

# **SKP GOVERNMENT DEGREE COLLEGE :: GUNTAKAL**

## **THE INSTITUTION HAS DISABLED-FRIENDLY BARRIER FREE ENVIRONMENT**

The main objectives of the "Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1996 enacted by the Government of India on January 1, 1996 are to create barrier free environment for persons with disabilities and to make special provisions for the Integration of persons with disabilities into the social mainstream.

Chapter VII of the Act, Sections 44 to 46 deal with non-discrimination in transport on the roads and in the built environment. It enjoins upon the governments and local authorities to ensure within their economic capacity provision for installation of auditory signals at red lights in the public roads for the benefit of persons with visual handicaps, kerb and slopes to be made in pavements for the easy access of wheel chair users, devising appropriate symbols of disability and warning signals at appropriate places.

In regard to non-discrimination in the built environment, provisions have been made in this Act for ramps in public buildings, adaptation of toilets for wheel chair users, Braille symbols and auditory signals in elevators.

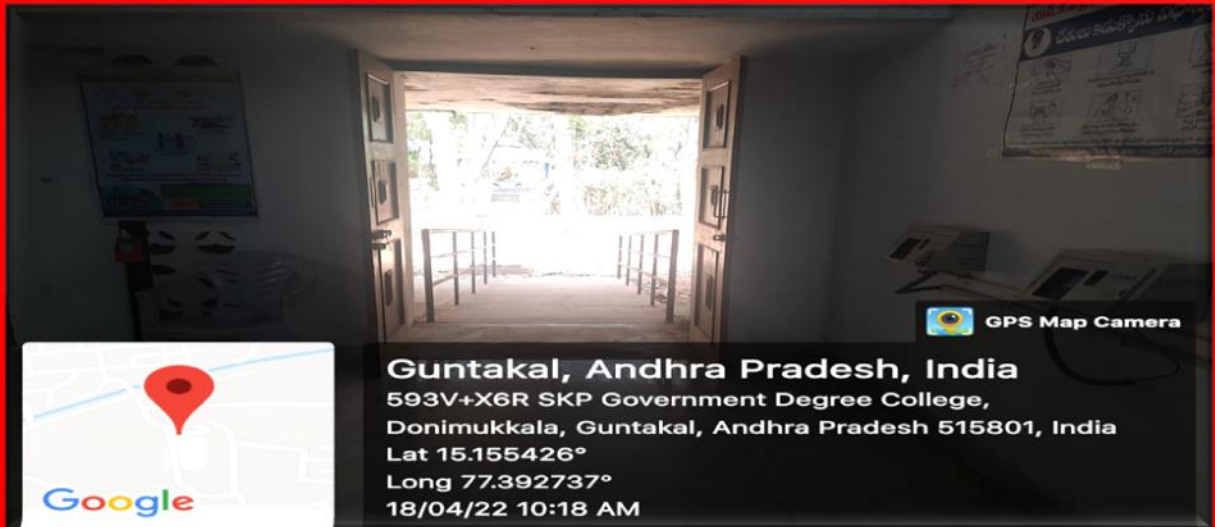
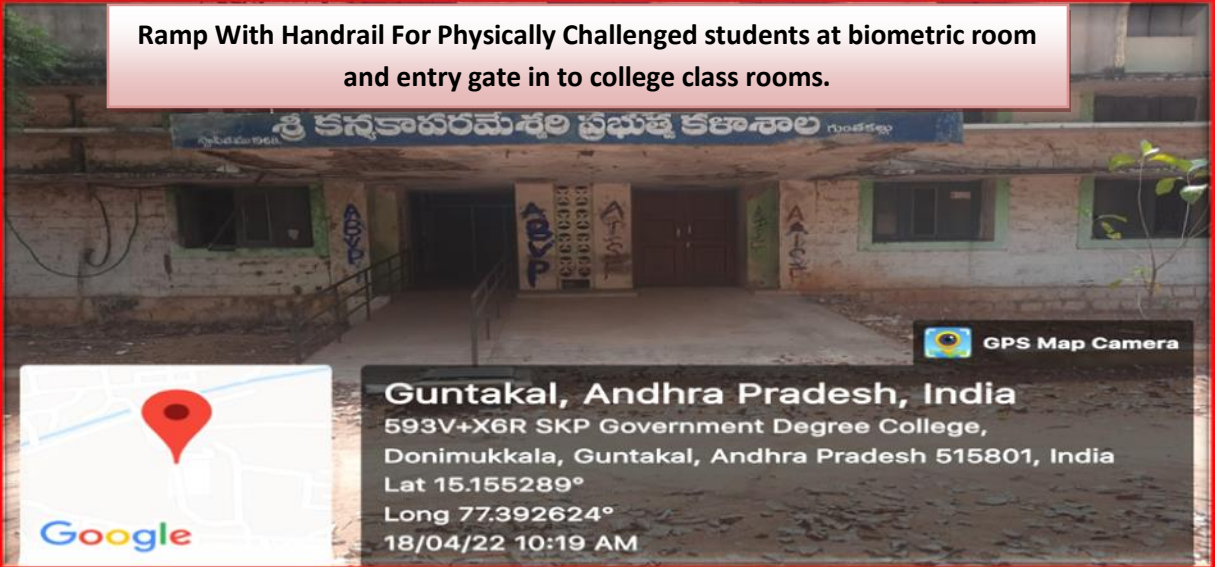
In order to create a barrier free environment in consonance with the provisions of the Act, the Government of India (Ministry of Urban Affairs & Employment) is currently engaged in the process of amending/modifying the existing building bye-laws which would be applicable to all buildings and facilities used by the public.

The institution has Disabled – Friendly Barrier free environment. The institution has arranged Ramps, Wheel Chairs and installed Bio-Metric Machine at lower level for the convenience of physically handicapped staff and students also.

  
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Ramp With Handrail For Physically Challenged students at biometric room and entry gate in to college class rooms.







**Emergency Wheel chair**



**Bio-Metric Machine**



### 7.1.2 - GREEN CAMPUS INITIATIVES INCLUDE:

SKP GOVT. COLLEGE GUNTAKAL-515801



GREEN CAMPUS INITIATIVES



# SKP GOVT. COLLEGE GUNTAKAL-515801

## PREAMBLE

A Green Campus is a place where environmental friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind.

Greening the campus is all about sweeping away wasteful inefficiencies and using conventional sources of energies for its daily power needs, correct disposal handling, purchase of environment friendly supplies and effective recycling program. Institute has to work out the time bound strategies to implement green campus initiatives. These strategies need to be incorporated into the institutional planning and budgeting processes with the aim of developing a clean and green campus.

### Major Green campus Initiatives in SKP GC campus:

- Rainwater Harvesting
- Institute community Garden
- Use of LED
- Restricted entry of vehicles
- Restricted Parking
- Pedestrian friendly Road
- Partial Paperless office
- Plastic free campus
- Plantation



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## CHAPTER-2: INTRODUCTION TO THE CRITERION

A Green Campus is a place where environmental-friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of the mankind. In SKP GC, we practice and maintain the following criteria and policies to make it a pollution free, energy saving green campus.

### 2.1 GREEN CAMPUS POLICY

#### 1. Restricted entry of vehicles

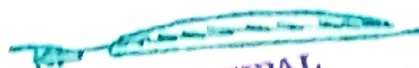
- The college encourages the employees and students to frequently use public transport, bicycles, etc. to limit the emissions.

#### 2. Ban on use of Plastic

- The college continuously committed to work towards plastic-free campus.
- In the SKP GC campus there is complete ban on single-use plastics in classroom, labs canteens in the institution's premises and hostels.

#### 3. Landscaping with trees and plants

- As per the green practices in the campus SKP GC is moving in the direction of a Green Institution by planting more trees within and outside the campus.
- Medicinal plants and more fruit plants and trees have been planted to clean the atmosphere

  
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## 2.2 BENEFITS OF THE GREEN-CAMPUS

Benefits to the Environment	Benefits to Institute
<ul style="list-style-type: none"> <li>• Environmental impacts of the Campus are quantified so</li> <li>• Improves waste management</li> <li>• Decreases resource use</li> <li>• Improves management of environmental aspects</li> </ul>	<ul style="list-style-type: none"> <li>• Forum for university management, academic Staff and students to meet</li> <li>• Creates a more balanced campus community</li> <li>• Empowers students and staff. Encourages innovation and change Prevents and reduces environmental impacts</li> <li>• Reduces associated costs good publicity</li> </ul>
Benefits to Students and Learning	Benefits to Local and Wider Community
<ul style="list-style-type: none"> <li>• Improves learning outcomes Research skills (developing an action plan, Transferable skills to workplace: communication, teamwork, committee servicing)</li> <li>• Introduction to new topics Curriculum links: using data currently generated, investigative research, problem based research</li> <li>• Institute becomes a better neighbour</li> </ul>	<ul style="list-style-type: none"> <li>• Sets an example in the locality</li> <li>• Involves local groups and representatives               <ul style="list-style-type: none"> <li>➤ Facilitation</li> <li>➤ Green Home</li> <li>➤ Green Schools</li> <li>➤ Greening Communities</li> </ul> </li> <li>• Reduces waste generated, travel impacts etc. in the community</li> </ul>

  
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## 2.3 Lush Green Institute Garden

Green Landscaping with Trees and Plants—the campus is beautifully landscaped and has received appreciation. Plantation of around 1000 plants has been done including a number of exotic plants. An active ECO club ensures the organization of tree plantation on World Environment Day, various awareness programs were & events conducted every year. A rich variety of flora and fauna predominates the natural landscape of the campus. Exotic fruit trees are also planted in the campus.



## **2.4 RAIN WATER HARVESTING**

Water scarcity is serious problem throughout the world for both urban & rural community. Urbanization, industrial development & increase in agricultural field & production has resulted in over exploitation of groundwater & surface water resources and resultant deterioration in water quality. The conventional water sources namely well, river and reservoirs, etc. are inadequate to fulfill water demand due to unbalanced rainfall. While the rain water harvesting system investigate a new water source.

In SKP GC campus a rain water harvesting system is made. The runoff water from the nearby fields channelized into a recharge well located near the south-West corner of the campus. The runoff from this unpaved area is intercepted at a collection trench. From here the run off eventually rains into an abandoned open well, which facilitates ground water recharge.





## **2.5 RESTRICTED ENTRY OF VEHICLES AND PARKING**

In SKP GC campus, entry of private vehicles is restricted to keep the campus clean and green

## **USE OF SOLAR ENERGY**

The College uses solar energy to meet its power needs



## **USE OF LED**

As a step towards energy saving, total lightings of class rooms, labs and hostel are replaced with LED panels. The outcomes of LED lights are given below:-

- Long life. The components of an LED and the way that they generate light significantly extend the life span of the bulbs....
- Energy efficiency....
- High brightness and intensity....
- Exceptional colour range....
- Low radiated heat....
- Reliability....
- Instantaneous illumination....
- Directional lighting.

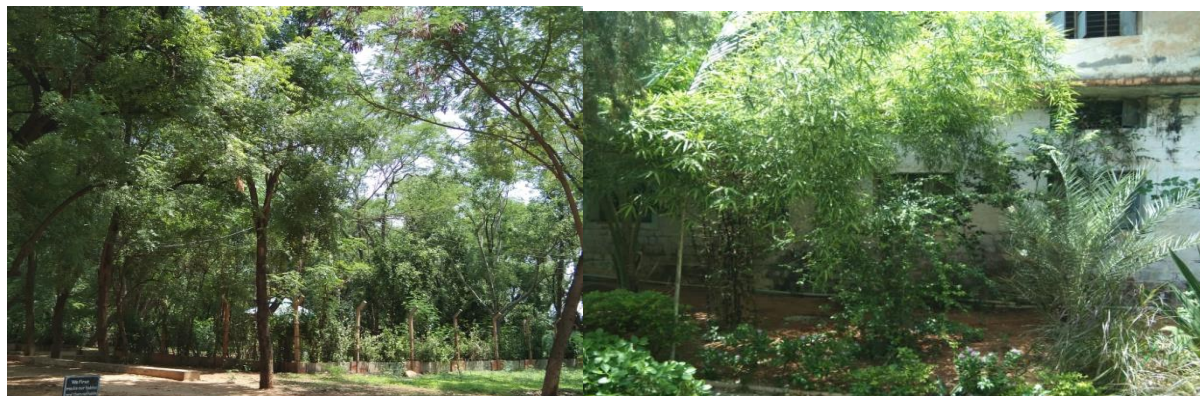


## 2.6 PARTIAL PAPER LESS OFFICE

All offices works are partially done on paperless concept. Information through mail, Google groups, Whats App Groups, Google classrooms, etc. as much as possible. High speed Wi-Fi facility is also provided for this. Other practices like, re-use of one-sided paper for notes, sketches, rough work, rough printouts, etc.; cashless transactions, and utilizing multiuser printer at central administrative locations of the Institute office also aims at reducing the use of papers.

## 2.7 PLANTATION OF SHADY TREES AND MEDICINAL PLANTS

The campus is beautifully landscaped. Plantation of around 1000 plants has been done including a number of medicinal plants. An active Botanical club ensures the organization of tree plantation on World Environment Day, College level Green awareness programs & events every year. A rich variety of flora and fauna predominates the natural landscape of the campus. Medicinal trees and Plants are also planted in the campus.











## SKP GOVERNMENT COLLEGE ::GUNTAKAL

### INTRODUCTION TO SOLAR ENERGY

The sun drives 99.98% of the world's energy supply, including thermal, photovoltaic, photochemical, photo biological and hybrid solar, hydro, wind, wave, and biomass energy conversion. It originally grew the biomass that we now access as fossil fuels. Other sources include tidal, geothermal and nuclear. The sun's energy comes from fusion reactions in its core. These reactions have been "burning" for 4.5 billion years and are expected to continue for another 6.5 billion years. The total power radiated out into space by the sun is about  $3.86 \times 10^{26}$  W. Since the sun is approximately  $1.5 \times 10^{11}$  m from the earth, and because the earth is about  $6.3 \times 10^6$  m in radius, it intercepts only 0.000000045% of this power. This still amounts to a massive  $1.75 \times 10^{17}$  W. Most of this radiation is in the visible and infrared part of the electromagnetic spectrum, with less than 1% emitted in the radio, UV and X-ray spectral bands. The sun's electromagnetic radiation approximates that of a black body with a temperature around 5778 K, with its peak in the yellow range of the visible spectrum. This is sometimes "rounded up" to 6000 K for simplicity.

The solar radiation that reaches the earth is reduced in intensity and the spectrum is changed by absorption and scattering as it passes through the atmosphere, and by reflection from the surface.<sup>6</sup> Scattering means that radiation reaches a receiver not only directly from the visible solar disk but also from the rest of the sky. Standard spectra and models have been derived for use in simulations and estimations. For example, tables presented in ASTM Standard G1738 are commonly used to represent terrestrial solar radiation in two forms:

1. AM1.5D: Direct Normal Incidence radiation is that received on earth directly from the solar disk, as would be received by a concentrating collector. The total integrated irradiances for the standard direct spectrum is  $900.1 \text{ Wm}^{-2}$ ;
2. AM1.5G: Hemispherical on  $37^\circ$  Tilted Surface radiation adds the direct radiation and the scattered diffuse radiation to yield the hemispherical or global radiation, impinging on a sun-facing  $37^\circ$ -tilted surface, useful for modeling flat plate (non-concentrating) collectors. The total integrated irradiance for the standard hemispherical tilted spectrum is  $1000.4 \text{ Wm}^{-2}$ .

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**Installation in the College:-** Solar Energy system started in this college in 2017 and the entire college is equipped with this solar system. It is helpful in saving power bills and also very economical. The supply is given to all the Principal Chamber, Departments, Staff Rooms, Auditorium, college office and Class Rooms.



**Voucher for the Solar Energy System:-**

2021

WindStream Energy Technologies India Pvt Ltd  
Plot No 289, Prakruthi Nivas 2nd Floor, Jubilee Hills, Road No. 78,  
Hyderabad – 500 096, Telangana State

PAN NO : AABCW4607K

GST NO: 36AABCW4607K1Z6

**RECEIPT**

No: 005

Date : 20-5-2021


Received with thanks from : SKP Government Degree college, Guntakal

The sum of Rupees: Sixteen Lakhs Eighty Five Thousand Only

By Cheques/ DD No /RTGS/ NEFT through On Line Transfer

Date 15-12-2020 Towards 100% of the project cost for the Installation and Commissioning

Rs- 16,85,000/-



For Windstream Energy Technologies India Pvt Ltd

**WindStream Energy Technologies India Pvt.Ltd.**  
Office : 1st Floor, SSH Pride, Plot 273, Road 78, Jubilee Hills, Hyderabad - 500 096.  
Factory : 24/D, Hardware Park, Kancha Imarat, Maheswaram Mandal, Telangana - 500 005.  
Ph. 040-23548779 www.windstream-inc.com

# **SKP GOVERNMENT DEGREE COLLEGE :: GUNTAKAL**

## **WATER CONSERVATION FACILITIES AVAILABLE IN THE INSTITUTION**

Conserving water reduces wear and tear on major resources such as water and wastewater treatment plants and the distribution systems that deliver water to the public. Using less water can also enable us to become more flexible during times when there is a water shortage.

Conservation of water refers to the preservation, control, development and management of water and its resources. It is the strategies and activities made to manage freshwater and protect the water environment.

The institution has water harvesting pits before rains and after rains (filled with water). Its latitude is 15.154324 and longitude is 77.393034. Pit latitude is 15.154324 and longitude is 77.393007. the measurements of another pit is 15.154324 and longitude is 77.393034. These harvesting pits in the college help to increase the ground water level abundantly. The water level in the ground increases and it helps for the cultivation as well as drinking water purpose. The college has taken all measures to increase the conservation facilities in the college.

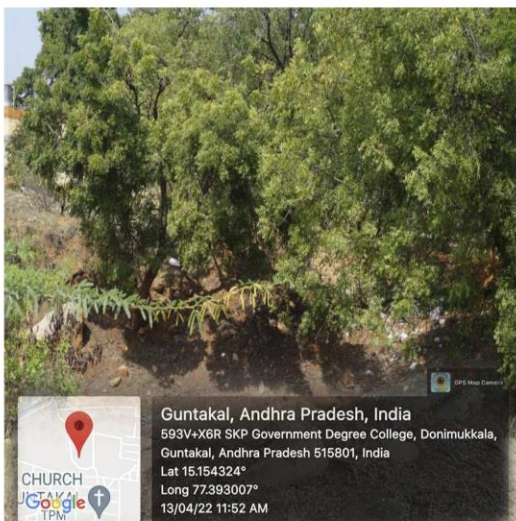
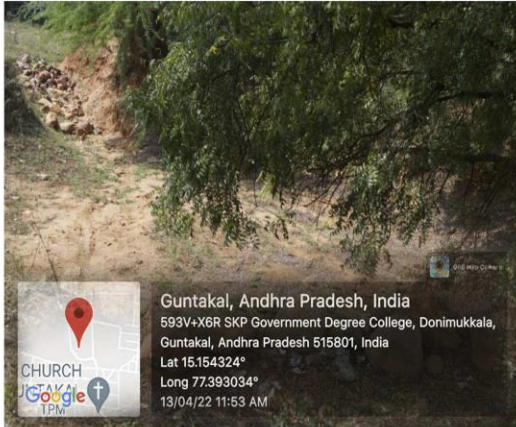
A canal was dug in the college backside which helps for the rain water to flow and store in the college pits. This water is used to plant several small trees in the campus and also helps for the college staff and also outsiders near the college.



  
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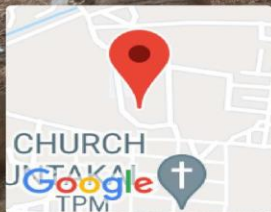


**GDC , GUNTAKAL , ANANTHAPURAM DIST : WATER HARVESTING PITS BEFORE RAINS AND AFTER RAINS ( FILLED WITH WATER )**





**GDC , GUNTAKAL , ANANTHAPURAM DIST : CONSTRUCTION OF TANKS AND BUNDS**



**Guntakal, Andhra Pradesh, India**  
593V+X6R SKP Government Degree College, Donimukkala,  
Guntakal, Andhra Pradesh 515801, India  
Lat 15.154324°  
Long 77.393034°  
13/04/22 11:53 AM





# SKP GOVERNMENT DEGREE COLLEGE :: GUNTAKAL

## Degradable and Non-Degradable Waste

All the degradable and non-Degradable waste collected in the college campus and is placed at one particular point. Daily the workers of the municipal department come to the college campus along with their van and collects the entire waste dumped in the college. These wastes include degradable and non-Degradable which are dumped separately in green and red baskets. Green basket is filled with degradable waste and red basket is filled with non-Degradable waste.











GPS Map Camera

**Guntakal, Andhra Pradesh, India**

593V+X6R SKP Government Degree College, Donimukkala,

Guntakal, Andhra Pradesh 515801, India

Lat 15.155625°

Long 77.392807°

14/12/22 12:55 PM GMT +05:30