

Sustainable Campus Plan - 2021-22

Higher Education Institute Success Story

NAME OF THE INSTITUTION: - **MAHATMA GANDHI MISSION's MEDICAL COLLEGE, Navi Mumbai**

DISTRICT: - **RAIGAD**

STATE: - **MAHARASHTRA**

1. Introduction of the Institution

Mahatma Gandhi Mission's Medical College is a constituent college of MGMIHS (Mahatma Gandhi Mission Institute of Health Sciences, accredited by NAAC Grade 'A', deemed to be University) and is a front runner in the domain of community engagement in health sector, has received 1st National Ranking as Swachh Campus. As the primary source of health care, MGM Medical College is uniquely positioned to convene community partners around a shared health agenda. We trace our roots to individuals who wanted to ensure that care and services were provided for their fellow citizens. The green campus of the institute is located at the junction of Mumbai – Pune Expressway and Mumbai - Goa Highway.



2. Strength of the Institution

Student Strength	1050
Number of Teaching Staff	350
Guest Faculty	NA
Number of Non-Teaching Strength	350

3. Residential Facilities

The college has total 4 hostel and staff quarters. The strength of hostel is around 1000 students and there are around 50 staff quarters. The residential facility is provided with all amenities like 24x7 drinking water supply, uninterrupted power and solar hot water system, fire safety system, lift facility, solar street lights in the campus area. There is adequate number of urinals, toilets and bathrooms. Student toilet ratio in residential area is 5:3 for male, 5:2 for female and 20:1 for divyang jan in the

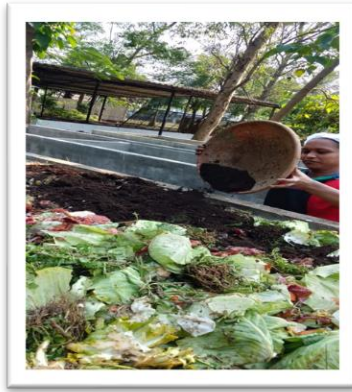


common academic area. There is canteen and mess facility equipped with latest fittings and modern anti-skid flooring and exhaust fans. Special provisions have been made for persons with disability. Sanitation and hygiene is ensured by proper maintenance and cleanliness of toilets. The institute has a mechanized laundry system which saves 70% of the water. For students, library and gym facility, indoor sports room as well as outdoor playground, yoga room and music room exist. Other facilities like garden, jogging track, footpath for pedestrian are present. Whole campus is Wi-Fi enabled.

4. Solid and Liquid Waste Management in Campus

Different types of waste is generated in this campus which can be categorised as – 1. Solid Waste, 2. Liquid waste, 3. E-Waste. As it is a medical college and has tertiary care hospital, lab facility, blood bank facility etc.: 4. Bio - Medical Waste is also generated.

There is a waste management and sanitation & hygiene committee which monitors waste management system actively. The disposal of generated waste is done by using scientific and sustainable methods. For general waste we have separate dumping area and compost area as well as for bio medical waste we have separate biomedical segregation room. General waste is segregated under the following categories - dry waste, wet waste (food waste, vegetables waste garden waste and other bio degradable waste), recyclable waste like bottles and paper/cartoon etc. glass and wires waste. Recyclable paper and cartoon box waste is recycled by outsourcing. Wet waste is disposed by using compost method. Total 8 compost pits are made & capacity of one pit is approx. 2 ton. Different types of compost techniques are used like vermin compost/organic compost/cow dung compost.



Manure is used in garden area of the campus. To maintain general waste segregation in all area dry & wet waste dustbins are installed.

The same is for Bio medical waste at wards and other such areas. Separate dustbins are installed as per bio medical colour code norms with informative display sticker pasted near dustbins. Bio medical waste and lubricating oil



discharged from generator sets are collected by government approved vendors.

Liquid waste generated from washroom, toilets, kitchen and laundry etc. are treated in the Sewage treatment plant (STP) in the campus with capacity of 4L KLD. The treated waste water form STP is reused through double pumping technique for horticulture, washing vehicle, construction work.

This all is demonstrated to the students to create awareness about environment responsibilities.

5. Hostel Kitchen Facilities

The Institute has modern kitchens with chimney and multiple exhausts, well maintained 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 and health inspector as well as dietician. The canteen and mess is certified as EAT RIGHT CAMPUS as per guidelines established by Food Safety and Standard Authority of India and secured 5 STAR RATING as Excellent. Dedicated staff maintains the hygiene and cleanliness



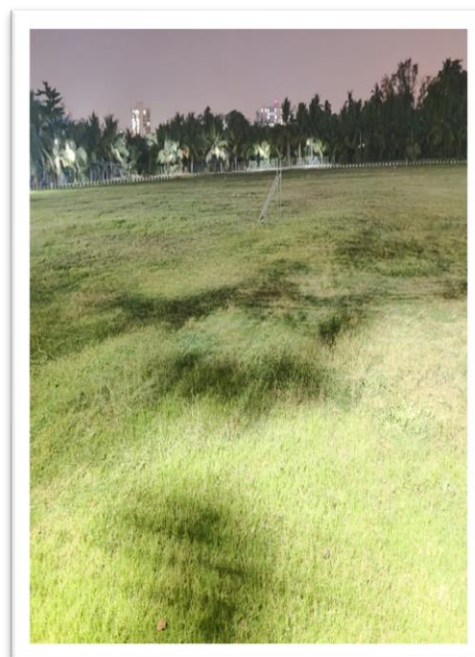
of the kitchen and dining areas under the supervision. Also have RUCO (Repurpose Used Cooking Oil) certificate. An initiative that will enable collection and conversion of used cooking oil to bio-diesel. There is also provision for following COVID 19 norms, as separate hand washing station near entrance door of the canteen is installed. Also, all sitting area is frequently cleaned & disinfected by the dedicated person. The rodent control and pest control facility is also there. To create awareness among students and people different types of posters are displayed which are made by students. Also, frequently training is given to all canteen and mess staff members related to hygienic methods of food handling and cooking and personal hygiene.

All canteen Staff is Immunized for covid 19 and Hepatitis. Also, regular health check- up of all staff is done in every 6 months.

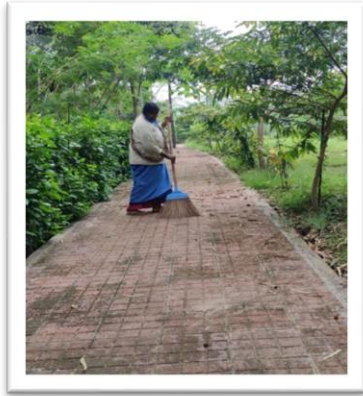
6. Campus Greenery

The college have a team of environment experts and, gardeners that maintain more than 60% greenery and landscape of the campus. Over 70 different types of trees (Approx. 2700 trees) have been planted in and around the campus area. An In-house nursery area for making new plants by grafting and other technique exist. Sprinklers, pop up sprinklers and dripping irrigation system are used for watering the plants. The wastewater from the sewage treatment plant and rain water harvesting pond water is used in horticulture purpose. 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. Approx. 34 different types of butterflies and Bee keeping on the campus induced pollination of many flowering plants. Campus has separate herbal garden and planted more than 70 types of herbs and plants/ trees. The garden displays information about properties and use of each medicinal herbs and plants/trees.

Campus has separate flower bed (11 different types of flower plants has been planted) for attracting different types of butterflies, bees and other insects and we can



watch more than 20 different species of birds. Campus has separate MIYAWAKI FOREST (800sq metre)



area which is planted on the World Environment Day 2019.

The biodiversity is maintained in the campus. We can watch different types of birds, insects, butterflies, reptiles, fishes, turtles, and local wild flower plants which attract all species. Also have separate research area in garden, which is use by research department.

To monitor environment air quality also installed Air Quality Monitoring system. For mosquitoes control used guppy fishes, and fumigation methods. Also, time to time organised tree plantation

activity involving students and staff in campus.

7. Land Use Management

There is total 80,000 sq. meter land area. The institute have developed large area for greenery which includes three major green space. 1 Central Courtyard 3703 sq. meter 2. Garden area of medical college & hospital 4554 sq. meter (college) & 3824 sq. meter (hospital) 3. Stadium ground 35000 sq. meter. Stadium playground is utilized for various playing field including cricket / football / volleyball / hockey etc. The rest have adjoining plot area 30000 sq. meter for bulk tree plantation. Around 20000 sq. meter utilized for rain water harvesting plant. Same water is utilized by treating for horticulture purpose and flushing. Some land area is dedicated for herbal garden (2000 sq. meter) and for research purpose and approx. 800 sq. meter area used for making MIYAWAKI FOREST. The rest of land is used for compost unit/nursery and garden purpose.

8. Solar Energy Conservation

The institute has an in-house solar plant with installed capacity: 377.69 KW, Inverter – string type with



50 KW - 6 Nos., 30 KW - 2 Nos. Inverter power – 377 KW. Annual Energy Generation- 5,91,300 KWh / KWp / year. In campus we have solar hot water system. Total installed units – 60 with total capacity per day 18,000 Lt. Also, we have solar Street Lights – total No: 14 (operates on occupancy sensor). Approximate cost saving is Rs. 23, 66, 000/-. Installing separate solar mobile charging station and ironing station is in process for making campus more eco-friendly and conservation of energy.

9. Water Management

In campus we have different types of water sources – 1 – Government Water Supply, 2 - Bore wells in campus (4 Borewells), 3 - Rain water harvesting pond (Capacity approx. 3 Cr litre). In addition to this there is Water Treatment Plant (WTP) which recycles the waste water with capacity of 80000 litre / day, and Sewage Treatment Plant which generates the water. For storage of water, we have 15 overhead big water tanks of high capacity and also underground water collection tanks in the range of 450000 L to 80000 L capacity. Water supply is through pipeline distribution system



Water supplied through Government water supply is used for drinking & research lab purpose. Rain water harvesting pond water is treated in water treatment plant and this treated water is used for bathing /flushing / horticulture /laundry purpose. Water from STP after treatment is also used for flushing / horticulture/ construction work /washing vehicles and other such kind of purpose.

We have borewell but the quality of water is moderately hard. So, this water is in use only in toilets for flushing. To differentiate water source, we have colour coded pipeline, like drinking water BLUE, borewell water PINK, sewage treatment plant water GREEN etc.

To provide safe drinking water in campus Automatic Chlorine Dosing System is installed, and residual chlorine is monitored by Health inspector using Chloroscope. For checking other pathogens quarterly microbial testing is being done at Public Health Laboratory. All water collection tanks are cleaned on schedule. To promote conservation of

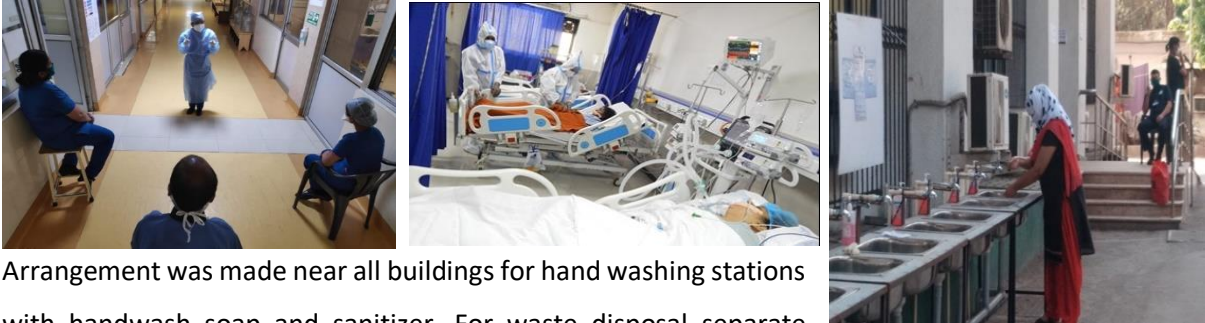


water and creating the awareness in students and faculties and public we celebrate World Water Day and provide training for all on how to minimize the use of water by maintaining hygienic conditions.

10. COVID 19 Interventions

MGM Medical college Hospital Kamothe had experienced an increasing number of cases of suspect and COVID positive cases in the OPD screening and IPD admissions to the COVID Isolation ward since early March 2020, and was declared as a Dedicated COVID Hospital of 150 bed expandable to 250 beds. Training given to all staff who are handling the patients about precautionary measure and govt norms for Covid 19. Departmental training sessions were initiated early by Management and Infection control Committee which included

- Awareness on COVID 19
- Demonstration on use of PPE including Donning and Doffing
- Contact prevention and BMW Disposal management
- Videos from Health and family welfare/ICMR/WHO /CDC were circulated
- Psychological counselling and motivation sessions under Psychiatrist



Arrangement was made near all buildings for hand washing stations with handwash soap and sanitizer. For waste disposal separate arrangements were made and all covid waste handlers, chosen from dedicated housekeeping staff were specially trained. Also, there was counselling facility for all patients and their family as well staff. In Jan 2021, Covid vaccination was started for all Health care workers and more than 8000 beneficiaries were vaccinated in the year.

In campus display boards related information and instructions about Covid pandemic were fixed.

At adopted village also surveillance was initiated and training provided for precautionary measure and also provided treatment.

11. Adopted Villages

Five Villages including the satellite hamlets have been adopted in Panvel Taluka of Raigad District

1. Dhamani
2. Dodhani
3. Dehrang
4. Tawar Wadi
5. Waghachi Wadi

12. Key Interventions/ Achievements in Adopted Village

Under the flagship scheme of Unnat Bharat Abhiyan and 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.

- Initiative for Open Defecation Free (ODF) Village, based on survey conducted and PRA
- Reconstruction of toilets and redevelopment work for Water and Sanitary facility and Playground in the village primary schools
- Repairs of existing toilets of villagers to increase the use of it
- Drinking Water Source Survey across villages and satellite hamlets as availability of water supply throughout the year was one of the issue found in earlier surveys.
- Potable water supply projects are in pipeline.
- For the purpose of Employment Generation support provided to suitable youth for training through collaboration with various NGOs.
- Domestic waste management workshop for villagers and key opinion leaders and self-help groups.
- Drawing competition related to SWACHHTA for inculcating values among school children
- Distribution of school uniforms to Anganwadi Children from villages to encourage them to attend on regular basis
- Rallies in villages and skits in key areas for Health, Hygiene and Water Sanitation messages
- Plantation drive by providing saplings of indigenous plants from time to time.
- Regular Health Check- ups and speciality camps in villages on weekly basis. Also, preventive activities like immunization of children and antenatal care for pregnant women.



13. Key Institutional Achievements/Outcomes

- The institute 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 kitchen-waste goes to compost pit and manure generated is used for plants in campus.
- 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. Institute has received Eat Right Campus Certification as per guidelines established by Food Safety Standards Authority of India with 5 Star rating.
- More than 60% space of campus is covered by Greenery.
- The institute has Roof-Top Solar Panels of 377 KWp
- The institute has more than 95 % energy efficient LED lights
- The institute has adopted 5 villages in the Panvel Taluka (Tehsil) of Raigad District
- The institute has repaired and redeveloped school toilets.
- The institute is taking efforts to make the villages ODF.
- The institute is in process of project development for clean and potable water supply to villagers in adopted area.
- The institute conducts regular health check-up camps, speciality camps, disability rehabilitation, health education session, immunization and preventive antenatal care for pregnant women in adopted villages.
- Institute has conducted drawing competition in village schools on topic of SWACHHATA to inculcate values in young minds.
- Campus has achieved various environmental and educational awards such as-
 - National Swachh Campus 3rd ranking in 2018
 - National Swachh Campus 1st ranking in 2019
 - National AHPI Award for Excellence in Community Engagement in 2019
 - Swachh Bharat Summer internship award
 - Swachhata Puraskar 2020 and Appreciation Certificate for using compost method from local government authority - Panvel Municipal Corporation.
 - Award for upholding Gandhian values 2019 by Re-Think India.
- Institute promotes and create awareness among students and faculty as well as public about their social responsibility towards Nature and Environment conservation.
- Institute observes days of Public Health and Environment importance

- World Environment Day
 - World Water Day
 - World Toilet Day
 - World Food Day
 - International Women's Day
 - World Health Day
- Institute conducts Environment Studies AECC Course. Students are provided exposure to environmental issues.
 - Only Medical Institute in India to have a Water Treatment Plant of world class technology and following the principles of water conservation by recycling the water on large scale.

Any other Details Sharing (if Any):

1. Air Quality Monitoring – As situated at junction of Mumbai – Pune Expressway and Mumbai – Goa Highway
2. Part of SESREC Program
3. Participation in Sugamya Bharat Abhiyan
4. Swachhata Sarvekshan of Panvel City in 2018-19 in collaboration with Municipal Corporation.



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