



2309 I-Cross Mahantesh Nagar, BELGAUM -16

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GREEN AUDIT

This is to certify that, our audit team visited KRJ Arts & SMS Commerce College **DHARWAD** Dist:Dharwad on 11th June 2022 and under took the **ENERGY AUDIT** of college campus.

The college is located in Corporation limits of HUBLI –DHARWAD. It is a semi organized Industrial city.

Most the significant plants in the campus are indentified (nomenclatured).

The list follows,

It is observed that there are few medicinal trees the college campus. (nomenclatured)

There are about ten oxygen oozing plants(Special variety) in the campus.(nomenclatured)

There are lot many ornamental plants in the campus (few nomenclatured)

Rare plants are less in number in the campus .(nomenclatured)

There are a few sacred plants (nomenclatured)

There are ample number of ornamental trees in the campus.

"My college my plant" a innovative programto nurish the plants has been popularized. Staff and students have taken some plants own nourishment at their own cost.

Solar harvesting Unit (roof top) is present. It is added advantage in energy saving, It is mainly utilized for the library.

The campus is lush green and most suitable academic developments.

Technical staff

Place :Dharwad Date :11th June 2022 BELGALM S60 016 Convener Energy Audit Team

Principal
S.H.A.S. Samiti's

Smt. K. S. Jigalur Arts and or. (Smt) S. M. Sheahgiri Commerc





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ENVIRONMENT AUDIT REPORT

This is to certify that, our audit team has visited KRJ Arts& SMS Commerce College, DHARWAD on 11th June 2022and under took the environment audit work of college campus.

The college is located in HUBLI-DHARWAD city Corporation limits. Dharwad is a semi organized Industrial city. It seems to be free from industrial harmful gas effluents.

AIRVEDACamera Techniques Beta Attenuation Method (BAM) has been employed to check the air quality parameters in terms of Air Quality Index (AQI) and audible intensity measured by standard sensors of sound, in decibel Bell (dB).

The details of Geographical, Environmental and Weatherparameters Dharwad are as follows.

- 1. Altitude from sea level is 750mt. (2460 ft)
- 2. Latitude is 15.460252 N.
- 3. Longitude is 75.010284 E.
- 4. Weather Chart of Dharwad (Koppen Gieger Weather Chart.) : Aw-BShsandwichzone
- 5. Average Temperature: 25.50 Celsius.
- 6. Average rainfall:310 mm.
- 7. Average Humidity: 40% to 50% as per AIR VEDA techniques
- 8. Dharwad : semi industrial area.
- 9. RPM: 5.07 to 15 μgm⁻³ (605μgm⁻³ as perMoEF standards.)
- 10. SPM: 8.09 to 50 μgm⁻³ (100 μgm⁻³ as per MoEF standards)
 11. NOxlevel :1.15 to 5.00 μgm⁻³ (80 μgm⁻³ as per MoEF standards.)
- 12. SOxlevel :1 to 2.5 μgm⁻³ (50μgm⁻³ as per MoEF standards.)
- 13. Ozone (O₃) Level :22 to 34 μgm⁻³ (100μgm⁻³ as per MoEF standards.)
- 14. Carbon monoxide (CO) level:10. To 15 μgm⁻³ (25μgm⁻³ as per MoEF standards.)
- 15. The pollution levels are within the safe range (as MoEF standard)
- 16. Visibility clear up to 6 to 8 Km
- 17. AQI level : 38

(safe as MoEF per standards)

- 18. Water quality is tested
- 19. dB level is around 40 to 55 better range
- (as per the BIS audible standards).
- 20. The illumination level are all better
- (as per BIS mark 3646 part I.)
- 21. Measure EM radiation on the inspection day <42μT (safe)(as per the BIS standards).
- 22. Max Hottest day 02nd May 2022 12.26 PM
- 23. Max Humid day 12th Aug 2022,12.35 PM
- 24. Distance from Equator 17035.6 km
- 25. Distance from tropic Cancer 897.84 km

All Environmental related charts and their importance are submitted to the college.

Technical staff

Place : Dharwad

Date:11th June 2022

Convener Cul-

Environment Audit Team

Principal S.H.A.S. Samiti's

Smt. K. S. Jigalur Arts and Dr. (Smt) * M. Sheehgiri Commerce

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ENERGY AUDIT

This is to certify that, our audit team visited KRJ Arts & SMS Commerce College DHARWAD Dist: Dharwad on 11th June 2022and under took the ENERGY AUDIT of college campus.

The college is located in Corporation limits of HUBLI -DHARWAD. It is a semi organized Industrial city.

The energy audit is a retrospective survey and analysis of energy requirements. The energy conservation principles have been adopted with minimal use of energy judiciously i.e. <u>Whenever necessary</u> and where ever necessary.

All the energy requirements are collected from each and every class room, laboratory, office, staff common room, library, computer lab, gymnastic hall etc.

A separate energy consuming appliances log sheet is made ready for ease of energy management. An energy sensitization awareness program is developed among the staff and students.

Need of energy audit

To minimize the cost of energy consumption To minimize the operational costs To minimize the cost of maintenance

ENERGY AUDIT METHODOLOGY

The audit involves visiting physical position of load and to carry out the inventory of load. Due measurements of electrical load of requirement and adequate circuit is carried out. Energy bill received from **HESCOM** is audited and analyzed, various positions of energy. Present requirements are judged and finalized. Energy conservation and saving opportunities are identified, proper circuitry plans are implemented.



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HESCOM CONSUMER BILL for the last five years have been analyzed

It is found that there is incremental trend in use of electrical power. Clearly it because of continuous up grading the infra structure.

S.No	Year	Average Power Units consumed	Remarks
1	2017	766	Analysis is made graphically Incremental trend is clear indication of proper use of electric power for the development purpose only
2	2018	1049	
3	2019	1344	
4	2020	1325	
5	2021	1464	
	Avrg	1190	23.06% energy is utilized in the year 2021 (Excss)

This has been achieved by adopting advance technology in electric appliances The EXCEL graphical analysis is provided in separate sheets.

The energy sensitization programs are notified among the staff and students

Solar water heater present in hostel. It is one step ahead to words utilization of green energy. In turn 10 % turn saving of electricity bills is achieved

It is observed that roof top solar energy harvesting units are installed in library, which the best practice in energy utilization method. The same out of solar energy is utilized for lighting in the campus during night. Thus green energy is optimally utilized.

Technical staff

Place :Dharwad

Date:11th June 2022

Energy Audit Team

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