Shri Gajanan Shikshan Sanstha's
SHRI SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING
SHEGAON – 444203, DIST. BULDHANA (MAHARASHTRA STATE), INDIA
"Recognized by A.I.C.T.E., New Delhi" Affiliated to Sant Gadge Baba Amravati University, Amravati
"Approved by the D.T.E., M.S. Mumbai"

Ph : +918669638081/82 Email.principal@ssgmce.ac.in, registrar@ssgmce.ac.in
Website- www.ssgmce.ac.in

Green Campus Policy

Shri Sant Gajanan Maharaj College of Engineering, Shegaon (SSGMCE), one of the premier institutes in the field of engineering, was established in 1983 by Shri Gajanan Shikshan Sanstha, Shegaon. It is affiliated to Sant Gadge Baba Amravati University, Amravati, recognized by AICTE, New Delhi and approved by DTE, Maharashtra State, Mumbai. SSGMCE has the recognition of being the re-accredited institute by NAAC, Bangalore and the courses are also accredited by NBA, AICTE, New Delhi. The Institute was selected as the Network Institute under NPIU's TEQIP, MHRD, Govt. of India under Phase-I. SSGMCE is honoured with Dewang Mehta National EDUCATION LEADERSHIP AWARD.

The campus is spread in 82 Acres of land of lavish green garden which help the students for concentrating on the studies. Taking into account the necessity of protecting environment for a sustainable, pollution-free and healthy life on the planet Earth in the coming years, the college has formed its Green Protocol. The college endeavours to follow this policy strictly by actually enacting to and also creating environmental consciousness among the students and thereby among the society in general by organizing various activities within and outside the campus. The Institute works towards creating a green, pollution-free and healthy environment with a missionary zeal and dedication. Institute recognize the importance of conserving natural resources, reducing our carbon footprint, and promoting eco-friendly practices.

At the institute, a Green Cell has been established, and its commitment to the environment is evident through the adoption of straightforward eco-friendly practices and adherence to green policies. This Green Campus Policy outlines Institute's commitment to sustainable practices and the steps that will be taken to create a more environmentally friendly campus.

Initiatives Taken to Implement the Clean and Green Campus Policy:

Eco-Friendly Landscaping:

In alignment with the Clean and Green Policy of Shri Sant Gajanan Maharaj College of Engineering, Shegaon, our institution is wholeheartedly committed to extensive tree planting initiatives. These endeavours encompass a wide variety of ornamental, medicinal, and wild plant species, all thriving within our campus boundaries. Institute has established a dedicated nursery and greenhouse within the campus, with a primary focus on herbal plantation. Throughout the campus, towering trees like Neem, Wad, Pipal, Chinch, Goolmohor, and more contribute to the lush green landscape.

Within the greenhouse and nursery, various medicinal herbal plants are cultivated, including Brahmi, Ashwagandha, Shatawari, Aloevera, Amla, Moringa, Tulsi, Indian Bael (Bilva), Cassia, Nilgiri, and many others. These efforts underscore the institute's commitment to promoting both biodiversity and sustainable practices. To ensure the thriving condition of green spaces, the college has appointed dedicated gardeners and support staff. Their efforts contribute

significantly to the upkeep of our gardens, fostering a litter-free, environmentally-friendly campus. Furthermore, tree-planting drives are regularly organized by NSS Units. These initiatives play a pivotal role in reinforcing our dedication to environmental preservation and maintaining a cleaner, greener campus.

Water Management:

Efficient Water Use:

Regular inspection and repairing of plumbing systems to address leaks promptly and reduce water wastage.

Leak Detection and Repair:

Implementation of water-efficient technologies and practices, such as low-flow fixtures and efficient irrigation systems.

Wastewater Treatment:

Being a residential college where a large number of students and staff reside within the campus, there is a substantial need for water during operational and site activities. However, this also results in the production of a significant amount of sewage water. As an environmentally conscious institute, SSGMCE has taken the initiative to address this challenge by installing a 12,000 LPH water recycling system. This system enables us to continually reuse one of our most vital resources and maintain an environmentally friendly campus.
The water recycling process involves the removal of contaminants from wastewater, allowing it to be reused efficiently. This process comprises several key components, including an oil and water separator, a filtration system, a detergent removal unit, and a sanitation unit. The recycled water is primarily used for watering the plants through a drip system, and after undergoing reverse osmosis treatment, it is also suitable for drinking purposes in the hostels and faculty block. This sustainable approach not only contributes to water conservation but also plays a pivotal role in maintaining the lush greenery of our 82-acre campus, all while incurring negligible costs for maintenance.

Rainwater Harvesting:

Water, a vital abiotic component of the ecosystem, is essential for sustaining life. However, global water scarcity due to insufficient conservation and pollution poses a significant challenge. The institution has taken a proactive stance, committing to responsible water use in response to this pressing issue. As a residential campus accommodating numerous students and staff across various hostels, the institution has recognized the urgency of addressing water scarcity. To tackle this challenge effectively, the institution has implemented state-of-the-art rainwater harvesting technology. This advanced system enables the efficient collection, storage, conveyance, and purification of rainwater that runs off the rooftops, ensuring its availability for various essential purposes.

The institution's rainwater harvesting system comprises several integral components:

Well: Specially designed wells are utilized to efficiently collect and store the captured rainwater.

Conveyance System: A well-structured conveyance system facilitates the seamless movement of harvested rainwater, transporting it from the well to a designated recharge zone through a network of pipelines.

Filter: Ensuring the purity of the collected rainwater is a top priority. To achieve this, the institution has integrated advanced filtration systems into the setup. These filters effectively remove pollutants and contaminants, rendering the water safe for use. Subsequently, the purified rainwater is channelled through a drip irrigation system, nourishing the campus plants and contributing to the vibrant greenery.

RO Water Plant: Recognizing the vital need for safe and potable water, a cutting-edge Reverse Osmosis (RO) water treatment plant has been incorporated into the rainwater harvesting system. This plant meticulously treats the rainwater, meeting stringent standards for drinking water quality. The treated water is then distributed via an extensive network of pipelines to various locations across the campus, including hostels and academic buildings, ensuring a safe and reliable source of drinking water for the entire community.

This holistic approach to rainwater harvesting not only supports water conservation but also underscores the institution's commitment to environmental sustainability. Through these initiatives, the institution actively contributes to addressing the growing challenge of water scarcity, ultimately striving for a more sustainable and eco-conscious future.

Solid Wastage Management:

Within the campus, comprising three girls' hostels, four boys' hostels, four staff quarters, cottages for class-4 employees, and an on-campus dispensary, solid waste management has posed a significant concern. In response, the institution has implemented a structured process for collecting, treating, and disposing of solid waste, as well as strategies for recycling materials that should not be discarded as garbage or trash.

A segregation and measurement system has been put in place to manage various types of solid waste generated on campus. This includes biodegradable waste, such as rotten food, vegetable peels, and primarily wet kitchen waste, as well as e-waste, which encompasses irreparable computers, electronic and electrical equipment, machines, and toxic materials from the dispensary.

Biodegradable Waste Management:

The college, featuring hostel facilities and extensive landscaped gardens, generates a substantial amount of biodegradable waste. To efficiently address this waste stream, a Bio composting unit has been installed in the parent organization. The resulting compost serves as a valuable fertilizer feedstock for the college's own garden. Kitchen waste and leftover food undergo biodegradation, transforming into compost via this eco-friendly process, with the plant located at Anand Sagar within the parent organization.

Installation of Incinerators:

Demonstrating its commitment to safe and responsible waste disposal, the institution has equipped all three ladies' hostels with sanitary napkin incinerator machines. These incinerators offer a hygienic and secure means of disposing of used sanitary napkins, thereby promoting cleanliness and a healthy environment within the hostels.

Minimize single-use plastics and promote reusable alternatives:

The college promotes eco-friendly alternatives such as stainless steel, washable, and reusable tumblers at all water dispensing points. Additionally, it enforces a policy mandating the canteen to exclusively use stainless steel or paper plates, glasses, and cups, effectively eliminating the use of plastics throughout the campus.

Through these initiatives, SSGGMCE proactively addresses the challenges of solid waste management, ensuring a cleaner and more sustainable campus environment for all its stakeholders.

E-waste Management:

SSGGMCE has implemented a highly efficient system for the responsible disposal of e-waste generated across various sources within its campus. E-waste originates from multiple areas, including computer laboratories, electronic labs, physics labs, chemistry labs, academic offices, and administrative offices. This category encompasses a wide range of items, including out-of-order equipment, obsolete lab instruments, circuits, desktops, laptops and accessories, printers, charging and network cables, Wi-Fi devices, cartridges, sound systems, display units, UPS units, biometric machines, and scientific instruments, among others.

To ensure responsible e-waste management, the institution has established designated storage areas where e-waste is assessed for potential exchange or disposal at minimal cost. Committed to environmental stewardship, all e-waste is optimally utilized. Any equipment that cannot be reused or recycled is disposed of through authorized vendors, ensuring full compliance with environmental regulations. Furthermore, the department actively promotes the reuse of electronic components salvaged from discarded instruments, PCs, UPS units, and more. These components, including transformers, transistors, ICs, capacitors, inductors, resistors, connectors, sockets, switches, wires, LEDs, and other electronic or electrical devices, are reused to fabricate instruments and experimental kits utilized in laboratory settings.

The institution collaborates with certified e-waste recyclers who adhere to environmentally friendly practices and ethical recycling standards, further underscoring its commitment to responsible e-waste management.

Environmental Awareness Display Boards:

Various boards, featuring quotes promoting environmental awareness and ethics, such as air-pollution control, maintaining a plastic-free campus, conserving energy, recycling resources,

tree plantation, and nature conservation, are prominently displayed for the benefit of all college stakeholders

Renewable Energy:

Solar Power Generation:

Installation of solar panels on rooftops and open spaces to harness solar energy for electricity generation is a significant green initiative at SSGMCE. One of our major solar projects is the grid-connected rooftop solar power system with a capacity of 310 kW.

Paper to Pixels: Revolutionizing Office Communication

The institution has implemented a paper-minimization policy for all official and academic communications, prioritizing E-Communication to significantly reduce paper consumption. To prevent paper wastage, one-sided blank pages are utilized for documentation. All college staff members have been provided with college E-mail IDs, facilitating official college-related correspondence through electronic means. Furthermore, WhatsApp groups have been established based on class, department, and committees, reducing the need for paper-based notices and circulars. The introduction of the "E-resources " has been instrumental in further restricting paper usage. This platform stores and shares references, notes, syllabi, question banks, study materials, and more digitally.

Energy Conservation and Eco-Friendly Practices:

Adoption of LED Bulbs/Tubes and Energy-Efficient Equipment.
Default eco-friendly settings on all copiers, printers, and electronic devices.
Installation of timers for office copiers and printers to automatically power down idle equipment or activate energy-saving modes during prolonged inactivity.
Continued use and proper disposal of compact fluorescent light bulbs.
Responsibility for cleaning staff to switch off lights left on after office hours.
Commitment to the SSGMCE Healthy Foods policy, advocating for the purchase and consumption of local, organic foods that require minimal energy for transportation and production.
Vigilant effort to turn off unused lights in cabins, classrooms and laboratories.
Employ additional lighting only when necessary.
Extended use of automatic light sensors in areas with low foot traffic.
Configuration of computer monitors to power off automatically after specific periods of inactivity.
Disabling screensavers to conserve energy and reduce computer wear and tear.

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Promoting Green Values: Special Days at SSGMCE:

The college actively observes and celebrates various environmental awareness days and events to emphasize the importance of protecting and nurturing the environment. These initiatives include Earth Day (22 April), World Environment Day (June 5), 'International Day for the Preservation of the Ozone Layer' (16 September) and other relevant occasions. During these observances, the college conducts a range of activities such as tree planting drives, awareness campaigns, seminars, and workshops to educate the campus community about environmental conservation and sustainability. On Ozone Day, students and staff of the college are encouraged to use bicycles and battery-operated E-bikes, while the use of petrol and diesel vehicles are restricted inside the college campus.

Evaluating Green Initiatives: Environmental and Energy Audit:

The Green, Environmental, and Energy Audit of the college is conducted by Enrich Consultants, Pune.

These efforts align with the college's commitment to fostering a greener and more sustainable campus environment.

Dr S.B.Somani

(Principal)