

॥ विद्या परम् दैवतम् ॥

Wainganga Bahu-Uddeshiya Vikas Sanstha's



WAINGANGA COLLEGE OF ENGINEERING & MANAGEMENT

Near Gumgaon Railway Station, Dongargaon, Wardha Road, Nagpur - 441 114. (M.S.) INDIA
Tel.:07103 - 202007, 203728 Email:wcem@rediffmail.com, wcem4145@gmail.com, Website-www.wcem.in

An ISO 9001 : 2008 Certified Institute, Accredited by International Accreditation Organisation
Approved by AICTE, DTE, Govt. of Maharashtra & Affiliated to RTM Nagpur University, Nagpur.

Institutional Policy on Environmental Consciousness and Sustainability



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Environment Audit Framework

Waste Management		
Objective	Control	Audit Observation
Maximum the proportion of waste that is recycled and minimize the quantity of non-recyclable	Reduce the amount of waste from staff and students in campus	WCEM campus already have initiated paper waste reduction campaigns through notice boards and emails signatures with captions mentioned “ think before you print”, “Easier saving paper than planting trees”, A sign near printer mentioning “ save paper, Use both side” is placed. Though single use water bottles are used in canteen, wastes are segregated separately
	Segregation of waste at source	WCEM campus have initiated waste segregation through use of different metal bins with indications for paper, glass, plastic, metal, e-waste & organic waste in necessary location
	Waste recycling through composting	Garden wastes were collected & composting was done on a small scale & output was used as fertilizer for landscape within campus
	Organic waste recycling Biogas system	Food waste & vegetable scraps are collected daily from canteen to feed the biogas system & generated gas is used for cooking purpose. Approximately 12-15 kg waste are feed &




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Vision

Wainganga College of Engineering and Management, Nagpur is obligated to environmental sustainable in all aspect of its mission and will instigate itself to perform all its functions in the most of sustainable ways consistently. Wainganga College of Engineering and Management, Nagpur focus for the leadership includes full adherence to preserve energy and water resources which are getting knackered in an increased pace due to indiscreet practices in the past and present and calls for immediate action to avoid predicament.

Mission

Wainganga College of Engineering and Management, Nagpur, as part of the both local and overseas community, endeavours to be a responsible care taker of the environment. Wainganga College of Engineering and Management, Nagpur, seeks to minimize its environmental impact both present and in the future; this is consist with the financial and social feasibility of the institution and the relevance of its academic program s. Through its academic and research activities, Wainganga College of Engineering and Management, Nagpur, will create the environmental in which sustainable practices and policies are apparent and obvious to everyone.

Environment Policy Document

Wainganga College of Engineering and Management, Nagpur, takes a glory in the seismic beauty of its campus. The plants and tree inside the campus have been place of reflection and inspiration, and offer the understanding into the intricacy and balance the nature.




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Purpose

Policy will have an essential role as Wainganga College of Engineering and Management, Nagpur continues to develop an environmentally sustainable and economically feasible campus that reflects the institutions funding values of engagement and responsibility. This statement constitutes a commitment by Wainganga College of Engineering and Management, Nagpur to meet the need of faculty, students and administrative staff to preserve the environment for coming generation to come. Wainganga College of Engineering and Management, Nagpur is loyal to preparing its to become committed environmental citizen on and off campus, and their lifetime. The institute will prepare the community about the best practices to improve the environmental imprint of the campus and its activities

Scope

This policy is applicable to all members of Wainganga College of Engineering and Management, Nagpur community, including Teaching, nonteaching staff and students,

Guidelines

- The institute will examine the environmental impact of its development, communication, and procurement, curriculum research and campus activates.
- The institute will augment its commitment to environmental education by introducing environmental content to curriculum material.
- The institute will encourage the use of environmentally conscious transportation to all members of Wainganga College of Engineering and Management, Nagpur community
- The institute will collaborate with other educational institution and government agencies to improve the best practices in its activities.




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		which in turn provide cooking gas for 2-3 hr
	Waste recycling through vendors	Segregated recyclables waste and garden waste are collected separately by service staff and disposed in every 3 days by local vendors
	W-waste disposal through vendors	Contract has been made with local vendor specifically for e-waste collection and disposal.
Energy Management		
Objective	Control	Audit Observation
Reduce consumption of energy, especially of energy derived from various fuels	Look into the possibility of on-site micro generation of electricity through renewable energy	WCEM has installed 5KW solar in roof of various blocks and approximately 10-12% of energy consumption is catered by solar power. Solar panels are cleaned on regular intervals.
	Give Preference to the most energy efficient and environmentally sound appliances available,	WCEM has installed LED batten lights and procurement teams are much aware to purchase only BEE star rated products as per their Green policy.
	Encourage staff, students and conference guests to save energy through visible reminders and information to increase awareness,	Signage near switch boards to turn off when not in use is placed and staffs particularly instructs the students to turn off while leaving the class rooms and break. Also cleaning staff are educated to turn off lights and fans when not in use.
	Ensure that all electronic and electrical equipment are switched off when not in use, or put in power saving mode during breaks.	Usually lab assistants and service staff are educated to switch off the computers and other lab equipment when not in use.
	Personalized controls.	Class rooms, labs and staff rooms are adequately daylight and the few zones which need light can be only switched on and avoids unnecessary use of artificial lights. Automated




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		controls like occupancy sensors are in future plans.
Environmental Management		
Objective	Controls	Observations
Ensure that Environmental awareness is created	Conduct events to spread awareness through students	Environmental committee is in place to maintain and develop organic farming and Bee keeping is practiced within the garden of campus. These activities are updated in the college website to create awareness about the biodiversity.
	Environmental committee is in place to maintain and develop organic farming and Bee keeping is practiced within the garden of campus. These activities are updated in the college website to create awareness about the biodiversity.	WCEM campus does not directly or indirectly contribute in depletion or degradation of natural resources.
Water Management		
Objective	Controls	Observations
Minimize water consumption	Install appliances which reduce water consumption	Taps installed have flow rate of 7-9 LPM, which are on the higher side, however we suggest to close the down supply valve to 25% to cut down the gushing water in tab.
	Encourage a decrease in water usage among staff, students and guests.	Signage in washrooms and canteens are placed to close the taps when not in use and not to open the tap to full open condition.
	Repair sources of dripping taps and showers	Dedicated plumber is always available and Chief Maintenance Manager is in constant rounds to check any issues. However no overflow cut-off system is not provided in OHTs.
Green Standards		
Ensure that the buildings confirms to green standards.	Review architecture of existing buildings reduce usage of energy, water usage	Buildings are designed such a way to provide shade to each windows through sun shades which blocks the harmful solar




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		radiations and keeps the inside space cool with large airy windows and nearby trees. Computer labs and AC spaces windows are tinted for blocking solar heat and any time or angle.
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Energy Saving Guidelines for Institutional

Responsibilities General

To save electricity, computers can be set to energy save mode. For example, Personal Computers will be programmed for the "energy saver" mode using the power management feature. If network constraints do not make this possible, the monitors will be set to 'sleep' after 10 minutes of inactivity.

Air Conditioning Equipment

Occupied temperature settings will not be set below 20⁰ C. In Wainganga College of Engineering and Management, Nagpur every week, the compressors and AC vents are cleaned for better operation and energy efficiency. Air conditioner start times may be adjusted (depending on weather) to ensure a comfortable environment when space is reoccupied. Outside air dampers will be closed during unoccupied times.

Lift Usage

The institution encourages people to follow healthy habit of taking stairs and save energy as well. Some of the lifts are configured to stop specific floors to save time and energy. **Lighting**

All external lighting will be switched off during day time. Preplanned programme schedules will be regularly checked for seasonal adjustments (e.g. daylight savings beginning and end). Every effort will be made to eliminate unnecessary night time external lighting, ensuring that safety and security are the highest priority. When appropriate, lighting will be designed for automatically shut-off when spaces are not in use.

Water

All leakages related to plumbing and/or intrusion will be repaired immediately.



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Green Shield and Landscaping

Wainganga College of Engineering and Management, Nagpur is located near gumhaon railway station, Dongargaon, Wardha road Nagpur, Maharashtra, India. The Campus is significantly diverse with a variety of tree species. Most of these tree species are planted in different periods of time by the authorities of the College and have become an integral part of the campus. The trees of the college have increased the quality of life, not only to the college fraternity but also to the residents around of the college campus in terms of contributing to our environment by providing oxygen, improving air quality, climate amelioration, conservation of water, preserving soil, by regulating the effects of the sun, rain and wind. Leaves absorb and filter the sun's radiant energy, keeping things cool in summer. Different species of trees in the campus gives a spectacular green ambience with vibrant colors which gives the students a favorable study environment.

The survey/study of campus flora has revealed that, it encompasses a rich diversity of Plants of about 1715 in number belonging to different families. All the plants which were identified during green auditing in the campus were tabulated below with scientific names with Author citation.

In the category of trees, 1364 number of trees is found in the campus. Most of the Plants in the campus are having medicinal, religious and environmental importance, making the campus a rich heritage. In the category of shrubs 283 different types are found with different beauty of campus. Our campus has some unique rare plants like *Mitragynaparvifolia*, *Terminalia arjuna*, *Couropitaguianensis*, *Borassusflabellifer* (Palmyra - Our state tree). These rare trees should be protected. Besides *Roystoneaeregia*, *Dypsisleptocheilos*, *Ptychospermamacarthurii* add greenery ambience to our campus.





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Binomial Name	Common Name	Family
<i>Lagerstroemia speciosa</i> (L.) Pers.	Pride Of India	Lythraceae
<i>Ficusbenjamina</i> L.	Weeping fig	Moraceae
<i>Azadirachtaindica</i> A.Juss.	Neem tree	Meliaceae
<i>Polyalthialongifolia</i> (Sonn.) Thwaites	Indian mast tree	Annonaceae
<i>Phyllanthusemblica</i> L.	Indian gooseberry	Euphorbiaceae
<i>Peltophorumpterocarpum</i> (DC.) K.Heyne	Copperpod	Caesalpiniaceae
<i>Moringaoleffera</i> Lam	Drumstick tree	Moringaceae
<i>Citrus limon</i> (L.) Osbeck	Lemon	Rutaceae
<i>Cocos nucifera</i> L.	Coconut palm	Areaceae

<i>Delonix regia</i> (Hook.) Raf.	Flame Tree	Caesalpiniaceae
<i>Rhapis excelsa</i> (Thunb.) Henry	Lady palm	Areaceae
<i>Dypsis leptocheilos</i> (Hodel) Beentje&J.Dransf.	Redneck Palm	Areaceae
<i>Ficus religiosa</i> L.	Papal tree	Moraceae
<i>Mangifera indica</i> L.	Mango tree	Anacardiaceae
<i>Samanea saman</i> (Jaco) Men.	Rain tree	Mimosaceae
<i>Cassia fistula</i> L.	The Indian Laburnum	Fabaceae
<i>Guazuma ulmifolia</i> Lam.	West Indian elm	Sterculiaceae
<i>Terminalia catappa</i> L.	Indian Ahnond	Combretaceae
<i>Borassus flabellifer</i> L.	Palmyra Palm tree	Areaceae
<i>Pongamia pinnata</i> (L.) Pierre	Indian beech tree / PongaMaram	Fabaceae
<i>Bambusa vulgaris</i> Schrad.	Golden Bamboo	Poaceae
<i>Senna siamea</i> (Lam.) H. S.Irwin & Barneby	Ironwood	Fabaceae
<i>Bauhinia purpurea</i> L.	Purple Orchid tree	Fabaceae
<i>Plumeria alba</i> L.	White champa	Apocynaceae
<i>Calophyllum inophyllum</i> L.	Beauty Leaf	Clusiaceae
<i>Nyctanthes arbor-tristis</i> L.	Coral Jasmine	Oleaceae
<i>Punica granatum</i> L.	Pomegranate	Lythraceae




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<i>Ficus racemosa</i> L.	Cluster Fig	Moraceae
<i>Tecoma scans</i> (L.) Juss. ex Kunth	Yellow trumpet	Bignoniaceae
<i>Murraya paniculata</i> (L.) Jack	Orange Jessamine	Rutaceae
<i>Butea monosperma</i> (Lam.) Taub.	Flame of the Forest	Fabaceae
<i>Tabebuia rosea</i> (Bertol.) Bertero ex A.DC.	Rosy Trumpet Tree	Bignoniaceae
<i>Cassia roxburghii</i> DC.	Red Cassia	Caesalpiniaceae
<i>Tamarindus indica</i> L.	Tamarind	Fabaceae
<i>Couroupita guianensis</i> Aubl.	Cannon Ball Tree	Lecythidaceae
<i>Madhuca longifolia</i> (L. Koenig ex L.) J. F. Macbr.	Indian Butter Tree	Sapotaceae
<i>Ceiba pentandra</i> (L.) Gaertn.	White silk cotton Tree	Malvaceae



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<i>Phyllanthus acidus</i> (L.) Skeels	Star Gooseberry	Phyllanthaceae
<i>Bauhinia tomentosa</i> L.	Yellow Orchid Tree	Caesalpiniaceae
<i>Aegle marmelos</i> (L.) Correa.	Bael Tree	Rutaceae
<i>Haldina cordifolia</i> (Roxb.) Ridsdale	Haldu	Rubiaceae
<i>Millingtonia hortensis</i> L.f.	Tree Jasmine	Bignoniaceae
<i>Mimusops elengi</i> L.	Asian bullet wood	Sapotaceae
<i>Sterculia foetida</i> L.	Java Olive	Sterculiaceae
<i>Plumeria rubra</i> L.	Plumeria	Apocynaceae
<i>Ptychosperma macarthurii</i> (H.Wendl. ex H.J.Veitch) H.Wendl. exHook.f.	Cluster palm	Arecaceae




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