Osmosis plant is installed to ensure the supply of pure drinking water
- Vermi composting process is used to process the garden remains, waste foods and vegetables

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Shoolini University of Biotechnology and Management Sciences Solan Himachal Pradesh

Shoolini University has an H-Index of ≥ 45 with a NAAC B++ grade. The university is UGC Approved & ISO Certified 9001:2008. The university runs Himachal's first Government of India food testing laboratory and works as a nodal centre for institutions such as IIT Bombay, IIT Kharagpur and TCS. The University has evolved a unique pedagogy comprising an eUNIV for online access, a skills-based SPRINT program, writing seminars, open electives, flexible learning and by incorporating liberal arts.

Student Strength	**2800**
Faculty Strength	**193**

Residential Facilities

The total number of hostels is seven, 2 for girls and 5 for boys. Students living in the hostel are nearly 1656 in number. There are 204 toilets with 102 urinal pods for male and 198 toilets for female students. All toilets have western WCs and are built to international hygiene standards. Toilets are cleaned three times a day. Running water is supplied 24 hours a day with separate water distribution systems for WCs, bathing and drinking purposes. Hot water is provided 24X7 using solar heated water systems.

Dining Hall in the Hostel

Hostel Kitchen Facilities

All the hostels have separate kitchens with Solar Steam cooking facilities. Kitchens are modern, ventilated, and use semi-automated cooking and cleaning systems and have appropriate fire-fighting equipment. Mess in the hostels are built and designed along the lines of McDonald Cafes.

Kitchen Area with Chimney

Campus Greenery

Shoolini University maintains a resort type environment, with over 80 percent greenery and more than 400 plant and tree species on its 20 acre campus. The University plants over 5,000 trees per year under its Myra Arboretum Initiative. In addition, Shoolini has multiple poly-houses, tree-houses, nurseries and farms across its campus. Recycled STP water and water harvesting systems are used along with drip irrigation and sprinkler mechanisms to maintain a real green campus.

Campus Greenery

Solid and Liquid Waste Management

Shoolini has over 700 colour coded dustbins for collection of solid waste (red, blue and green) placed across the campus. The university has two vermi-compost processing pits that recycle non-toxic biodegradable waste that is used for gardening and farming purposes. Non-biodegradable waste is collected and processed at Solan's municipal committee solid waste plant. Bio-medical waste is outsourced to a specialist HP State Pollution Board recognized company.

Nearly, 200,000 liters/day of liquid waste water is discharged which is treated at the Sewage Treatment (STP) and Effluent Treatment Plants (ETP), and then recycled. Approximately 200,000 liters of waste water is processed every day, of which 75,000 liters of recycled water is used for daily irrigation purpose. The STP and ETP plants are regularly inspected by the HP State Pollution Board.

Solid waste treatment

Liquid waste treatment

Solar Power

Shoolini University has installed four solar farms with a capacity of 887.79 Mwh. The photo voltaic solar power system produces over 125% of the power usage by the university. In addition, hostel kitchens are equipped with a solar steam power cooking plant and solar water heating systems.

Solar Panels

Adopted Villages: Shoolini University adopted six villages

1. Manjholi
2. Bajhol
3. Kiar
4. Sultapur
5. Tatul and
6. Barog

All villages are located in the district Solan, Himachal Pradesh. In addition, the university has also adopted a single primary school Bajhol.

Families Benefited: Nearly, over 200 families across the six villages consisting of approximately over 1000 people have been covered by the effort.

Interventions Undertaken in the Villages:

Activities undertaken included cleaning of primary water sources in and around the villages, help the villages adopt three-tier garbage disposable systems and to recycle bio-degradable waste, to develop a plan for solar lighting on roads connecting the villages, develop a proper drainage system and implement rain water harvesting procedures in the adopted villages. Swachh Bharat cleanliness campaigns and plantation of trees of economic importance was also organized and initiated.

Shoolini's Biggest Swachhta Success Story

Shoolini University has implemented over 700 locally made and patented dustbins (a dustbin at line of sight) across the campus. The dustbins are branded as Swachh Shoolini and color coded (red, blue and green) for segregation of different types of waste. This initiative has had a huge impact- no garbage was littered, and more importantly students and staff changed their attitude towards using dustbins for garbage disposal.

Bauri at Village Tatool Prior to Shoolini Intervention

Cleaning Bauri Initiative

Bauri post cleaning

Toilet in Village Barog Pre-Cleaning

Toilet in Village Barog Post Cleaning

Cleaning of Rivulet in Village Bajhol

Tree plantation in village Bajhol

Shoolini Special Initiative, 700 Patented Dustbins across Campus

Outcomes

- Hostels provided with toilets fitted with western WCs and maintain international hygiene standards
- Provision of separate water distribution systems for WCs, bathing and drinking purposes
- Kitchens are modern, ventilated, and use semi-automated cooking and cleaning systems and have appropriate fire-fighting equipment
- Utilization of drip irrigation and sprinkler mechanisms to maintain a real green campus
- Use of vermi-compost processing pits to recycle non-toxic biodegradable waste used for gardening and farming purposes
- Recycling of liquid waste water treated at the Sewage Treatment (STP) and Effluent Treatment Plants (ETP).
- Installation of four solar farms with a capacity of 887.79 MWH
- Hostel kitchens equipped with a solar steam power cooking plant and solar water heating systems.
- Patent of color coded bins used for segregation of different types of waste.

Sri Sathya Sai Institute of Higher Learning (Deemed-to-be-University) Anantapur Andhra Pradesh

Sri Sathya Sai Institute of Higher Learning (also called **Sri Sathya Sai University** (Deemed to be University)) is an institute of higher education located in Anantapur District, Andhra Pradesh, India. It was founded by Sri Sathya Sai Baba in 31 October 1981. The university is based on the gurukula system of ancient India wherein education is provided free from kindergarten to post graduation. All students, from first grade to postgraduate studies, stay in the hostel. It has four campuses:

1) Prasanthi Nilayam Campus (main campus) for men located at Puttaparthi, Anantapur District, Andhra Pradesh;
2) Anantapur Campus (off-campus) for women located at Anantapur, Andhra Pradesh;
3) Brindavan Campus (off-campus) for men located at Whitefield, Kadugodi, Bangalore, Karnataka; and
4) Muddenahalli Campus (off-campus) for men located at Muddenahalli, Chickballapur, Karnataka.

Student Strength	**1406**
Faculty Strength	**182**

Residential Facilities

All the hostels have adequate modern toilets with 24x7 water supply systems.

Solid Waste Management

The solid biological waste is regularly sent for incineration and safely disposed by government approved vendors in collaboration with SSSIHMS. If required, the solid biological waste is autoclaved and decontaminated before sending for incineration. The shredder is used to shred dry leaves and twigs and the shredded material, organic manure is used for plants in the kitchen garden. The solid chemical waste is segregated and collected for disposal through third party agency. To encourage the students to convert waste into wealth or to reuse waste creatively, the Fine Arts Department of the Campus conducts competitions like 'Best of Waste,' and also trains the students to convert Waste into Wealth by imparting certain skills to them.

Three compost pits have been created in the premises of the college to handle all dried foliage: leaves twigs and branches of trees and decompose them into manure that is subsequently used in the college garden. There are two vermi compost units in the Campus. One is maintained in the Hostel, and the other in the College.

Liquid Waste Management

Biological liquid waste is autoclaved and subsequently disposed for further processing by waste treatment plants. Some of the biological wastes like Lenti-virus and Ethidium bromide (EtBr) are being treated appropriately before sending it for further processing to the waste treatment plant.

The waste water from the centralized RO water plant on the campus is used to wash all the big utensils in the hostel and partly diverted to the hostel kitchen garden.

Chemical effluents from various labs are segregated and pumped into evaporative tanks. The sludge is periodically disposed in a scientific manner through third party agencies.

In the Brindavan campus, the hostel wet waste is managed on the premises itself. The University has Aaga composters in which the wet waste like vegetable peels, waste from kitchen, leftover food from dining hall, etc. are all composted. The wet waste is mixed with cocopeat and a culture supplied by the company Daily Dump. The mixture is then loaded into the composter and allowed to compost. The manure harvested is either supplied to the vegetable garden at the Sri Sathya Sai Institute of Higher Medical Sciences or used in the hostel garden. The leachate that is drained every day is particularly useful for plants. The entire process is managed by the students themselves.

E-Waste Management

The University has opted for buy back or exchange of the electronic or computer equipment from different vendors. This helps in preventing disposal of the e-waste directly into the environment and also helps in recycling the different components and spare parts of the used equipment.

Hostel Kitchen Facilities

All the hostels of four Campuses of the Institute have well furnished dining halls and cooking area.

Campus Greenery

All the campuses are located in green and serene surroundings. The students take up tree plantation initiatives from time to time. 70-80% of the campuses are under green cover. The campuses have medicinal, fruit bearing, flowering and timber giving plants in the campus. These are classified by the department of biosciences of the institute.

Campuses have a dedicated gardening team on rolls to take care of the maintenance of the green areas. Sprinklers available are - rain guns, micro and macro sprinklers. The University has taken steps to make the campus plastic free. As part of the village empowerment programme, the department of Chemistry is in the process of procuring a machine which will convert the plastic into kerosene grade fuel. Once functional, this will be helpful to make Puttaparthi and villages around it plastic free and also will provide fuel for various household purposes.

Solar Power

Solar photovoltaic system (SPV) is installed on the roof top of buildings. The SPV system generates approximately 10 lakh units per year. The administrative building of the university has LED lamps. The University is in the process of switching over to the LED lighting system in all campuses and will complete this by the end of 2019. Open land is also available for installation of Ground mounted SPV System.

Village Empowerment Programme Anantapur Campus, 15 Sep 2018

The MBA students of the campus, along with three teachers took posters related to government schemes and agricultural practices which would be beneficial for the villagers. Ongoing efforts are being made to empower the villagers to solve issues like poor hygiene, high level of school dropouts, lack of opportunities to develop basic skills appropriately.

Cheyutha (Educational Support) Anantapur Campus, ongoing

Cheyutha project is an initiative by the postgraduate students of the Anantapur Campus, SSSIHL to conduct tuitions to the school going children of campus contingent workers and semi-literate adults. They are trained in basic reading, writing and arithmetic skill development.

Narayana Seva, Anantapur Campus, every month

Each month food packets are distributed to the needy poor in the slums around Anantapur town. The monthly Narayana Seva activity sees a team of cooks, campus workers, rickshaw drivers and students come together to deliver 25 kg of Pulihora (approximately 270-300 packets to these marginalised citizens of society.

Adoption of Leper Colony Anantapur Campus, 1986 to date

Project Love Stream is a long-standing example of service in action and how a little love and care have the power to create long lasting benefits to generations of families. The students and staff of the Anantapur Campus Girls hostel have adopted a leper colony situated in the outskirts of the town of Anantapur since 1986 with the objective of making the inmates of the colony as self-sufficient as possible. Under the project known as Love Stream, the inmates of Girls hostel made a variety of handicrafts like cards, bookmarks, rakhis and friendship bands. These are then sold to the inmates of the hostel and the amount thus raised is utilized to buy provisions for the inmates of the leper colony on a monthly basis. Apart from contributing a small share to their basic requirements like provision of water connections, bathroom doors and fodder for the cows maintained by them, in 2018/19, thirty blankets were distributed to the inmates.

Celebrating Christmas with village children Muddenahalli Campus, Christmas 2018

The students offered lighted candles to the children who participated in the bhajan session held at the local Hanuman temple. After the prayers, the children were all offered chocolates as Christmas gifts.

Old Age Home Visit Muddenahalli Campus, July 2018 and April 2019

Students of the campus visited the Sai Dwarakamayee Vriddhashrama, an old age home at Sultanpet, Nandi village, about four kilometres from Muddenahalli. The resident population has now swelled to about fifty residents. The students spent about an hour interacting with the aged elders, during which they sang songs and listened to the experiences of the residents. The elders too enthusiastically sang and talked to the young students. For those residents who could not come to the prayer hall, the students visited them in their living rooms. The visit taught students the value of empathy and respect for elders.

Adopted Villages: The University has adopted 5 villages namely

1. Narsimpalli
2. Bontalapalli
3. Marlapalli
4. Upparapalli in Anantapur district and
5. Leper Colony (Anantapur Town)

Families Benefited: Population covered by these service activities is nearly 6000.

Intervention Undertaken in the Villages

The University has regularly been assisting and working with the villagers in achieving self-sustainability in four areas

Greenery: Plantation of trees, beautification of the village and surroundings

Education: This includes both spiritual (values-based training through art form and other means) and secular (skills development, youth employability, awareness of Govt. programmes, etc.),

Health & Hygiene: Water harvesting, drip irrigation, organic/zero budget farming, etc.,

Sports and Fitness: The students have removed weeds from the open areas. They played volleyball match with the village youth. Conducted different races (such as Sack race, lemon-spoon race etc.) for children aged 5-10 years, conducted games based on jumping and balancing. They were also schooled in basic health areas and taught a few yogic postures such as the Surya Namaskar.

Education: Maths, Science and fun games, as well as Bal Vikas for Primary school, II to X standard kids were conducted. This included training in basic Mathematics using a geoboard. Students prepared some educational kits and gifted them to the school.

Music: Bhajan Singing, Vedam chanting, flute renditions, teaching the basics of Music (by a Professor at the Dept. of Music), and teaching musical instruments such as Kanjeeea and Talam.

Cleanliness Drive: The students organized a game on 'Waste Plastic Picking' with all children of the village and our students. Students exhaustively cleaned walls of various temples and mosques in the

Villages, Anganwadis (rural child care centers), play areas and even wells that had been used for dumping the waste. Flowering plants were then planted across the villages.

Villagers were also given basic education on the importance of hygiene and cleanliness.

Plumbing work: Students took on a host of civil and plumbing duties. From changing of a 3-inch outlet pipe from the 2000 liter main storage tank to laying a CPVC pipeline for the school underground water storage tank. Training on Self Reliance activities like Maintenance training which they took part in at the hostel helped them in their work. They fixed overhead tanks, constructed urinals and toilets (including tiling work), fixed leaking taps across the villages and also assisted in fixing mesh windows and doors to prevent unwanted guests such as insects and reptiles into washroom areas.

Surveys: Students were split into different teams to conduct comprehensive individual and household surveys for issues such as the number of elderly folks and how to serve them better on future visits, what are their immediate needs, etc. They also conducted a data survey of all households of the villages to map the socio-economic and demographic challenges. The Chemistry students performed certain experiments as a preparatory phase to check for the efficacy of usage of ground shells at the villages.

Outcomes

- All the hostels have adequate modern toilets with 24x7 water supply systems
- The solid biological waste is regularly sent for incineration and safely disposed by government approved vendors
- The solid biological waste is autoclaved and decontaminated before sending for incineration
- Solid chemical waste is segregated and collected for disposal through third party agency
- The Fine Arts Department of the Campus conducts competitions like ‘Best of Waste,’ and also trains the students to convert Waste into Wealth
- There are two vermi compost units in the Campus
- Waste water from the centralized RO water plant on the campus is used to wash all the big utensils in the hostel and partly diverted to the hostel kitchen garden
- Chemical effluents from various labs are segregated and pumped into evaporative tanks.

- The sludge is periodically disposed in a scientific manner through third party agencies
- wet waste like vegetable peels, waste from kitchen, leftover food from dining hall, etc. are all composted in Aaga composters
- All the hostels of four Campuses of the Institute have well-furnished dining halls and cooking area.
- 70-80% of the campuses are under green cover
- The department of Chemistry is in the process of procuring a machine which will convert the plastic into kerosene grade fuel
- Solar photovoltaic system (SPV) is installed on the roof top of buildings.
- The SPV system generates approximately 10 lakh units per year
- The University is in the process of switching over to the LED lighting system in all campuses and will complete this by the end of 2019
- The University has regularly been assisting and working with the villagers in achieving self-sustainability in four areas: Greenery, Education, Sports and Fitness, Health and Hygiene

St. Philomena College Puttur Dakshina Kannada Karnataka

St. Philomena College was founded by Monsignor Antony Patrao in the year 1958. The college offers various Under-graduate and Post-graduate courses. The total student strength for UG courses is 1437 with 659 male and 814 female students. In Post-Graduate courses the total student strength is 291 comprising of 47 male and 244 female students. The total teaching staff for the UG course is 69 of whom 36 are male and 33 are female staff. The administrative staff is 8 in number and support staff are 13 with 4 male and 4 female and 7 male and 6 females respectively. The total teaching staff for the PG course is 36 in number with 22 male and 14 females. The administrative staff is and support staff are 3, with 2 male and 2 female and 1 male and 2 female staff respectively.

Residential Facilities

St Philomena College, Puttur consists of two separate hostels for men and women students. Well-furnished hostels with modern amenities cater to the needs of the students. Adequate numbers of well-ventilated and clean toilets are maintained in the campus. Twenty-four-hour water supply is available from five tube wells. Recharging mechanism of tube wells has been adopted. The rain water collected is stored and used in toilets. Water connection is also availed from Municipal Corporation. Clean drinking water facilities are installed in the campus. Utmost care has been taken in the campus to save each drop of water. “Save water” is the dictum of the institution.

Solid and Liquid Waste Management

The college has adopted the strategies to segregate the wastes of the campus in to different categories as bio-degradable waste (food waste, garden waste and paper), recyclable waste (paper, glass, plastic, metal etc.), inert wastes (construction and demolition wastes, dirt, rocks and debris) and hazardous wastes (e-wastes, paints, chemicals, light-bulbs, pesticides). Waste is collected and removed by the Municipal Corporation. The College has installed vermin-composting unit where the organic wastes are used for soil composting. The Department of Zoology conducts a certificate course on 'Vermi-Technology'. Vehicles are banned from entering the main campus. The Institution seeks to attain carbon neutral status by reducing and avoiding carbon emissions. Managing wastes of all types to clean the campus is given utmost importance by the institution.

Vermi-Composting

Collection of Waste Water

Hostel Kitchen Facilities

Hostels have clean, hygienic modern kitchen facilities. Clean and sterilized apparels are provided to cooks and servers. Utmost care is taken in food preparation using modern cooking equipments and with proper arrangements. LPG facility is employed for cooking. The hostel dining rooms are sufficiently large with tiled flooring, modern furniture, proper ventilation and ambience.

Hostel Kitchen

Campus Greenery

Extent of greenery in the college is more than 30% of the total campus area. There are about 2000 plants consisting of 132 species such as mahogany, sandalwood, teak, mango, jackfruit, areca and coconut trees make the campus most serene. In addition, there are many fruit bearing trees and medicinal plants. The lawns and gardens at the entrance, hostel premises, near priests' residence are

well maintained. The College also has a separate Botanical garden. There is dedicated staff for the maintenance of lawns and gardens. NSS, Rovers and Rangers, Student Union and social work students plant new plants every year during Vana Mahotsav Programme. Nearly, 46 varieties of fruit saplings were planted within a span of two years.

Solar Power

Solar water heating (SWH) system has been installed in the hostels for men and women to supply hot water to the inmates. The management has planned to install roof top solar panels on the main college building, PG building, auditorium and library building within a span of one or two years to generate electric power. Fluorescent and LED lamps are installed to save the power.

Adopted village: Peraje is a village which is at a distance of 46 km from Puttur, located in Madikeri Taluk of Kodagu district. Main occupation of the village is agriculture. On the basis of minor research done by social work students and staff, detailed plans were chalked out to develop the community.

Families Benefited: About 928 families are present in the adopted village.

Intervention Undertaken in the Villages:

Many awareness programmes were conducted, self-employment trainings were given, Science model exhibition was organized to inculcate scientific temper. Agricultural training programmes were organized in the village. These programmes greatly benefitted the marginalised sections of the adopted Peraje village in enhancing their knowledge and skills. Motivated by skill development programmes more than 20 families started to cultivate mushroom in which they achieved a considerable progress. In Peraje dairy farming is also a source of income for the woman which was not done scientifically earlier. Along with Karnataka Milk Federation, the College has organized training programme on dairy farming to the farmers, which has enhanced their income. The study materials were supplied to the students of Kundadu, a remote area in Peraje village. Art and craft training, health and hygiene related training were also given to the students. To create awareness about Swachhta among the rural people, the college has conducted street plays in different places of Peraje village. More than 30 families opted honey farming for their livelihood. The college has been instrumental in enhancing the financial status of the village.

Mushroom Cultivation


Implementation of Swachhta Cleaning Program



Outcomes

- There are separate hostels for men and women students that are furnished and well-ventilated
- Solid waste is collected and segregated as bio-degradable and non-biodegradable wastes
- Vermin-composting unit has been installed where the organic wastes are used for soil composting
- The kitchens are clean and hygienic and provided with modern cooking facilities
- Greenery consists of different plant species and well-maintained lawns and gardens
- Solar water heating (SWH) system has been installed in the hostels for men and women to supply hot water
- Fluorescent and LED lamps are installed to save the power
- The campus has undertaken a number of Swachhta activities such as mushroom cultivation, dairy farming, art and craft training programs etc

SRM Institute of Science and Technology (SRM IST)
Kattankulathur Tamil Nadu

SRM Institute of Science and Technology (formerly known as SRM University) is one of the top ranking universities in India with over 32073 Students and more than 2296 in Kattankulathur the campus. The courses offered range from undergraduate, postgraduate and doctoral programs in Engineering, Management, Medicine and Health sciences, and Science and Humanities. About 80% of the students come from Tamil Nadu, with good mix of students from other countries such as Europe and China. SRM IST is spread over a 600 acre campus and is replete with a variety of activities.

SRMIST has been the active Organization partner with IIT, Bombay for Gandhi Global Solar Yatra – Student Solar Ambassador Workshop 2019 to be launched globally on 02.10.2019.

Solid and Liquid Waste Management

The waste generated from the kitchen and hostel, is segregated as wet and dry waste and sent to a solid waste management yard for segregation in partnership with the NGO “Hand in Hand”.

There are 3 STP plants with a capacity of 7 MLD. These are located at 3 locations. They recycle 100% of the waste water. This recycled water (7 million l/day) is used for toilet flushes, gardening, and recharging groundwater. The excess water is stored in a lagoon inside the campus which is used during water scarcity.

There are 12,000 students in the hostels across the campus. The food waste generated from these hostels is sent to 5 different bio gas plants /each 90m^3 capacity. This bio gas is used in the hostel mess for cooking purpose. A bio-methanation plant was installed recently in the campus. This plant is capable of replacing 90 kg of LPG gas per day.

Hostel Kitchen Facilities

The hostel at SRMIST is modern with hi-tech facilities like chimney, solar steam cooking and large dining area with granite flooring sufficient tables and chairs. These are cleaned three times a day. There are RO Plants located in various places which provide 4 lakhs litres of RO drinking water /day to the hostels and academic places for students and faculties.

Campus Greenery

SRMIST has 30 percent greenery which is visible in the football turf that measures 3.5 acres. They have sufficient sprinkler facility to keep the turf green.

Solar Power

The campus has installed Solar panels of 814 kW capacities. These are major source of renewable energy with grid connection to the main power supply at SRMIST. The installation of Solar water heaters in all hostels and solar steam cooking system in mess block has saved LPG gas use to a large extent.

Adopted Villages: SRMIST has adopted five villages,

1. Orathur, Nattarasanpattu - Kundrathur Block,
2. Thenmelpakkam, Anjur, Pattaravakkam – Kattankulathur Block, Kancheepuram District) and About 400 to 500 households / village

Families Benefited: 2,500

Intervention Undertaken in the Villages: Under this adoption drive, the villagers have been sensitized about sustainable development goals like clean environment, clean drinking water, Banning of plastic etc. The villagers have also been educated on waste disposal.

SRMIST has funds for development and customization of technology for the following projects

- Versatile Anaerobic reactor for households to yield biogas utilizing waste - for Orathur Village

- End-To-End integrated Rationing system for Distribution of Provisions -for Anjur Village
- Reverse osmosis plant for rural water Treatment –for Orathur village SRM IST Students conducted surveys in the village.
- Supplied electronic kits to the Science Lab of Government High School, Anjur. Electrical faults in the school buildings have been repaired and the drinking water pump was serviced.
- Supplied Desk/Benches to Thenmelpakkam Panchayat Union Elementary School.

Household survey

Solid waste compost pit

Versatile anaerobic reactor

Outcomes

- The university has its own water purification system along with water purifiers
- Solar water heaters are installed in all hostels and the mess
- A bio-methanation plant is installed which is capable of saving 90 kg of LPG gas per day
- The food waste generated from the university hostels is treated in 5 different bio gas plants /each 90m^3 capacity
- SRMIST has funds for development and customization of technology in villages
- The University has adopted 5 villages and the villagers have been sensitized about sustainable development goals like clean environment, clean drinking water, Banning of plastic etc.
- The University has educated villagers on waste disposal
- SRMIST has been the active Organization partner with IIT, Bombay for Gandhi Global Solar Yatra – Student Solar Ambassador Workshop 2019

SRM University Delhi-NCR Sonepat

The SRM Educational Group as a community have over 80,000 students and 4,500 staff spreading over seven campus in India. The SRM Group has earned the best teaching quality rating and a strong research record and offer a wide range of undergraduate, postgraduate and doctoral programs in Engineering & Technology, Management Studies, Medicine and Health Sciences, Law, and Science & Humanities. Today, our's is a broad-based, research intensive institution with a global reach.

Student Strength	**2136**
Faculty Strength	**211**

Residential Facilities

There are two separate blocks for boys and girls. In the hostel, there are separate toilet in each room on twin sharing basis and 24 hours water supply facility. The kitchen is situated on the ground floor of each hostel block.

Solid and Liquid Waste Management

The college has outsourced the facility to manage solid and liquid waste on the campus.

Campus Greenery

About 47% of the campus is green.

Solar Power

All street lights, building including academic, administrative and Hostel have LED Lighting system. It reduces 30% of energy usage & it gives better illumination.

Academic buildings are constructed with Tinted exterior glass technology for better illumination. Therefore less light is required in class rooms and labs.

750 KVAr with automated power factor correction technologised panel was installed for improving Power factor & Reducing lagging current losses & supplies required reactive power to the power system. Centralised air conditioning system is in usage.
A Proposal for 250 KW Solar power plant is in pipe line which is likely to be implemented in due course of time.

Adopted Villages: The University has adopted the following villages:

1. Jakholi
2. Seoli
3. Brahamanwas
4. Asawarpur
5. Patla in Sonepat district

Families Benefited: Over 600 families are directly benefitted by the initiatives of the college

Intervention Undertaken in the Villages:
The college has undertaken social upliftment initiatives, like construction of toilets, awareness rallies, skits, tree plantation, medical camps, nukkad natak, waste management awareness and awareness program on open defecation

Outcomes:

- There are two separate blocks for boys and girls. In the hostel, there are separate toilet in each room on twin sharing basis and 24 hours water supply facility.
- The college has outsourced the facility to manage solid and liquid waste on the campus.
- About 47% of the campus is green.
- All street lights, building including academic, administrative and Hostel have LED Lighting system. It reduces 30% of energy usage & it gives better illumination.
- The college has undertaken social upliftment initiatives, like construction of toilets, awareness rallies, skits, tree plantation, medical camps, nukkad natak, waste management awareness and awareness program on open defecation
- Over 600 families are directly benefitted by the initiatives of the college

Suresh Gyan Vihar University Jaipur Rajasthan

In 2017, Suresh Gyan Vihar University became the first and only state-private university in Rajasthan to be awarded NAAC "A" grade. NAAC council is the foremost agency of quality assurance devised by the Government of India and the "A" grade is a sign of ethics, quality and innovation to the utmost level. With 80 years of foundation of its parent institution, Suresh Gyan Vihar University has made its mark as one of the premier institutes of education and research.

Student Strength	**3,510**
Faculty Strength	**165**

Residential Facilities

The campus houses a total of six hostels for student's viz. two girls hostels and four boys hostels. All toilets installed are of Western Commode (WC) style with wall – fitted flushes, jets and toilet papers, along with hand washes, hand sanitisers, clean-looking mirrors for the wash basins. Toilets and wash basins are cleaned twice a day with industry – leading cleansers. 24 -hour running - water supply is ensured.

Campus Greenery

The university campus has 45 - 50% of lush greenery. There are nearly 4,600 trees of 95 different species including fruit, forest, xerophytic, medicinal, and pot plants. Regular watering, pruning and grass - cutting is done periodically. Drip irrigation by sprinkler system has been installed to facilitate efficient watering with minimal water wastage. Besides this, fisheries, dairy, poultry and apiculture are also being maintained.

Solid and Liquid Waste Management

Solid waste management is done by segregation of recyclable and non - recyclable waste. Kitchen waste is used for vermin-composting that is later used as manure. Non-biodegradable waste is disposed off through municipal corporation vehicles. An incinerator is utilized for disposal of used sanitary napkins in a hygienic and environmental – friendly manner.

Hostel Kitchen Facilities

The hostel kitchen is well – fitted with modern equipment such as requisite number of high capacity chimneys, machinery like Bain Merry, fresh air pressure AHUs and water coolers, which contribute majorly in enhancing efficiency and efficacy of chefs and allied staff, resulting in the smooth functioning of kitchen activities and to serve well - cooked, hygienic, and delicious meals to students and staff members in huge and well – lit dining areas. Dining halls are provided with comfortable seating.

Rain Water Harvesting

Rain water harvesting is followed at SGVU campus, based upon traditional Rajasthani practices. Rain water is harvested through ground water harvesting system, distributed in 5 structures connected through each University building. The overall water output is collected at a common “Bawri” (Pool) which in turn feeds the campus' “Talai” (Pond). The University's Solar Power generation is around 375 KW and the University achieves Grid Parity. The University has also adopted Hydroponics and Aquaponics as water-saving techniques of agricultural production, soil-less drip-based and equipped with the foggers and thermal sensors which are the twin practices of Hydroponics and Aquaponics ensure that the University remains carbon negative. In addition, the University has developed a modern Poly house in an area of 2000 Sq.m, in which crops are vertically grown and the irrigation needs are met through the neighbouring fish pond water that is harvested and circulated to the drip and fogger system.

Adopted Village: Suresh Gyan Vihar University has adopted Gram Panchayat Kacholiya (consisting of Rajpura, Maharajpura, Kishanpura and Dedpura), Tehsil Bassi, District Jaipur

Families Benefited: 1,600 families and 8,000 people.

Intervention Undertaken in the Villages: SGVU has adopted the aforementioned village with the aim of spreading awareness regarding education, health, cleanliness and hygiene. A 20 kilometre 100% open – defecation zone has been achieved in the area. SGVU is also providing 100% Scholarships for 24 students in various streams.

Outcomes

- There are nearly 4,600 trees of 95 different species including fruit, forest, xerophytic, medicinal, and pot plants
- Rain water harvesting is followed at SGVU campus, based upon traditional Rajasthani practices
- The University has developed a modern Poly house in an area of 2000 Sq.m, in which crops are vertically grown and the irrigation needs are met through the neighbouring fish pond water that is harvested and circulated to the drip and fogger system
- An incinerator is utilized for disposal of used sanitary napkins in a hygienic and environmental – friendly manner
- The college initiated the use of solar energy from 2014 with a capacity of 4 KV
- The college has the CFL bulbs with LED ones to save electricity
- Greenery consists of a wide variety of plant species and maintained by using drip irrigation
- Solid waste management is done by segregation of recyclable and non - recyclable waste
- Dining halls are provided with comfortable seating
- A Carbon negative campus is maintained by the practices of hydroponics and aquaponics
- Toilets and wash basins are clean and well-maintained with a 24 -hour running – water supply
- Swachhta activities were undertaken to create and spread awareness regarding education, health, cleanliness and hygiene in villages

Sri Ramakrishna College of Arts and Science (Autonomous) Coimbatore Tamil Nadu

Sri Ramakrishna College of Arts and Science is an Arts and Science institute in Coimbatore, Tamil Nadu, India. It was founded in 1987.The college is offering 30+ programmes in Arts, Humanities, Science, Commerce and Management domains. The college is accredited by NAAC with A grade. The college is ranked by NIRF as 69th best college in the country by MHRD, Government of India.

Student strength	**4401**
Staff	**257**
Total strength	**4658**

Residential Facilities

The campus has separate hostels for men and women with state of the art modern kitchen facilities. Hygienically maintained toilets with continuous water supply keep the campus well maintained. Solar water heaters are installed for hot water supply to the hostels.

Solid and Liquid Waste Management

The college takes measures to manage solid waste generated on campus by the method of segregation at the source. Separate bins for bio-degradable and non- biodegradable wastes. E-waste generated is dumped at collection units. Napkin dispensers and incinerators are also installed for proper handling of the waste. The campus has a centralized waste water management plant which is operational from September 2016 for liquid waste. The screening chamber with 13.6 KLD capacity and has a treatment capacity of 177Kld. About 50,000 litres of treated grey water is utilized for gardening.

Hostel Kitchen Facilities

The hostel kitchen is equipped with totally mechanized food preparation tools and modern cookware, steam generator, rice steamer, milk boiler, vegetable cutters, dosa and chapatti makers. Solar water heaters are used to generate hot water for cooking and cleaning purpose. Modern heavy duty chimneys are installed for proper exhaust of the smoke and vapor generated. The kitchen facilities are FSSAI certified.

Campus Greenery

The lush green cover on the campus spans across 40% of the area housing a variety of plants of around 84 species, which adds to the biodiversity of the college campus. Sprinklers are used to spray water to the plants. A cricket ground is also maintained on a 80 yard lawn.

Solar Power

A set of 80 solar panels are installed on campus with a capacity of 20 kVA and produce nearly28,000 watts of power. A total of 360 watts/ day power is generated to meet 25% of the campus' energy requirement. Smart power controllers to remotely switch on and off the entire lighting system, developed by innovation cell student start-up company.

Adopted Village: The College has adopted 7 villages in Coimbatore district located around the campus

Families Benefited: Around 2.6 lakh across all sections of society

Intervention Undertaken in the Villages:

The College has conducted various activities such as rallies, campaigns against usage of single use plastic, tree plantation, waste collection campaigns, recycling of e-waste, awareness creation on importance of hygiene. In addition, the college has taken initiatives to cover several government schemes such as Swachh Bharat Abhiyaan, etc. in the adopted villages.

As a token of appreciation for the efforts taken by college towards uplifting the society, they were recognized as Swachh Bharat ambassador in the area. They also hold a Guinness world record for signing most organ donors in 8 hours. In addition, Coimbatore Municipal Corporation has commended the efforts taken by the college and awarded the college for their extraneous efforts.

Outcomes

- The campus has separate hostels for men and women with state of the art modern kitchen facilities Hygienically maintained toilets with continuous water supply keep the campus well maintained
- Solar water heaters are installed for hot water supply to the hostels.
- Separate bins for bio-degradable and non- biodegradable wastes
- E-waste generated is dumped at collection units
- Installation of sanitary napkin dispensers and incinerators
- The campus has a centralized waste water management plant which is operational from September 2016 for liquid waste
- 50,000 litres of treated grey water is utilized for gardening
- The hostel kitchen is equipped with totally mechanized food preparation tools and modern cookware
- Solar water heaters are used to generate hot water for cooking and cleaning purpose
- Modern heavy duty chimneys are installed for ventilation
- The kitchen facilities are FSSAI certified
- The campus is 40% green with 84 species of plants
- A set of 80 solar panels are installed on campus with a capacity of 20 kVA and produce nearly28,000 watts of power
- Smart power controllers to remotely switch on and off the entire lighting system, developed by innovation cell student start-up company
- The College has conducted various activities such as rallies, campaigns against usage of single use plastic, tree plantation, waste collection campaigns, recycling of e-waste, awareness creation on importance of hygiene in the adopted villages

Sumandeep Vidyapeeth (Deemed to be University)
Vadodara Gujarat

Sumandeep Vidyapeeth is private, deemed university located in Piparia, Wagodia, Vadodara, Gujarat, India.It is accredited "A" grade by NAAC

Total Student strength	**3058**
Total Faculty strength	**520**
Non-teaching	**1310**

Residential Facilities

There are total 07 Hostels with the facility of 1897 number of toilets available for Male and Female students, Disabled people are facilitated with the specially built toilets. Toilets at all the constituents Institutes, Hospital, Hostels, Administrative building, Common areas, Auditorium, Staff Quarters, Sports complex, Conventional Hall, University building etc are aided with the properly built toilets. The institution has 24x7 fresh water supply. For drinking water, Reverse Osmosis (RO) system is in place. The used water/ waste water is treated through Sewage Treatment Plant and the same is used for gardens areas, for which sprinkler and drip system is adopted.

Hostel Kitchen Facilities

The Institution has a Student Mess with sitting capacity of more than 1500 students at any given time. The Student Mess area including kitchen is always maintained with proper Hygiene and cleanliness. The Mess kitchen is well equipped with modern equipment such as Digital stove, Chimney of high capacity and electronic equipment for washing and cutting Vegetables and fruits. The dining hall is used by the students from all the constituent Institutes of Sumandeep Vidyapeeth. The hall is always maintained with cleanliness and hygiene. The dining hall is prepared for all types of meals.

Cooking Area and Chimney

Dining Hall

Solid and Liquid Waste Management

The Institution has a strong waste management system which includes managing the waste from its inception till its final disposal. This includes the collection, transport, treatment and disposal of waste, together with monitoring and regulation of the waste management process. The Institution has installed a Bio-gas plant of capacity 60 cubic meter. The Solid and liquid kitchen food waste is

utilized for producing Bio-gas. Averagely 15-25 kg of gas is generated and same is used for cooking purpose in student mess.

Functional Biogas Unit

The institution also has installed Sewage Treatment Plant to recycle the waste water of the campus, which is used in the garden areas and toilet flush. The recycled water is also subjected to ultra-filtration process; which is then used in the Central Air conditioned plant.

The general solid waste collected from different areas of the campus and is disposed through an agency **"**Simran Carting Services", for 7-8 Years. Similarly, the Bio-medical waste generated from Hospitals disposed through an agency "Quantum Environment", for 4-5 years. The biodegradable material, dead and dried leaves are used for preparing compost.

Sewage Treatment Plant

Campus Greenery

The campus has green, lush gardens with trees of various species, balancing the environment in the campus. More than 30% of the campus is utilized for green initiatives. The biodiversity is balanced in the campus making it perfectly habitable. The Institution has incorporated the importance and significance of biodiversity in the curriculum of the program / courses undertaken in the academic field. All the avenues and roads within the University campus are therefore adorned with wide range of different plants and trees bearing emerald green leaves, beautiful flowers and gardens. Green cover of the campus is more than 55,000sq.m. The campus has sprinkler and drip irrigation system for watering gardens and plants throughout the campus is actively in place. All water used in this system is recycled water which is treated in Sewage Treatment Plant. There is in-house manpower and ultra-modern equipment's for garden maintenance.

Lush Green Area with Water Sprinkler

Solar Power

The campus area is exposed to abundant sunlight which results in abundant solar energy. The Institution has installed a solar electricity generation plant/ system bearing the capacity of 60Kv, which partly fulfills the need of required electricity. The Institution in near future has plans of expansion in installing multiple solar panels for generating high capacity energy.

Solar Panels on the Terrace of Multiple Buildings

Adopted Villages

The institute adopted 6 villages namely

1. Bahadapur
2. Golagamdi
3. Raghunathpur,
4. Manjrol
5. Lotiya
6. Akhatyarpura of (Tehsil. Sankedha, Dist. Chhotaudepur, Gujarat)

Families Benefited: Approximately 12,040 people are covered by the efforts of Institution.

Intervention Undertaken in the Villages: The Institution has undertaken various measures in balancing the ecosystem, in and around the institution and in the adopted villages. The cleanliness drive, tree plantation, awareness programs, rain water harvesting, recycling of waste water etc. are regularly conducted in the adopted villages. Before the adoption, there was lack of awareness

among the villagers about the environment friendliness, pollution free environment, importance of trees for human survival etc. After the adoption of these villages and after undertaking awareness programs, there is a significant improvement in the knowledge about the need of environment friendliness. The villagers have dismissed the usage of polythene bags and are avoiding one time plastic item usage. The villagers of all the adopted villages are regularly conducting cleanliness drive in their neighbourhoods and have undertaken green initiatives.

Outcomes

- The Institute has 1897 toilets for 7 hostels, separate toilets for male and female students and specially built toilets for disabled people
- The campus kitchen is well equipped with Chimneys, Digital stoves and electronic equipment for washing and cutting Vegetables and fruits.
- The institution manages waste from its inception till final disposal
- The institution has installed a Bio-gas plant of capacity 60 cubic meter
- The Solid and liquid kitchen food waste is utilized for producing Bio-gas
- Waste water from the Sewage Treatment Plant is recycled used in the garden areas and toilet flush
- Biodegradable material, dead and dried leaves are used for preparing compost
- The Institution has incorporated the importance and significance of biodiversity in the curriculum of the program / courses undertaken in the academic field
- Sprinklers and drip irrigation system is used for watering gardens and plants throughout the campus
- A solar electricity generation plant/ bearing the capacity of 60Kv, which partly fulfils the need of required electricity has been installed
- The Institution has undertaken various measures in balancing the ecosystem, in and around the institution and in the adopted villages through cleanliness drives, tree plantation, awareness programs, rain water harvesting, recycling of waste water etc.

Vellore Institute of Technology Vellore Tamil Nadu

Vellore Institute of Technology (VIT) is a private deemed university and an Institute of Eminence located in the city of Vellore, Tamil Nadu, India. Founded in 1984, as Vellore Engineering College, by G. Viswanathan, the institution offers 20 undergraduate, 34 postgraduate, four integrated and four research programs. It has campuses in Vellore, Chennai, Bhopal and Amravati. VIT is among the first in India to implement the Fully Flexible Credit System (FFCS) which gives the students flexibility to make their own time tables by choosing the subjects and the faculties under whose guidance they want to study.

Student Strength	**30,000**
Faculty Strength	**2255 (Including non-teaching staff)**

Residential Facilities

VIT, Vellore campus has 24 hostels, with 18 blocks for boys and 6 blocks for girl students. Men's hostel accommodates around 16,970 students and Women's hostel caters to 4966 students. The toilets in the campus have modern flooring and equipment for campus toilets. They are provided with exhausts and air vents. Efficient Water appliances are installed. Separate toilets for differently abled person have been built. Dedicated staff works towards maintenance of hygiene.

The university is well connected through network water supply system, with availability of water 24x7.Water treatment plant installed all over the campus for about 1135 KLD.

Solid and Liquid Waste Management

Solid waste is segregated at the source. A committed team works for waste collection and disposal**.** Horticulture waste is converted into manure by compositing facility. Sewage treatment plant is installed in the campus for about 4500 KLD. 90% of waste water is recycled and reused for secondary applications such as flushing, gardening and washing of vehicles.


Hostel Kitchen Facilities

The kitchen offers a multi-cuisine menu catering to vegetarian and non-vegetarian students.


Campus Greenery

Campus Green cover is 32%**.** Dedicated staff is appointed for garden maintenance.

Solar Power

Total solar power installed on campus has a capacity of 1113.3 kW. The solar energy panels installed on campus generate 1,30,000 units of electricity per month.

Wind Power

95 lakh units of electricity per year is obtained from wind power for use on the campus.

Combine Heat and Power

The College has installed a 12T heat pump water heating system and 10000 LPD flat plate solar water heating system are also used.

Adopted Villages:

Sl.No	District	Block	Name of the Village
1	Vellore	Katpadi	Brammhapuram
2		Anaicut	Peenjamandai
3		K.V.Kuppam	Melmoil
4		Sholingur	Vallimalai
5		Pernampattu	Melpatti
6		Kandhili	Perampattu
7	Tiruvannamalai	Jamunamarathur	Jawadhu Hills

Families Benefited: Total No.of households covered by the effort villages wise:

1. Brahmapuram - 150 Households
2. Peenjamandai - 90 Households
3. Melmoil - 150 Households
4. Melpatti - 175 Households
5. Perampattu - 182 Households
6. Vallimalai - 100 Households
7. Jawadhu Hills - 250 Households

Intervention undertaken in the villages:

Cleanliness drive and campaigns were conducted in adopted villages on topics such as awareness on one time Plastic use Ban, IEC on Water, sanitation and hygiene, The students discussed the importance of community participation in village development for sustainable development process of all development indicators. The students also undertook programs on Livelihood Development, Skill Development and providing education infrastructure to public schools. They also promoted organic farming among famers.

Pictures Demonstrating Activities Undertaken:

Before Intervention – Damaged School Toilet Complex

After Intervention – construction of new School Toilet Complex and handing over key to student sanitation ambassador and school Headmaster and teachers with VIT representatives

Project Narrative / Description: The college constructed a Girl students' toilet (36 X 26 around 1000 Sq.ft.) 14 water closet, 5 wash basins, Urinary space 100 Sq.ft in KV. Kuppam Girls Higher Secondary school, K.V.Kuppam block. The total cost of this project was Rs.17.6 Lakh.

Outcomes

- VIT, Vellore campus has 24 hostels, with 18 blocks for boys and 6 blocks for girl students
- Sewage treatment plant is installed in the campus for about 4500 KLD.
- 90% of waste water is recycled and reused for secondary applications such as flushing, gardening and washing of vehicles Solid waste is segregated at the source
- The kitchen offers a multi-cuisine menu catering to vegetarian and non-vegetarian students
- Campus Green cover is 32%**.**
- 95 lakh units of electricity per year is obtained from wind power for use on the campus
- Total solar power installed on campus has a capacity of 1113.3 kW
- The College has promoted organic farming among famers
- Cleanliness drive and campaigns were conducted in adopted villages on topics such as awareness on one time Plastic use Ban, IEC on Water, sanitation and hygiene
- The college constructed a Girl students' toilet in KV. Kuppam Girls Higher Secondary school, K.V.Kuppam block . The total cost of this project was Rs.17.6 Lakh

Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology Chennai Tamil Nadu

Student Strength	8652
Faculty Strength	564

Residential Facilities

The Institution has five hostels, which provide a top-notch facility to boys and girls for their comfortable stay in hostels. It is ensured that the toilets are clean and hygiene through housekeeping staff, who are made available in two shifts. Treated sewage water is used for toilets and watering the plants. Pure drinking water is supplied 24×7 through our own RO plant.

Solid and Liquid Waste Management

Bio-gas is produces (120-150 kg gas) from the food wastes in hostels and canteen. Department of Science and Technology funded E-Waste management unit takes care of recycling/ reuse of electronic waste in and around the campus. Seven Sewage water Treatment Plants (STP) each with 400 kLD capacity are available in the campus.

Solid Waste Management –Bio Gas Plant

Liquid Waste Management –STP

E waste management units set up In Veltech TBI

Hostel Kitchen Facilities

The hostel kitchens are spacious and equipped with moderncooking facilities. All kitchens are equipped with stainless steel chimney to reduce indoor pollution and to protect the kitchen from smoke, moisture and grease-filled air. Well-maintained vegetarian and non-vegetarian dining halls are available to serve good and healthy food to the students in all the hostels.

Cooking area I

Cooking area II

Chimney

Dining Hall

Campus Greenery

The Institution is covered with 50% of greenery. Temperature of the campus ranges from 18°C to 38°C. Naturally grown trees and shrubs are spread throughout the campus. During monsoon and until the end of post-monsoon period, i.e., up to November, the large plain area in the campus is covered with tall grasses, which remain lush green until October and starts drying in November and December. Our Campus has diversified habitats such as insects, annelids, birds, snails etc. The garden department maintains the campus greenery through various maintenance activities such as watering through sprinklers, lawn mowing and grass cutting, bedding plants, general weeding and pruning, removing of leaves from garden, clearing of guttering from fallen leaves, path and driveway clearance, feed, weed and seed lawns, hedge trimming – small shrubs, bushes.

Solar Power

Few street lights are replaced by solar street lights in the campus. Solar water heaters are installed in the hostels for hot water purposes.

Adopted Village The institution has adopted five villages near by the campus viz.

1. Morai
2. Veerapuram
3. Kaniamman Nagar
4. Vellanur and
5. Pandeswaram. All these villages belong to Thiruvallur District.

Families Benefited: Various activities and campaigns conducted in the five villages helped around 350 families to improve their basic amenities and created awareness on hygiene and sanitation.

Intervention Undertaken in the Area

Students visited all five villages and carried out various activities such as Swachh Bharat, e-Waste Awareness Campaign, Jal ShakthiAbhiyanAwarness Camp, Water Conservation Scheme, Awareness Campaign on Hygiene and Sanitation, and Tree Plantation Activity.

Swachh Bharat Activities

Cleaned the Public Area in Veerapuram Village

Awareness Campaign in Government School


Tree Plantation Activity


Awareness campaign on Hygiene and Sanitation

Jal Shakthi Abhiyan Awareness Camp

Outcomes

- The Institution has five hostels, which provide a top-notch facility to boys and girls for their comfortable stay in hostels
- Department of Science and Technology funded E-Waste management unit takes care of recycling/ reuse of electronic waste in and around the campus
- The hostel kitchens are spacious and equipped with modern cooking facilities
- Well-maintained vegetarian and non-vegetarian dining halls are available to serve good and healthy food to the students in all the hostels
- The Institution is covered with 50% of greenery. Temperature of the campus ranges from 18°C to 38°C
- Solar water heaters are installed in the hostels for hot water purposes
- The institution has adopted five villages near by the campus
- 350 families have benefited from the activities and campaigns conducted by the institution

Vignan's Foundation for Science Technology and Research (Deemed to be University) Guntur Andhra Pradesh

Vignan's Foundation for Science, Technology and Research is a private university in the Guntur district, Andhra Pradesh, India. It is located in the rural area of Vadlamudi, on the southeastern part of Guntur City. Vignan University has a Student Activities Council (SAC), which is an elected student body. All the events that are conducted in the campus and every activity that has student involved on the campus is done by the students of this body.

Student Strength	**6653**
Faculty Strength	**779**

Residential Facilities

VFSTR has two hostels viz. Vignan Vihar boy's hostel and Priyadarshini girls hostel. The capacity of boy's hostel is 1235 with 306 rooms out of 1082 allotted strength. The capacity of the girl's hostel is 1239 with 308 rooms out of 1053 allotted strength. The cooking area is clean fitted with chimneys and hygiene maintained in all the places of hostel. VFSTR has a total of 977 clean and hygienic toilets for students and staff. A special in-charge monitors the cleanliness of toilets and campus. A team of 51 people look after the cleanliness of toilets. Toilets are cleaned 3 times per day. All toilets are equipped with either ventilators or exhaust fans to avoid bad odour.

Solid and Liquid Waste Management

VFSTR has implemented the concept of "Waste to Wealth", a solid-waste management system on its campus. A biogas plant with an intake capacity of 1000 Kg of food waste is installed and commissioned to generate 70 Kg of LPG equivalent of biogas per day which is used in the student's hostel for cooking purposes. The project was established at a cost of Rs.50 lakhs. The input to the plant is the food waste generated from Vignan's hostel kitchens used as raw material. The slurry generated as the by-product is useful as fertilizer/manure for agricultural use.

Hostel Kitchen Facilities

The *hostels* have excellent water *facility*, modern *kitchen* and dining. The students are provided with the choice of vegetarian and non-vegetarian food. The hygienically produced, nutritious and tasty meals are consumed by students and staff alike. The hostel kitchen is equipped with facilities for steam cooking through boilers. The kitchen has rational self cooking efficiency with 20 trays, where boiling, frying, baking can be done in a hygienic environment without any loss of nutrients. Kitchen is also furnished with exhaust hoods.

Campus Greenery

Approximately 50% of the campus area has lush greenery, a herbal garden with different medicinal plants, a lotus pond, a greenhouse with hydroponics. VFSTR is eco-friendly and aesthetically pleasing campus where environmental friendly practices are implemented to promote sustainable lifestyles. The institution has received the “Green Institution Award” for 2018 from the State Government of AP. The institution conducts green audit of its campus regularly where a team surveys, monitors and recommends ways to maintain an eco-friendly campus.

Solar Power

A 1MW Solar Photovoltaic (PV) power plant was installed in VFSTRU in 2019. The plant started working since February – 2019 with the investment cost of 6.5 crore rupees including 30% subsidy from MNRE (Net investment was 4.55 crore). Solar PV plant was set up on all roof tops of the buildings with effective area of 10,000 Sq.mtrs excluding shading area. By the installation of renewable energy source, 39.95% of energy demand was met by the Solar PV plant.

Adopted Village:

Veeranayakunipalem village in Guntur district, A.P. was adopted by the institute.

Families Benefited: The total number of people or families covered by the efforts are 300.

Interventions Undertaken in the Area

VFSTR has conducted activities related to health, education and general awareness on environment in the adopted village. The institute has organized road cleaning drives, cleaning of drains, waste collection drives, door to door swachhta awareness campaigns, dangers of using plastic, importance of child education and created awareness on better sanitation practices like using the toilets, hand wash and health and hygiene.

Village and school level rallies were organized to mobilize community and to build compost pits. A survey was conducted in the village on water samples to trace the alkalinity determination. VFSTR installed an RO water plant for supply of drinking water. The object of this program was fulfilled by improving the existing measures ensuring hygiene and trying to accomplish the mission with a mindset of zero tolerance towards unhygienic conditions. A great change was observed in the attitude of the public of the village towards maintaining cleanliness of the surroundings**.**

Inauguration of RO Water Plant

Higher Education Awareness

VFSTR volunteer team



Cleaning Drive in the Adopted Village: Before and After Cleaning

Outcomes

- VFSTR has two hostels viz. Vignan Vihar boys hostel and Priyadarshini girls hostel
- A special in-charge monitors the cleanliness of toilets and campus
- VFSTR has implemented the concept of "Waste to Wealth", for solid-waste management on the campus
- A biogas plant with an intake capacity of 1000 Kg of food waste is installed
- The *hostels* have excellent water *facility*, modern *kitchen* and dining
- The hostel kitchen is equipped with facilities for steam cooking through boilers
- Approximately 50% of the campus area is lush green,
- A herbal garden with different medicinal plants, a lotus pond, a greenhouse with hydroponics is maintained by the College
- The institution has received the "Green Institution Award" for 2018 from the State Government of AP
- The institution conducts green audit of its campus regularly where a team surveys, monitors and recommends ways to maintain an eco-friendly campus
- A 1MW Solar Photovoltaic (PV) power plant was installed in VFSTRU in 2019, 39.95% of energy demand was met by this plant
- VFSTR has conducted activities related to health, education and general awareness on environment in the adopted village.
- The institute has organized road cleaning drives, cleaning of drains, waste collection drives, door to door swachhta awareness campaigns, dangers of using plastic, importance of child education and created awareness on better sanitation practices like using the toilets, hand wash and health and hygiene

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