SRI DURGA MALLESWARA
SIDDHARTHA MAHILA KALASALA: VIJAYAWADA

(An Autonomous college in the jurisdiction of Krishna University)

Re-accredited at 'A++' grade by NAAC

A College with Potential for Excellence

PROMOTION OF ECO-FRIENDLY "GO-GREEN INITIATIVES"

1. **Title of the Practice**
   Promotion of Eco-Friendly "Go-Green Initiatives"

2. **Objectives**
   Promoting eco-friendly practices and green initiatives among all stakeholders of the institution is one of the best practices which instils a sustainable lifestyle through green practices by promoting responsibility towards nature.

3. **The Context**
   With rapid urbanization threatening to deplete natural greenery and resources, the only solution is to promote a sustainable green lifestyle among the next generation. Rising heat waves and freak weather conditions urge people to adopt green practices.

4. **The Practice**

   The Eco Club carries out a number of initiatives such as conducting green audits, wastewater recycling, maintenance of organic gardens, composting unit, greenhouses, medicinal gardens, and use of environmentally friendly practices. Students actively participate in go-green campaigns, tree planting programs, and the maintenance of green cover on the campus. Rainwater harvesting, waste management, plastic-free campus, vermicomposting, and water conservation are some eco-friendly initiatives practised. Energy-efficient technologies and solar energy are widely practised.

5. **The Evidence of Success**

   - The College has been awarded the Best Eco-Friendly College Award along with the Green Institution Award.
   - ISO Certification has been awarded for Clean and Hygiene practices.
   - Innovative start-ups which are eco-friendly have been awarded Certificates of Appreciation.

6. **Problems Encountered**
   - Reduction in the use of plastics is a challenge despite regulatory measures.
   - Lack of proper drainage is another problem encountered.
   - Recycling of electronic waste and disposal of waste is challenging as the college is located centrally in the city.

7. **Notes**
   - Reduction in the use of paper is the next plan of action by encouraging paperless offices and go-digital initiatives.
   - Noise-free generators are used for power backup, reducing noise pollution.
   - The campus is noted for its biodiversity with a number of trees planted on the campus. Fruit trees, flowering trees, plants like Jamun, coconut, neem, mango, orange, banana, sampangi, kadamba and majestic trees give the campus an eco-friendly ambience.
   - Van Mahotsav, Vanam-Manam, and other occasions promote green graduation and green initiatives.

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PROMOTION OF ECO FRIENDLY AND GO-GREEN INITIATIVES

"Take care of nature it will take care of you"

SUMMARY OF OBSERVATIONS:

Sri Durga Malleswara Siddhartha Mahila Kalasala believes in individual and collective effort to preserve and maintain the environment on the planet earth. Faculty and students are aware of the need for environmental protection with an aim to make each individual environmentally responsible through environmental protection and sustainability measures. A number of best practices such as Rain water Harvesting through percolation pits, Roof Top Harvesting into a well and through Rain Garden, collecting reject water from RO plant to divert the water to wash areas of the hostels and to garden are in practice. Calculation of Carbon Foot Print and Water Foot Print, Solid Waste Management through different methods of composting and Garbage enzyme, energy conservation through renewable(solar) energy, usage of LED bulbs, calculated student - tree ratio, tree plantation in the neighbouring community, promoting Vanam- Manam the initiative of Government of A.P., e-waste reuse, recycling of paper, Bio-fashion show to understand the concept of bio-degradable and non-bio degradable waste, segregation of waste to use eco-friendly material on the campus etc., are adopted by the institution.

LIST OF FAUNA IDENTIFIED ON THE CAMPUS (INVERTEBRATES)

S.NO	COMMON NAME	*ZOOLOGICAL NAME*	PHYLUM
1	Earthworm	*Megascolex*	Annelida
2	Millipede	*Spirostreptus*	Arthropoda
3	Millipede	*Julus*	Arthropoda
4	Centipede	*Scolopendra*	Arthropoda
5	Scorpion	*Palaemneus*	Arthropoda
6	Spider	*Aranaea*	Arthropoda
7	Spider	*Galeodes*	Arthropoda
8	Grasshopper	*Locust*	Arthropoda
9	Tailed Jay,Green spotted triangle	Graphium agamemnon	Arthropoda
10	Dragon fly	*Petalura*	Arthropoda
11	Butter fly	*Kalima*	Arthropoda
12	Butter fly	*Papillo*	Arthropoda
13	House fly	*Musca domestica*	Arthropoda
14	Mosquito	*Culex*	Arthropoda
15	Mosquito	*Anophelus*	Arthropoda
16	Large black ant	*Monomorium*	Arthropoda
17	Black house ant	*Componotus*	Arthropoda
18	Small red ant	*Solenopsis*	Arthropoda
19	Winged ant	*Dorylus*	Arthropoda
20	Stick insect	*Carausius*	Arthropoda
21	Praying mantis	*Mantis*	Arthropoda
22	Honey bee	*Apis indica*	Arthropoda
23	Wasp	*Vespa*	Arthropoda
24	Moth	*Tinia*	Arthropoda
25	Silver fish	*Lepisma*	Arthropoda
26	Cockroach	*Periplanata americana*	Arthropoda
27	Termite	*Zootarmopsidis*	Arthropoda
28	Cricket	*Gryllus domestica*	Arthropoda
29	Beetle	*Tenebris molitar*	Arthropoda
30	Slug	*Vaginulus*	Mollusca
31	Garden snail	*Helix*	Mollusca

LIST OF FAUNA IDENTIFIED ON THE CAMPUS (VERTEBRATES)

S.NO	COMMON NAME	ZOOLOGICAL NAME	CLASS
1	Frog	*Rana hexadactyla*	Amphibia
2	Toad	*Bufo bufo*	Amphibia
3	Garden lizard	*Calotes versicolar*	Reptilia
4	Wall lizard	*Hemidactylus*	Reptilia
5	House lizard	*Gecko gecko*	Reptilia
6	Cobra	*Naja naja*	Reptilia
7	Krait	*Bungarus caeruleus*	Reptilia
8	Crow	*Carvus splendensis*	Aves
9	Myna	*Aeriodotheris tristis*	Aves
10	Parrot	*Psittacula eupatria*	Aves
11	Cuckoo	*Eudynamis scolopaceues*	Aves
12	Pigeon	*Columba livia*	Aves
13	Wood pecker	*Dinopium benghalensis*	Aves
14	Owl	*Bubo bubo*	Aves
15	Blue jay	*Coracius indica*	Aves
16	Squirrel	*Funambulus*	Mammalia
17	Mongoose	*Herpestes*	Mammalia
18	Rat	*Rattus rattus*	Mammalia
19	Mouse	*Mus musculus*	Mammalia
20	Bandicoot	*Perameles*	Mammalia
21	Dog	*Canis femiliaris*	Mammalia
22	Cat	*Felis domesticus*	Mammalia
23	Bat	*Pteropus*	Mammalia

FEW FAUNAL COMPONENTS :

Bush Katydid

FEW FLORAL COMPONENTS:

Syzigium cumini

PLASTIC FREE CAMPUS

FLORA OF SRI DURGA MALLESWARA SIDDHARTHA MAHILA KALASALA CAMPUS

S.No.	Botanical Name	Family
1	*Abelmoscus moschatus -H*	*Malvaceae*
2	*Abutilon crispum –S*	*Malvaceae*
3	*Acalypha ciliata -H*	*Euphorbiaceae*
4	*Acalypha hispida –S*	*Euphorbiaceae*
5	*Acalypha indica -H*	*Euphorbiaceae*
6	*Acalypha wilkisiana -S*	*Euphorbiaceae*
7	*Achras sapota-T*	*Sapotaceae*
8	*Achyranthus aspera -H*	*Amaranthaceae*
9	*Acorus calamus -H*	*Acoraceae*
10	*Adaphoda vasica -S*	*Acanthaceae*
11	*Adenium obesum -H*	*Apocyanaceae*
12	*Adonidia merrillii –T*	*Arecaceae*
13	*Aegle marmelose-T*	*Rutaceae*
14	*Aeruva lanata -H*	*Amaranthaceae*
15	*Agalonema costatum –H*	*Araceae*
16	*Agave americanum-H*	*Agavaceae*
17	*Aglaonema anyamanee-H*	*Araceae*
18	*Albizzia lebbek -T*	*Mimosaceae*
19	*Allamanda blanchetii (purple allamanda) -S*	*Apocyanaceae*
20	*Allamanda cathartica –S*	*Apocyanaceae*
21	*Alocasia clypeola- H*	*Araceae*
22	*Alocasia sp –H*	*Araceae*
23	*Aloe vera -H*	*Liliaceae*
24	*Alpinia galangal -H*	*Zingiberaceae*
25	*Alstonia scholaris -T*	*Apocyanaceae*
26	*Alternanthera bettziachiana -H*	*Amaryllidaceace*
27	*Alternanthera brasiliana-H*	*Amaranthaceae*
28	*Alternanthera ficoidea-H*	*Amaranthaceae*
29	*Alternanthera philoxeroides –H*	*Amaranthaceae*
30	*Alternanthera philozeroids-H*	*Amaranthaceae*
31	*Alternanthera sessilis - H*	*Amaranthaceae*
32	*Amaryllis gracili -H*	*Amaryllidaceace*
33	*Amorphophallus paeoniifoliu svar.campanulatus -H*	*Araceae*
34	*Amorphophallus paeoniifolius-H*	*Araceae*

35	*Andrographis echoides –H*	*Acanthaceae*
36	*Andrographis paniculata -H*	*Acanthaceace*
37	*Angelonia salicariifolia -H*	*Plantaginaceae*
38	*Anisomelus malabarica -H*	*Lamiaceae*
39	*Annona reticulata -T*	*Annonaceae*
40	*Annona squamosa -T*	*Annonaceae*
41	*Antigonon leptopus -Cr*	*Polyganaceae*
42	*Aralia dwarf-H*	*Araliaceea*
43	*Aralia sp –H*	*Araliaceae*
44	*Aralia sp-S*	*Araliaceea*
45	*Araucaria cookie -T*	*Pinaceae*
46	*Areca lutescens -T*	*Palmae*
47	*Argyria nervosa - Cr*	*Convolvulaceae*
48	*Aristolochia indica - Cr*	*Aristolochiaceae*
49	*Artabotrys odoratissimus -S*	*Annonaceae*
50	*Artemisia sp -H*	*Asteraceae*
51	*Asclepias curassavica -S*	*Asclepiadaceae*
52	*Asparagus plumosus -H*	*Asparagaceae*
53	*Asparagus racemosus -H*	*Asparagaceae*
54	*Asparagus aethiopicus -H*	*Asparagaceae*
55	*Asplenium nidus-H*	*Aspleniacea*
56	*Asystasia coromandeliana -H*	*Acanthaceae*
57	*Asystasia gangetica -H*	*Acanthaceae*
58	*Azadirachta indica-T*	*Meliaceae*
59	*Bambusa ventricosa -S*	*Poaceae*
60	*Bambusa vulgaris -S*	*Poaceae*
61	*Bauhinia acuminata -S*	*Caesalpinaceae*
62	*Bauhinia acuminate -S*	*Caesalpinaceae*
63	*Bauhinia purpurea-T*	*Caesalpinaceae*
64	*Bauhinia tomentosa - S*	*Caesalpinaceae*
65	*Beaucarnea recurvate-H*	*Asparagaceae*
66	*Begonia sp -H*	*Begoniaceae*
67	*Boerhaavia diffusa -H*	*Nyctaginaceae*
68	*Boerhaavia erecta -H*	*Nyctaginaceae*
69	*Bombax ceiba –T*	*Bombacaceae*
70	*Borreria hispida –H*	*Rubiaceae*
71	*Bougainvillea Sp -S*	*Nyctaginaceae*

72	*Bryophyllum delagoense -H*	*Crassulaceae*
73	*Bryophyllum pinnatum -H*	*Crassulaceae*
74	*Butea monospermum-T*	*Fabaceae*
75	*Caladium bicolor -H*	*Araceae*
76	*Calathea makoyana-H*	*Marantaceae*
77	*Calathea ornata –H*	*Marantaceae*
78	*Calathea zebrine-H*	*Marantaceae*
79	*Calliandra haematocephala -S*	*Mimosaceae*
80	*Callistemon citrinus -S*	*Myrtaceae*
81	*Callistemon linearis -T*	*Myrtaceae*
82	*Campsis grandiflora – Cr*	*Bignoniaceae*
83	*Canna indica -H*	*Cannaceae*
84	*Carica papaya –T*	*Caricaceae*
85	*Carica papaya Dwarf–T*	*Caricaceae*
86	*Caryota urens -T*	*Palmae*
87	*Cassia fistula -T*	*Caesalpinaceae*
88	*Cassia occidentalis -H*	*Caesalpinaceae*
89	*Cassia tora -H*	*Caesalpinaceae*
90	*Catharanthus roseus -H*	*Apocyanaceae*
91	*Celosia cristata -H*	*Amaranthaceae*
92	*Centella asiatica -H*	*Umbelliferae*
93	*Chlorophytum comosum -H*	*Liliaceae*
94	*Chrysothemis pulchella -H*	*Gesneriaceae*
95	*Cissus quadrangularis - Cr*	*Vitaceae*
96	*Cissus rotundifolia - Cr*	*Vitaceae*
97	*Citrus limon -T*	*Rutaceae*
98	*Citrus sinensis -T*	*Rutaceae*
99	*Cleome viscosa -H*	*Capparidaceae*
100	*Clerodendron splendens -S*	*Verbenaceae*
101	*clerodendrum chinense-S*	*Verbenaceae*
102	*Clitorea ternatea – Cr*	*Fabaceae*
103	*Coccinia indica - Cr*	*Cucurbitaceae*
104	*Cocculus hirsutus - Cr*	*Menispermaceae*
105	*Cocos nucifera -T*	*Palmae*
106	*Codiaeum variegiatum –S*	*Euphorbiaceae*
107	*Coleus aromaticus - H*	*Labiatae*
108	*Coleus blumei -H*	*Labiatae*

109	*Coleus sp (green) -H*	*Lamiaceae*
110	*Colocasia sp-H*	*Araceae*
111	*Commelina benghalensis -H*	*Commelinaceae*
112	*Commelina diffusa -H*	*Commelinaceae*
113	*Corchorus aestuans - H*	*Malvaceae*
114	*Cordyline fruticosa (syn Dracaena terminalis) -H*	*Asparagaceae*
115	*Cosmos sulfureus -H*	*Asteraceae*
116	*Costus igneous-H*	*Costaceae*
117	*Costus speciosus –H*	*Costaceae*
118	*Crassula ovate -H*	*Crassulaceae*
119	*Crossandra infundibuliformis -H*	*Acanthaceae*
120	*Crinum latifolium-H*	*Amaryllidaceae*
121	*Crotalaria hebecarpa-H*	*Fabaceae*
122	*Croton bonplandianum -H*	*Euphorbiaceae*
123	*Croton sp -S*	*Euphorbiaceae*
124	*Cuphea hyssopifolia -H*	*Lythraceae*
125	*Curcuma aromatica -H*	*Zingiberaceae*
126	*Curcuma zedoria -H*	*Zingiberaceae*
127	*Cycas circinalis -T*	*Cycadaceae*
128	*Cycas revoluta -T*	*Cycadaceae*
129	*Cymbopogon citratus -H*	*Poaceae*
130	*Cynodon dactylon - H*	*Poaceae*
131	*Cyperus alternifolius -H*	*Poaceae*
132	*Cyperus rotundus -H*	*Poaceae*
133	*Dactyloctenium aegypticum - H*	*Poaceae*
134	*Delonix regia -T*	*Caesalpinaceae*
135	*Dieffenbachia amoena-H*	*Araceae*
136	Dieffenbachia exotica -H	*Araceae*
137	*Dieffenbachia seguine-H*	*Araceae*
138	*Digera muricata -H*	*Amaranthaceae*
139	*Dioscorea bulbifera - Cr*	*Diosoreaceae*
140	*Dracaena fragrance-H*	*Liliaceae*
141	*Dracaena marginata-H*	*Liliaceae*
142	*Dracaena reflexa –H*	*Liliaceae*
143	*Duranta repens-S*	*Verbenaceae*
144	*Dypsis lutescens-T*	*Arecaceae*
145	*Ecbolium liguistrinum -H*	*Acanthaceae*

146	*Echinoceros sps-H*	*Cactaceae*
147	*Emblica officinalis-T*	*Euphorbiaceae*
148	*Epiphyllum Sps-H*	*Cactaceae*
149	*Epipremnum aureum (marble queen)- Cr*	*Araceae*
150	*Equisetum sp-H*	*Equisetaceae*
151	*Eranthemum pulchellum –S*	*Acanthaceae*
152	*Euphorbia antiquorum-H*	*Euphorbiaceae*
153	*Euphorbia hetrophylla-H*	*Euphorbiaceae*
154	*Euphorbia hypercifolia-H*	*Euphorbiaceae*
155	*Euphorbia Indica-H*	*Euphorbiaceae*
156	*Euphorbia milii [thai hybrid]-H*	*Euphorbiaceae*
157	*Euphorbia pulcherrimma-S*	*Euphorbaceae*
158	*Euphorbia splendens-H*	*Euphorbiaceae*
159	*Euphorbia tirucalli –S*	*Euphorbiaceae*
160	*Euphorbia tiythymaloides –H*	*Euphorbiaceae*
161	*Euphorbia viguieri-H*	*Euphorbiaceae*
162	*Evolvulus alsinoides - H*	*Convolvulaceae*
163	*Exocaeria bicolor –H*	*Euphorbiaceae*
164	*Feronia elephantum-T*	*Rutaceae*
165	*Ficus benjamina-S*	*Moraceae*
166	*Ficus elastica-S*	*Moraceae*
167	*Ficus longifolia-S*	*Moraceae*
168	*Ficus pumila – Cr*	*Moraceae*
169	*Ficus racemosa –T*	*Moraceae*
170	*Ficus religiosa-T*	*Moraceae*
171	*Ficus triangularis-S*	*Moraceae*
172	*Filicium Decipiens –S*	*Sapindaceae*
173	*Frucraea gigantea-H*	*Amaryllidaceae*
174	*Galphimea gracilis –S*	*Malphighiaceae*
175	*Ganoderma racinaceum simplex (fungus)*	*Ganodermataceae*
176	*Gardenia jasminoides-S*	*Rubiaceae*
177	*Gliricidia sepium-T*	*Fabaceae*
178	*Gomphrena celosioides-H*	*Amaranthaceae*
179	*Gomphrina globosa-H*	*Amaranthaceae*
180	*Gossypium arboreum - S*	*Malvaceae*
181	*Gratphyllum pictum-S*	*Acanthaceae*
182	*Gynandropsis pentaphylla-H*	*Capparidaceae*

183	*Hamelia patens-S*	*Rubiaceae*
184	*Hibiscus cannabinus-H*	*Malvaceae*
185	*Hibiscus micranthus –H*	*Malvaceae*
186	*Hibiscus rosa sinensis-H*	*Malvaceae*
187	*Hibiscus schizopepalus-S*	*Malvaceae*
188	*Hippeastrum puniceum-H*	*Amaryllidaceae*
189	*Holoptelea integrifolia-T*	*Ulmaceae*
190	*Hybanthus enneaaspermis-H*	*Violaceae*
191	*Hydrilla verticellata-H*	*Hydrocharitaceae*
192	*Hymenocallis littorlis-H*	*Amaryllidaceae*
193	*Hyptis suaveolens –S*	*Lamiaceae*
194	*Impatiens balsamina-H*	*Balsaminaceae*
195	*Ipomea batatas- Cr*	*Convolvulaceae*
196	*Ipomea coccinea-H*	*Convolvulaceae*
197	*Ipomea palata – Cr*	*Convolvulaceae*
198	*Ixora coccinia-S*	*Rubiaceae*
199	*Ixora parviflora-S*	*Rubiaceae*
200	*Ixora singaporensis-S*	*Rubiaceae*
201	*Jacquemontia pentnthos – Cr*	*Convolvulaceae*
202	*Jaminum sambac-S*	*Oleaceae*
203	*Jasminum grandiflorum-S*	*Oleaceae*
204	*Jasminum officinale-S*	*Oleaceae*
205	*Jatropha multifida-S*	*Euphorbiaceae*
206	*Jatropha pandurifolia-S*	*Euphorbiaceae*
207	*Juniperus sp-T*	*Cupperssaceae*
208	*Kaempferia pulchra-H*	*Zingiberaceae*
209	*Kalanchoe daigremontiana-H*	*Crassulaceae*
210	*Kleinia grandiflora –H*	*Asteraceae*
211	*Kopsia fruiticosa-S*	*Apocyanaceae*
212	*Kyllinga nemoralis –H*	*Cyperaceae*
213	*Ladebouria revoluta-H*	*Asparagaceae*
214	*Lagerstroemia indica-T*	*Lythraceae*
215	*Lagerstroemia speciosa-T*	*Lythraceae*
216	*Lagerstromia sp-T*	*Lythraceae*
217	*Lantana camera-S*	*Verbenaceae*
218	*Lantana depressa-S*	*Verbenaceae*
219	*Lawsonia alba-S*	*Lythraceae*

220	*Leucaena leucocephala-T*	*Mimosaceae*
221	*Leucophyllum frutescence-S*	*Scrophulariaceae*
222	*Leuenbergeria bleo-S*	*Cactaceae*
223	*Licuala grandis-T*	*Palmae*
224	*Luffa acutangula –Cr*	*Cucurbitaceae*
225	*Luffa cylindrica-Cr*	*Cucurbitaceae*
226	*Mamillaria sps-H*	*Cactaceae*
227	*Mangifera indica-T*	*Anacardiaceae*
228	*Maranta arundinaceaficum –H*	*Marantaceae*
229	*Maranta variegate-H*	*Marantaceae*
230	*Marsilea sp-H*	*Marsileaceae*
231	*Melaleuca goldea –S*	*Myrtaceae*
232	*Merremia emarginata -H*	*Convolvuaceae*
233	*Millettia pinnata -T*	*Fabaceae*
234	*Millingtonia hortensis –T*	*Bignoniaceae*
235	*Mimusops elengi-T*	*Sapotaceae*
236	*Mollugo nudicaulis –H*	*Molluginaceae*
237	*Monstera deliciosa- Cr*	*Araceae*
238	*Moringa olifera-T*	*Moringaceae*
239	*Morus alba –T*	*Moraceae*
240	*Mukia maderaspatana – Cr*	*Cucurbitaeae*
241	*Muntingia asiatica-T*	*Elaeocarpaceae*
242	*Murraya koenegii-T*	*Rutaceae*
243	*Murraya paniculata-S*	*Rutaceae*
244	*Musa paradisiaca –T*	*Musaceae*
245	*Mussaenda philippica –S*	*Rubiaceae*
246	*Nelumbo nucifera-H*	*Nymphaeaceae*
247	*Nelumbo sp - H*	*Nelumbonaceae*
248	*Neolamarckia cadamba-T*	*Rubiaceae*
249	*Nephrolepis falcata (pteridophyte)-H*	*Nephrolepidaceae*
250	*Nerium indicum-S*	*Apocyanaceae*
251	*Nyctanthes arbortristis-T*	*Oleaceae*
252	*Nymphaea sp - H*	*Nymphaeaceae*
253	*Nymphaea stellata-H*	*Nymphaeaceae*
254	*Nymphaea Cynthia Ann –H*	*Nymphaeaceae*
255	*Ocimum americanum –H*	*Lamiaceae*
256	*Ocimum basilicum –H*	*Lamiaceae*

257	*Ocimum basilicum var thyrsifolia-H*	*Lamiaceae*
258	*Ocimum gratissimum –H*	*Lamiaceae*
259	*Ocimum tenuiflorum –H*	*Lamiaceae*
260	*Oldenlandia umbellate-H*	*Rubiaceae*
261	*Operculina turphethum – Cr*	*Convolvulaceae*
262	*Ophiopogan planiscapus –H*	*Asparagaceae*
263	*Ophiopogon japonicas-H*	*Asparagaceae*
264	*Ophiopogon planiscapus-H*	*Asparagaceae*
265	*Opuntia microdasys-H*	*Cactaceae*
266	*Opuntia Sp-H*	*Cactaceae*
267	*Opuntia tuna-H*	*Cactaceae*
268	*Oxalis corniculata-H*	*Oxalidaceae*
269	*Pachystachys latea-H*	*Acanthaceae*
270	*Panicum repens –H*	*poaceae*
271	*Parthenium hysteroforus-H*	*Asteraceae*
272	*Passiflora lcarniculata – Cr*	*Passifloraceae*
273	*Peltophorum pterocarpum-T*	*Caesalpinaceae*
274	*Pennisetum setaceum rubrum-H*	*Poaceae*
275	*Pennisetum setae-H*	*Poaceae*
276	*Pentalinon luteum- Cr*	*Apocyanaceae*
277	*Pentas lanceolata-H*	*Rubiaceae*
278	*Petunia hybrid-H*	*Solanaceae*
279	*Philodendron Ceylon gold.- Cl*	*Araceae*
280	*Philodendron lime-Cl*	*Araceae*
281	*Philodendron sagittifolium –Cl*	*Araceae*
282	*Philodendron scandens –Cl*	*Araceae*
283	*Philodendron xanadu – Cl*	*Araceae*
284	*Phyllanthus madraspatana –H*	*Euphorbiaceae*
285	*Phyllanthus niruri-H*	*Euphorbiaceae*
286	*Phyllostachys aurea-S*	*poaceae*
287	*Physalis minima-H*	*Solanaceae*
288	*Pilea serpyllacea-T*	*Urticaceae*
289	*Piper longum- Cr*	*Piperaceae*
290	*Piper nigrum- Cr*	*Piperaceae*
291	*Pisonia alba –T*	*Nyctaginaceae*
292	*Pityrogramma calomelanos –H*	*Pteridaceae*
293	*Plumbago auriculata-H*	*Plumbaginaceae*

294	*Plumbago zeylanica-H*	*Plumbaginaceae*
295	*Plumeria alba-T*	*Apocyanaceae*
296	*Plumeria pudica-S*	*Apocyanaceae*
297	*Plumeria rubra –T*	*Apocyanaceae*
298	*Podranea brycei- Cr*	*Bignoniaceae*
299	*Poinciana pulcherrimma-S*	*Caesalpinaceae*
300	*Polianthes tuberosa-H*	*Asparagaceae*
301	*Polyalthia longifolia –T*	*Annonaceae*
302	*Portulaca grandiflora-H*	*Portulacaceae*
303	*Portulaca oleracea-H*	*Portulacaceae*
304	*Pothos sp- Cr*	*Araceae*
305	*Prosopis specigera- T*	*Mimosaceae*
306	*Pseuderanthemum carruthersii –S*	*Acanthaceae*
307	*Pseudoeranthemum reticulatum-S*	*Acanthaceae*
308	*Pseudomussaenda flava-S*	*Rubiaceae*
309	*Psidium guajava-T*	*Myrtaceae*
310	*Punica granatum –T*	*Punicaceae*
311	*Quisqualis indica –Cl*	*Combretaceae*
312	*Rauwolfia tetraphylla –H*	*Apocyanaceae*
313	*Ravenala madagascariensis-T*	*Sterilitziaceae*
314	*Ravenia spectabilis-S*	*Rutaceae*
315	*Rhapis excelsa-H*	*Palmae*
316	*Rhoeo discolour –H*	*Commelinaceae*
317	*Rhynchosia minima – Cr*	*Fabaceae*
318	*Ricinus communis –T*	*Euphorbiaceae*
319	*Rosa sp –S*	*Rosaceae*
320	*Roystonea regia –T*	*Areaceae*
321	*Ruellia simplex -H*	*Acanthaceae*
322	*Ruellia tuberosa –H*	*Acanthaceae*
323	*Russelia juncea –S*	*Scrophulariaceae*
324	*Sansevieria cylindrica-H*	*Asparagaceae*
325	*Sansevieria roxburghiana –H*	*Agavaceae*
326	*Sansevieria trifasciata-H*	*Asparagaceae*
327	*Sapindus trifoliatus –T*	*Sapindaceae*
328	*sauropus androgynous-S*	*Phyllanthaceae*
329	*Schefflera arboricola variegata –S*	*Araliaceae*
330	*Scoparia dulcis -H*	*Plantaginaceae*

331	*Sida acuta -H*	*Malvaceae*
332	*Sida cordifolia –H*	*Malvaceae*
333	*Solanum melongena-H*	*Solanaceae*
334	*Solanum nigrum-H*	*Solanaceae*
335	*Solanum tuberosum –H*	*Solanaceae*
336	*Solidago canadensis-H*	*Asteraceae*
337	*Spathodium companulata-T*	*Bignoniaceae*
338	*spathoglottis plicata –H*	*Orchidaceae*
339	*Stachytarpheta jamaicensis –H*	*Verbenaceae*
340	*Syngonium ' Neon' pink – Cr*	*Araceae*
341	*Syngonium podophyllum – Cr*	*Araceae*
342	*Syzygium myrtifolium-S*	*Myrtaceae*
343	*Syzygium cumini-T*	*Myrtaceae*
344	*Tabebuia rosea –T*	*Bignoniaceae*
345	*Taberemontana divaricate-S*	*Apocynaceae*
346	*Tectona grandis –T*	*Verbenaceae*
347	*Thespesia populnea-T*	*Malvaceae*
348	*Thuja occidentalis-S*	*Cupressaceae*
349	*Tinospora cordifolia - Cr*	*Menispermaceae*
350	*Tradescantia compacta –H*	*Commelinacea*
351	*Tradescantia pallida-H*	*Commelinaceae*
352	*Tradescantia spathacea –H*	*Commelinacea*
353	*Trianthema portulacastrum –H*	*Aizoaceae*
354	*Triumphfetta rhomboidea -H*	*Malvaceae*
355	*Turnera ulmifolia –H*	*Passifloraceae*
356	*Vallaris solanacea- Cr*	*Solanaceae*
357	*Vanda tessellata –H*	*Orchidaceae*
358	*Vernonia anthelmintica –H*	*Asteraceae*
359	*Vernonia cinerea-H*	*Asteraceae*
360	*Vigna unguiculata – Cr*	*Fabaceae*
361	*Wedelia chinensis –H*	*Asteraceae*
362	*Xanthosoma sagittifolium –H*	*Araceae*
363	*Yucca aloifolia -H*	*Asparagaceae*
364	*Yucca desmetiana-H*	*Asparagaceae*
365	*Zamia sp –H*	*zamiaceae*
366	*Zebrina pendula –H*	*Commelinacea*
367	*Zephyranthes candida –H*	*Amaryllidaceae*

368	*Zephyranthes citrina –H*	*Amaryllidaceae*
369	*Zephyranthes rosea –H*	*Amaryllidaceae*

T-Tree Cr -Creeper S-Shrub Cl -Climber H -Herb

List of plants on the campus in carbons sequestration notified by NASA

BOTANICAL NAME	FAMILY NAME	TYPE
Azadirachta Indica	*Meliaceae*	Tree
Moringa oleífera	*Moringaceae*	Tree
Leucophyllum frutescens	*Scrophulariaceae*	Shrub
Rosmarinus officinalis	*Lamiaceae*	Herb
Tecoma stans	*Bignoniaceae*	Small tree

Among the trees listed by Gujarat Ecological Education and Research Foundation the institution has the following trees to minimize global warming.

SCIENTIFIC NAME	LOCAL NAME	CARBON SEQUESTRATION (in lakh Tonnes in life Time)
Tectona grandis	Taeku	3.70
Eucalyptus Sp.	Eucalyptus	2.47
Azadirachta Indica	Vepa	1.45
Casuarina equisetifolia	Sarugudu	1.28

STUDENT - TREE RATIO = 2695:1152 (big 338+small 814)
= 2.3:1

Total area of the Institute (Sq. mts.)	Built up Area	Green Cover	Percentage of existing tree crown cover area
8.22 Acres	5.62 Acres	2.59	32%

ENERGY AUDIT

GREEN BUILDINGS & RENEWABLE ENERGY, ELECTRICAL POWER CONSUMPTION:

College and hostel maintain sustainability with well-ventilated rooms, provision for rainwater harvesting, passive lighting and solar panels. The Eco-club involves students in various activities encouraging them to carry on this good initiative even after leaving campus.

Star-rated electrical equipment is in use and energy-saving posters, stickers are displayed. Annual maintenance contracts for elevators and generators are in place. System administrators & programmers look after the maintenance of all computers and networking. All life science departments have good daylighting.

CRT monitors are replaced by LCD & LED monitors. Dot Matrix printers are replaced with laser printers

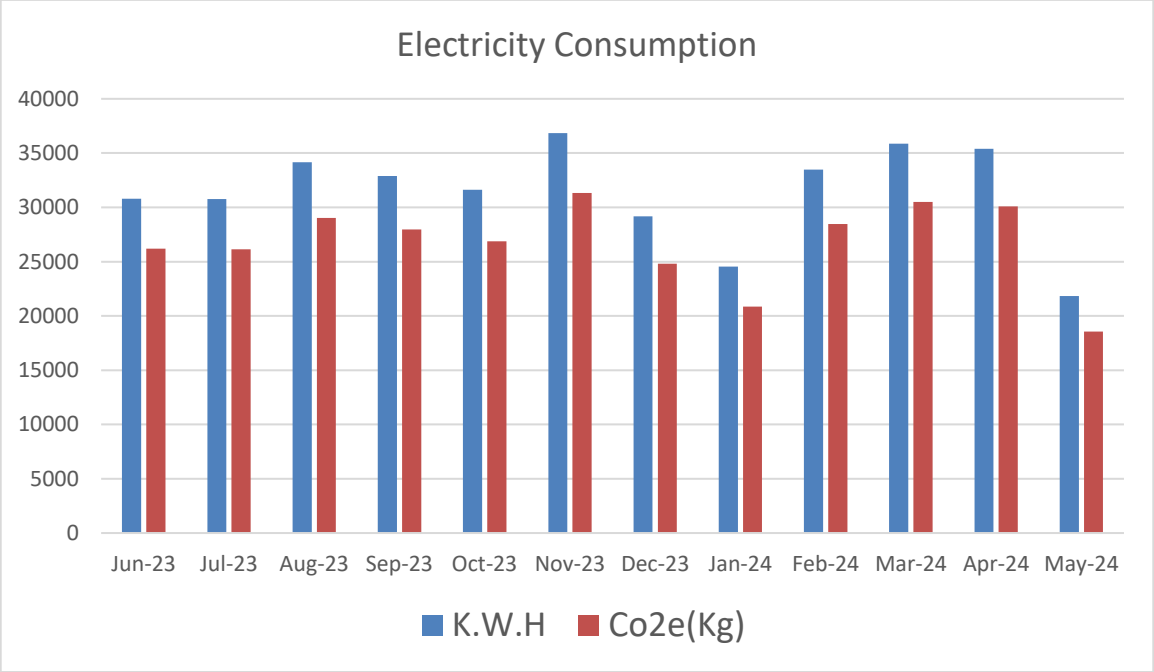
LED BULBS

RENEWABLE ENERGY RESOURCE - SOLAR PANELS:

Carbon foot print of the institution by considering electricity bills from June 2023 to May 2024

Month	K.W.H	Co_2e(Kg)
June 2023	30810	26188.5
July 2023	30763	26148.55
August 2023	34155	29031.75
September 2023	32893	27959.05
October 2023	31615	26872.75
November 2023	36853	31325.05
December 2023	29172	24796.2
January 2024	24540	20859
February 2024	33476	28454.6
March 2024	35871	30490.35
April 2024	35399	30089.15
May 2024	21826	18552.1

Graph showing reduction of carbon foot print based on Electricity consumption from June 2023 to May 2024.



- **November 2023 showing biggest carbon foot print** (High power consumption in October) and **smallest foot print is of May 2024** (low power consumption in April)

CARBON FOOT PRINT CALCULATION

Your Region : Andhra Pradesh Change Region?

Number of family members : 4

Number of LPG cylinders used per month : 1

Travel By Auto Rickshaw

Average distance travelled daily : 0 kms

Travel By Bus

Average distance travelled daily by bus : 15 kms

Travel By Private Vehicle (4 Wheeler)

Enter the distance travelled daily : 0 kms

Travel By Air (Annual)

Distance travelled annually: 0 kms

Electricity consumption per month : 60 kwh

Piped Natural Gas consumption per month : 0 m^3

Travel By Taxi

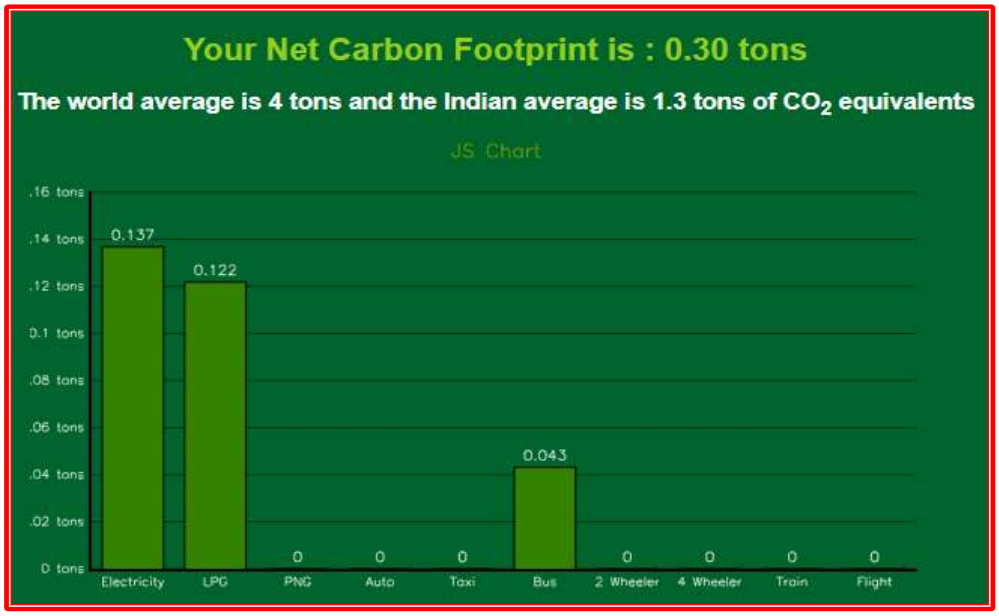
Average distance travelled daily 0 kms

Travel By Private Vehicle (2 Wheeler)

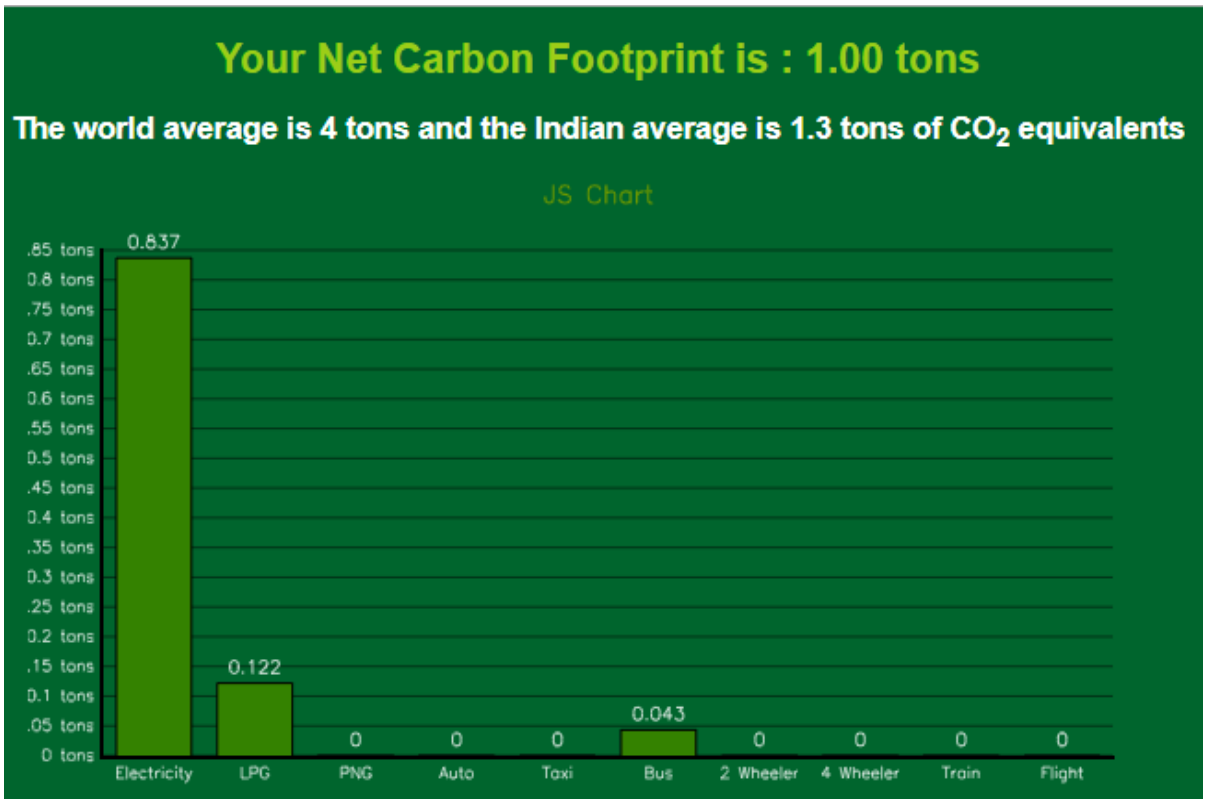
Enter the distance travelled daily : 0 kms

Travel By Train

Distance travelled monthly : 0 kms




WORLD ENVIRONMENT DAY
Forests: Nature at Your Service
In support of the UN International Year of Forests
5 JUNE
GoGreen
EACH ONE FOR A BETTER EARTH
ICICI Bank
khayaal aapka
Your Region : Andhra Pradesh
Change Region?
Number of family members : 4
Number of LPG cylinders used per month : 1
Travel By Auto Rickshaw
Average distance travelled daily : 0 kms
Travel By Bus
Average distance travelled daily by bus : 15 kms
Travel By Private Vehicle (4 Wheeler)
Enter the distance travelled daily : 0 kms
Travel By Air (Annual)
Distance travelled annually : 0 kms
Electricity consumption per month : 367 kwh
Piped Natural Gas consumption per month : 0 m3
Travel By Taxi
Average distance travelled daily : 0 kms
Travel By Private Vehicle (2 Wheeler)
Enter the distance travelled daily : 0 kms
Travel By Train
Distance travelled monthly : 0 kms


Your Net Carbon Footprint is : 1.00 tons
The world average is 4 tons and the Indian average is 1.3 tons of CO_2 equivalents
JS Chart
.85 tons
0.8 tons
.75 tons
0.7 tons
.65 tons
0.6 tons
.55 tons
0.5 tons
.45 tons
0.4 tons
.35 tons
0.3 tons
.25 tons
0.2 tons
.15 tons
0.1 tons
.05 tons
0 tons
0.837
0.122
0.043
0
Electricity
LPG
PNG
Auto
Taxi
Bus
2 Wheeler
4 Wheeler
Train
Flight

ENVIRONMENT AUDIT

WASTE MANAGEMENT

Sl No	Department / Block	Food /Organic waste / day	Non-plastic dry waste/day	Plastic, Thermocoal/ day	Management of organic waste	Management of other waste	Waste dumping pit	Waste Management practices
1	Botany	L	L	N	✓	✓	✓	✓
2	Chemistry	L	L	N	✓	✓	✓	✓
3	Commerce	L	L	N	✓	✓	✓	✓
4	Economics, History, Polity	L	L	N	✓	✓	✓	✓
5	English, Telugu, Hindi	L	L	N	✓	✓	✓	✓
6	Zoology	L	L	N	✓	✓	✓	✓
7	Electronics	L	L	N	✓	✓	✓	✓
8	Statistics	L	L	N	✓	✓	✓	✓
9	Library	L	M	N	✓	✓	✓	✓
10	Seminar Hall	N	L	N	✓	✓	✓	✓
11	English Lab	N	L	N	✓	✓	✓	✓
12	Near Canteen, Book Stall	L	L	N	✓	✓	✓	✓
13	Mana Tv	N	L	N	✓	✓	✓	✓
14	Spandana Block	L	M	M	✓	✓	✓	✓
15	Sadhana Block	L	M	M	✓	✓	✓	✓
16	Srujana Block	L	M	M	✓	✓	✓	✓
17	Mathematics	L	L	N	✓	✓	✓	✓
18	Physics	L	L	N	✓	✓	✓	✓
19	Micro Biology	L	L	N	✓	✓	✓	✓
20	Bio-Chemistry	L	L	N	✓	✓	✓	✓
21	Applied Nutrition	L	L	N	✓	✓	✓	✓
22	Computer	L	L	N	✓	✓	✓	✓
23	IQAC	N	L	N	✓	✓	✓	✓
24	Webinar	N	N	N	✓	✓	✓	✓
25	Director Room	L	L	L	✓	✓	✓	✓
26	Principal Room	L	L	L	✓	✓	✓	✓
27	Administrative Office	L	L	M	✓	✓	✓	✓

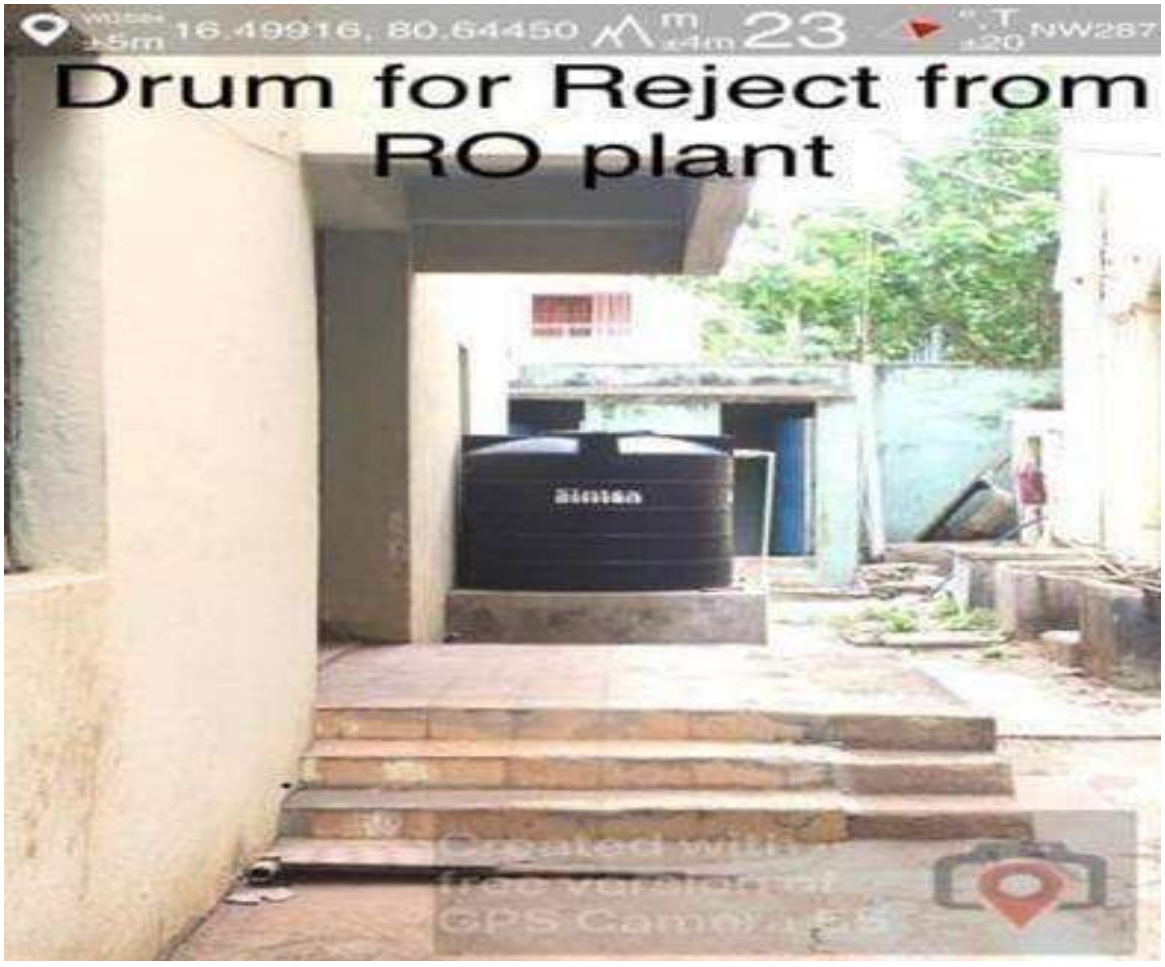
28	Hostel – I	M	M	M	✓	✓	✓	✓
29	Hostel – II	M	M	M	✓	✓	✓	✓
30	Canteen	L	M	M	✓	✓	✓	✓
31	Indoor Stadium	N	M	L	✓	✓	✓	✓
32	Around the lawn	L	M	M	✓	✓	✓	✓
33	Corridors and along the internal path ways	L	M	L	✓	✓	✓	✓

H –High M–Medium L –Low

WASTE MANAGEMENT

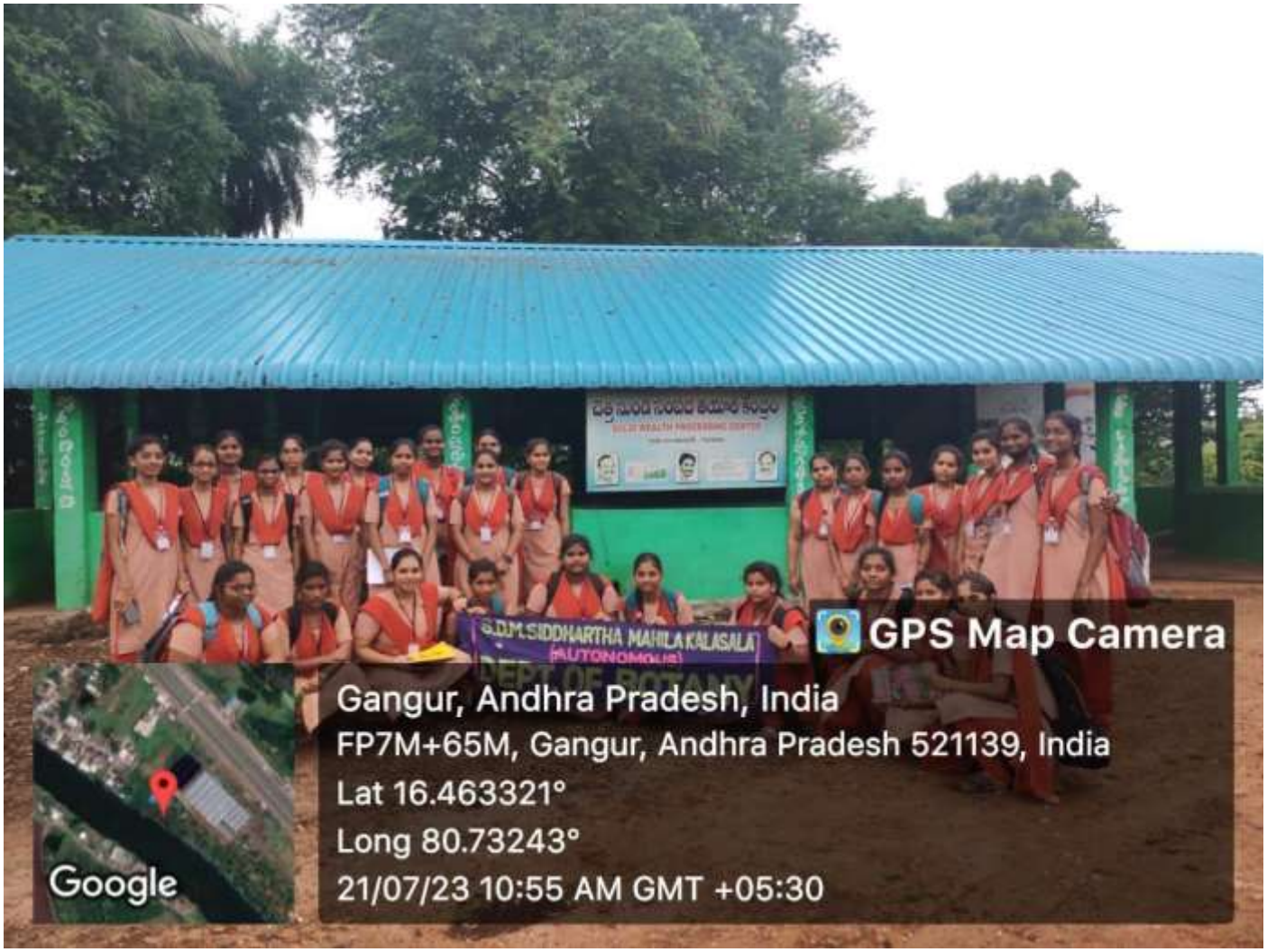
Our college is committed towards sustainability and also has a dedicated recycling programme, as well as opportunities for composting. Institution is successful in shifting from a linear model of 'we make, we consume and we dispose' to a circular model of reduce reuse and recycle.

Examples of practice are: Sit outs are designed aesthetically by using disposable plastic bottles. Vermicomposting, pit, heap and NADEP style composting garbage enzyme are designed by using biodegradable (vegetable & fruit) waste, collection of neem & pongam seeds making seed cake on the campus are few methods of waste management adopted.


±5m 16.49916, 80.64450 ±4m 23 ±20 NW287
Drum for Reject from RO plant
sintex


Two Bins for Seggregation
of Waste


ERMI COMPOST
Dept. of ZOOLOGY



Initiating Garbage Enzyme on the occasion of World Soil Day

Reimbursements for going green

RECYCLING-

We have an appreciation letter from ITC for converting waste paper into recycled white paper

E-WASTE MANAGEMENT:

An exhibition and competition is organised for reuse of e-waste.

https://www.youtube.com/watch?v=L-fgfh8lAGI

Type of Waste	Quantity of Waste per day(kgs)
Biodegradable waste	25
Non-bio degradable waste	3
Hazardous waste	1
Sanitary Napkins	40
e-waste	0.4

Using Reusable steel bottles for drinking water instead of plastic bottles. Use of leaf-plates and steel tumblers instead of disposable plates and glasses.

GREEN PRACTICES ON THE CAMPUS

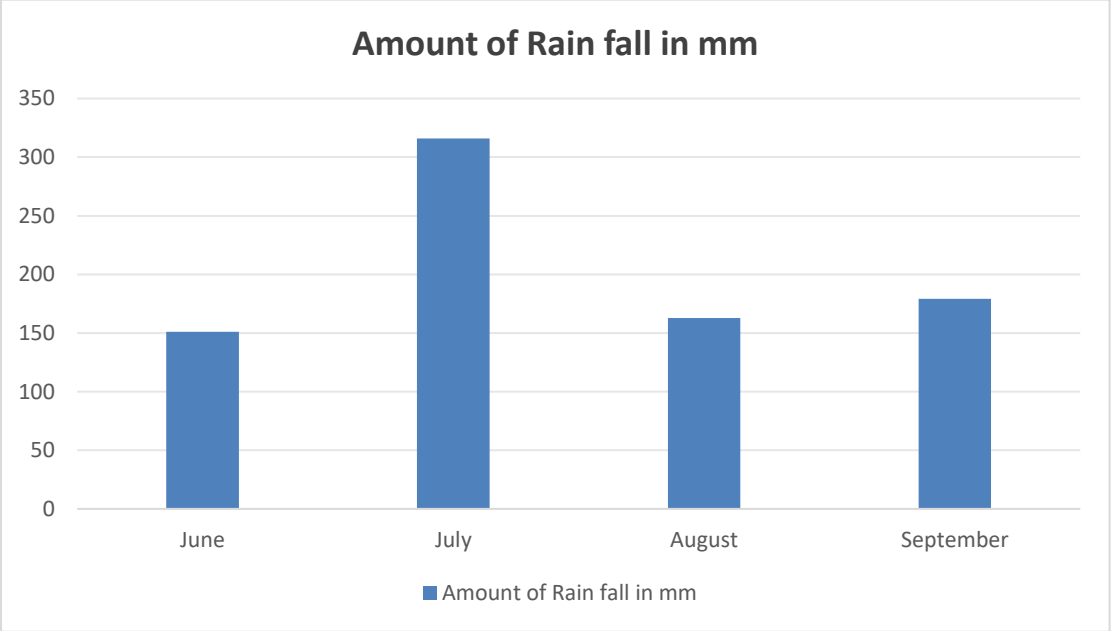
Eco friendly crafts

Herbal bath powder

WATER MANAGEMENT

CAPACITY OF THE WATER TANKS ON THE CAMPUS:

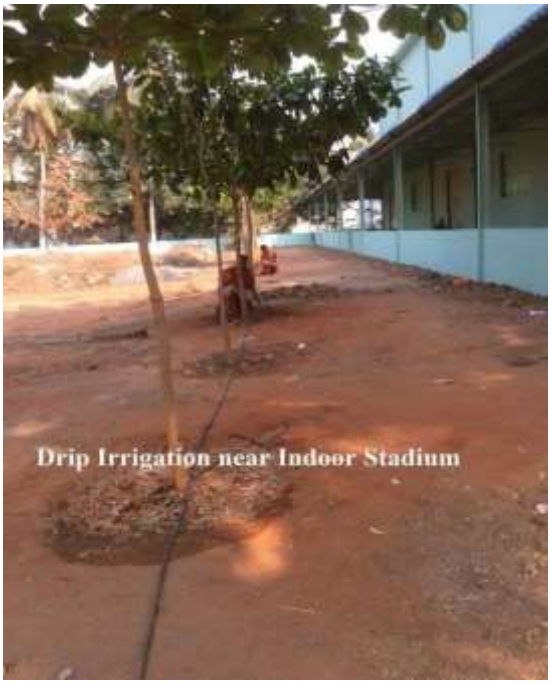
S.No	Blocks	Tank-1(Lt.)	Tank-2(Lt.)	Total Capacity(Lt.)	Usage per Day(Lt.)	Capacity per Week(KLD)
1	West	15915	-	15915	25247	194.329
2	South	28320	-	28320	47900	353.732
3	North	15860	-	15860	27500	198.736
4	Hostel 1	44730	16990	63720	121068	847.476
5	Hostel 2	27300	2000	29300	47740	364.18
6	Quarters	14160	-	14160	12744	89.208

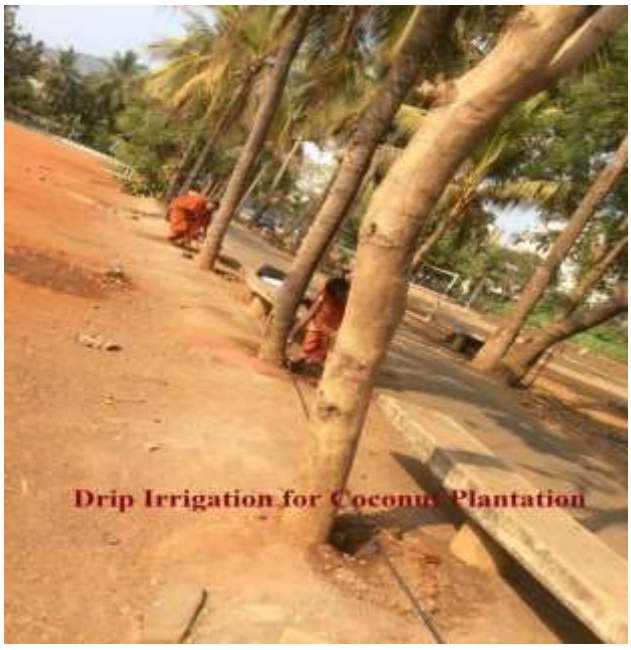


RWH STRUCTURES AND PERCENTAGE OF RAIN WATER HARVESTED (2022– 2023)

Rain Water Harvesting Structures	Number		% of Water Conserved	Quantity of Rain Water Conserved from January 2023 to December 2023 (in Cm.)
	Active	Inactive		
Percolation Pits	14	3	60	32.302 x 14 = 452.228
Rain Garden	1	0	80	45.273 x 1 = 45.273
Well	1	0	80	45.273 x 1 = 45.273


RAIN
GPS Map Camera
Vijayawada, Andhra Pradesh, India
Electric City Colony, Brindavan Colony, Sriram Nagar, Vijayawada, Andhra Pradesh 520010, India
Lat 16.498471°
Long 80.644287°
03/10/23 04:56 PM GMT +05:30
Google


Drip Irrigation near Indoor Stadium


Drip Irrigation for Coconut Plantation


Sprinklers on the Roof Top

RAIN GARDEN:

Constructed rain garden that is very good option that helps to lower the impact of impervious surfaces and polluted runoff because it is inexpensive, sustainable, environmentally sound and aesthetically pleasing. It helps in capturing, holding and slowly releasing rain water in to the soil.

Analysis of Drinking Water

Materials analysed:

Kitchen utensils
Drinking water

Tests conducted:

Standard plate count on nutrient agar media,
Most Probable number (MPN) for analysis of water.

Results:

Standard plate count:

2023-24	2022-23	2021-22	2020-21	2019-20
102 $x10^3$ CFU'S	105 $x10^3$ CFU'S	98$x10^3$ CFU'S	90$x10^3$ CFU'S	80$x10^3$ CFU'S

BIOLOGICAL OXYGEN DEMAND(BOD)

Test Method: Wrinkler's Method
Sample: Drinking Water

Placing sample in BOD incubator

Year	BOD Value Mg/Ml	Polluted/not-polluted
2019-20	3.2	not-polluted
2020-21	4.1	not-polluted
2021-22	4.6	not-polluted
2022-23	4.7	not-polluted
2023-24	3.6	not-polluted

Reference: Normal Range (3-5ppm) –Not Polluted

WATER FOOT PRINT: Staff and Students involved in calculation of water foot print. It is a tool that enhances disseminating hydro wisdom among youngsters. Use of the footprint calculator to assess one's own water footprint is practised. Sustainable use of fresh water is a critical foundation for healthy lives and a healthy planet. We believe the Water Footprint has something special to bring as we all work together to achieve fair and smart water use. To use the water footprint concept to promote the transition toward sustainable, fair and efficient use of fresh water resources. Awareness Raising, Knowledge and data dissemination is the objective of the foot print calculation. This calculator helps to estimate total water use and helps to know how much water goes into our food, gadgets, or the electricity that powers them.

ENVIRONMENT AUDIT

NOISE LEVELS

Besides air, land and water pollution, noise pollution is also creating problems to people. To create awareness on noise pollution levels of noise on the campus are measured by using Sound Meter App. Noise levels in DECIBELS(dB) during different times on the campus

Time	9.30 am	12.30 pm	4.30pm	5.30 pm
Main gate	67.2	65.4	66.4	75
Back gate	60	56.4	58.3	42.5
North side Class room	62	56.6	49.5	38
South side Class room	63.4	67	56.3	43.2
Computer lab	58.1	64.3(SS)	54.2(SS)	53(SS)
Chemistry lab	51.8	67.2	54.7	44.5
Botany lab	50.5	59.1	54.3	51.6
Physics Lab	49.9	58.1	50.4	37.3
Library	47	48..6	53.2	33.1

REPORT : Noise levels on the campus are found to be in safe exposure limits. Noise levels are attenuated by trees and shrubs on the campus.

NOISE LEVELS IN VARIOUS LOCATIONS AT DIFFERENT TIMINGS ON THE CAMPUS

5-3-2024

5-3-2024


Sound Meter
INFO
RESET
40 dB
0
20
40
60
80
100
120
dB
MIN
28 dB
AVG
50 dB
MAX
77 dB
100 dB
80 dB
60 dB
40 dB
20 dB
-30 s
-20 s
-10 s


Sound Meter
INFO
RESET
38 dB
0
20
40
60
80
100
120
dB
MIN
28 dB
AVG
50 dB
MAX
81 dB
100 dB
80 dB
60 dB
40 dB
20 dB
-50 s
-40 s
-30 s
-20 s
-10 s

AIR QUALITY INDEX VALUES COLOUR CODES & IMPACT ON HEALTH

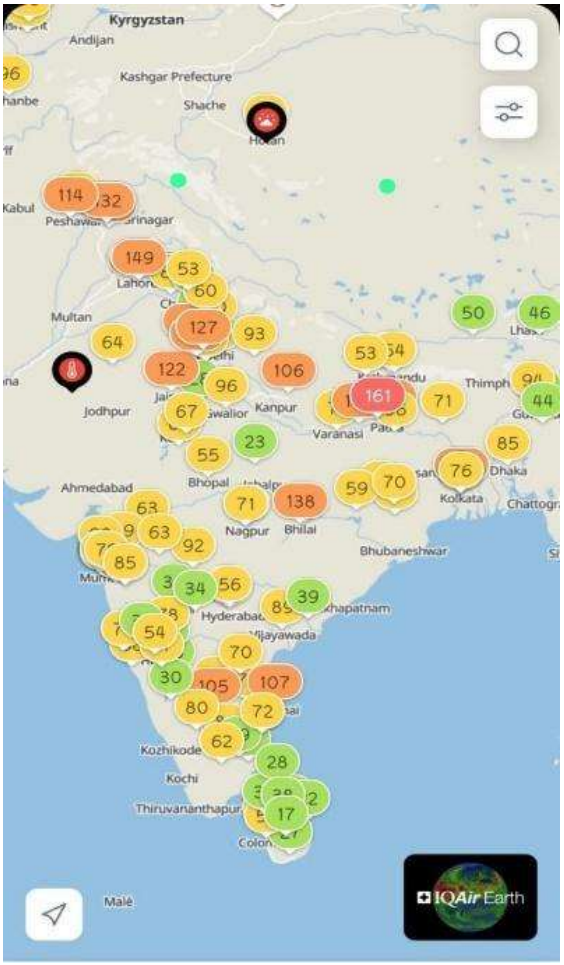
AQI data is collected during different times of the day to know the pollutant levels by using an app AIR MATTERS. AQI is used to communicate to the public how polluted the air is. AQI is represented by different color bands with health advice for each.

AIR QUALITY INDEX OF VIJAYAWADA

AQI	Remark	Code	Possible Health Impacts
0-50	Good		Minimal impact
51-100	Satisfactory		Minor breathing discomfort to sensitive people
101-200	Moderate		Breathing discomfort to the people with lungs, asthma and heart diseases
201-300	Poor		Breathing discomfort to most people on prolonged exposure
301-400	Very Poor		Respiratory illness on prolonged exposure
401-500	Severe		Affects healthy people and seriously impacts those with existing diseases

05-11-2023

05-11-2023



Air quality index in Vijayawada, Bombay and in other parts of Maharashtra, Delhi and in surrounding northern part of India

Collection and Measuring of Rainfall

Harvest from nutrition garden

Mushroom on the campus

Found on the surface of wet soil

GREEN HOUSE