



**SRI JAGADGURU MURUGHARAJENDRA
COLLEGE OF ARTS, SCIENCE & COMMERCE
CHANDRAVALLI, CHITRADURGA-577502**



Affiliated to Davangere University, Davangere
Accredited with 'A' Grade Third cycle

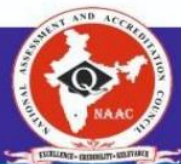
SELF STUDY REPORT (SSR) FOURTH CYCLE NAAC ACCREDITATION



CRITERIA - VII

7.1.3

**Quality audits on environment and
energy regularly undertaken by the Institution.**



**Submitted to
NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL, BENGALURU**

SJM
ARTS, SCIENCE AND COMMERCE COLLEGE, Chandravalli - CHITRADURG
Dist : CHITRADURG



GREEN AUDIT REPORT - 2023



GREEN AUDIT



**Global Eco Tech and Solutions, # 2309, I - cross Mahantesh nagar
Belgaum -16 Cell No : 99024 28248**



UKAI-GLHV-23-169178



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GREEN AUDIT

This is to certify that, *Our Audit Team* has visited SJM Arts & Commerce College, Chandavalli CHITRADURG Dist : Chitradurg 577 501, on 22nd Dec 2023 and undertook the “*Environment Audit*” of college campus.

The college is located in Chitradurg City Corporation limits. The population of Chitradurg is 16,59,456 as per 2011 census.(Now in 2023 projected population is 18,10,000.) Chitradurg is known since Ashoka period for Brahmagiri rock edicts) Chitradurg city is absolutely business centre.

The Chitradurg district is known for the **oldest dam in Karnataka** and **Vani Vilas Sagar Lake** . Chitradurg city is well known for flower market. This is mainly because of temperature adequate humidity,soil PH, and fertile land in some of the talukas of the district. It seems to be that, the city is free from industrial harmful- gas effluents.

It seems to be, the city is free from industrial harmful-gas effluents.

All measure are being taken to keep the campus very clean, dust free and least prone to pollutions. Heat radiation are arrested by providing manicure lawn in prime and needy locations. A number of oxygen oozing plants in pots, make the campus beautiful.


Most of the significant plants in the campus are indentified and almost all are nomenclatured.

S.No	Type of tree	Number	S.No	Type of tree	Number
1	Ornamental	Lot Many	2	Tree species	25
3	Medicinal	10	4	Rare	01
5	Oxygen oozing plants	06	6	Fruit bearing	03
7	Sacred plants	04	8	Creepers	04
9	Endangered	-	10	Total	80

“*My college My plant*” an innovative program to nourish the plants has been popularized. Staff and students have taken some plants to nourish at their own cost.

The campus is lush green and most suitable Academic developments.


 Technical staff


 Convener
 GREEN Audit Team

Place : Chitradurg

Date: 22nd Dec 2023



SJM
ARTS, SCIENCE AND COMMERCE COLLEGE CHANDRAVALLI, CHITRADURGA
Dist CHITRADURG

FLORA OF CAMPUS

S.No	Scientific name	Family	Vernacular name	No
1.	1. <i>Justicia adhatoda</i>	Acanthaceae	Malabar nut	01
2.	1. <i>Mangifera indica</i>	Anacardiaceae	Mango	01
3.	1. <i>Annona squamosa</i>	Annonaceae	Custurd apple	02
4.	1. <i>Cascabela thevetia</i>	Apocynaceae	Lucky bean	01
5.	2. <i>Nerium oleander</i>	Apocynaceae	Nerium	02
6.	1. <i>Archontophoenix alexandere</i>	Arecaceae	King palmtree	02
7.	2. <i>Cocos nucifera</i>	Arecaceae	Coconut	03
8.	1. <i>Tecoma stans</i>	Bignoniaceae	Yellow elder	01
9.	1. <i>Casuarina equisetifolia</i>	Casuarinaceae	Australian pine tree	02
10.	1. <i>Terminalia catappa</i>	Cambretaceae	Indian almond	04
11.	2. <i>Terminalia arjuna</i>	Cambretaceae	Arjun tree	05
12.	1. <i>Diplocyclos palmatus</i>	Cucurbitaceae	Striped cucumber	01
13.	1. <i>Cupressus lusitanica</i>	Cupressaceae	Mexican cypress	19
14.	1. <i>Cycas rajbergi</i>	Cycadaceae	Cycas	03
15.	1. <i>Albizia chinensis</i>	Fabaceae	Chocolate heart	17
16.	2. <i>Albizia julibrissin</i>	Fabaceae	Silk tree	38
17.	3. <i>Albizia lebeck</i>	Fabaceae	Women's tongue	01
18.	4. <i>Bouhinia farficata</i>	Fabaceae	Brazilian orchid	02
19.	5. <i>Ceratonia siliqua</i>	Fabaceae	Carab	02
20.	6. <i>Dalbergia sisso</i>	Fabaceae	Indian rosewood	03
21.	7. <i>Dichrostachys cinerea</i>	Fabaceae	Omubambaniabe	01
22.	8. <i>Entada obyssinica</i>	Fabaceae	Splinter been	01
23.	9. <i>Leucaena</i>	Fabaceae	Dumbay	05



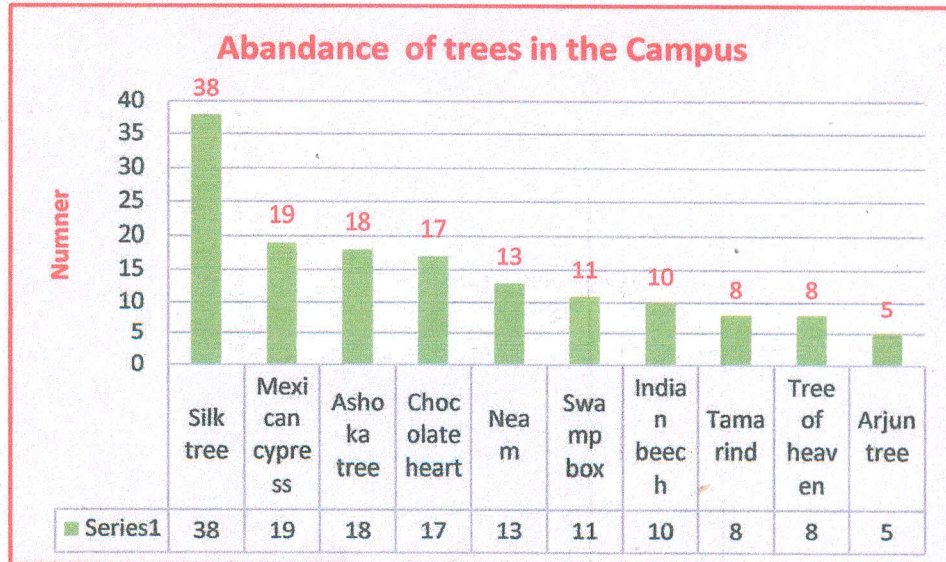
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	<i>leucocephala</i>			
24.	10. <i>Machaeium scleroxlon</i>	Fabaceae	Caviana	01
25.	11. <i>Millettia pinnata</i>	Fabaceae	Indian beech	10
26.	12. <i>Parkia timoriana</i>	Fabaceae	Tree bean	01
27.	13. <i>Prosopis glandulosa</i>	Fabaceae	Honey mesquite	02
28.	14. <i>Prosopis juliflora</i>	Fabaceae	Mesquite	06
29.	15. <i>Saraca asoca</i>	Fabaceae	Ashoka tree	18
30.	16. <i>Tamarindus indica</i>	Fabaceae	Tamarind	08
31.	1. <i>Castanopsis</i>	Fagaceae	Chinkapin	01
32.	2. <i>Castanea sativa</i>	Fagaceae	Sweet chestnut	01
33.	3. <i>Quercus phellos</i>	Fagaceae	Willow oak	01
34.	1. <i>Anthocleisla grandiflora</i>	Gentiannaceae	Forest fever tree	01
35.	1. <i>Tectona grandis</i>	Lamiaceae	Teak	02
36.	1. <i>Magnolia grandiflora</i>	Mangnoliaceae	Bull bay	02
37.	1. <i>Azadirachta indica</i>	Miliaceae	Neam	13
38.	1. <i>Ficus Belgium</i>	Moraceae	Weeping fig	01
39.	2. <i>Ficus benghalensis</i>	Moraceae	Banyan tree	03
40.	3. <i>Ficus benjamina</i>	Moraceae	Java fig	01
41.	4. <i>Ficus carica</i>	Moraceae	Fig plant	01
42.	5. <i>Ficus citrifolia</i>	Moraceae	Wild banyan tree	01
43.	6. <i>Ficus religiosa</i>	Moraceae	Sacred fig	02
44.	1. <i>Moringa oleifera</i>	Moringaceae	Drumstick tree	01
45.	1. <i>Eucalyptus globulus</i>	Myrtaceae	Gum tree	06
46.	2. <i>Lophostemon confertus</i>	Myrtaceae	Vinegar tree	01
47.	3. <i>Lophostemon suvadens</i>	Myrtaceae	Swamp box	11
48.	4. <i>Psidium guajava</i>	Myrtaceae	Common gua	03
49.	5. <i>Syzygium cumini</i>	Myrtaceae	Malabar plum	04
50.	1. <i>Nysa sylvatica</i>	Nyassaceae	Black tupelo	01
51.	1. <i>Pasiflora incarnata</i>	Passifloraceae	Purple passion flower	01
52.	1. <i>Phyllanthus emblica</i>	Phyllanthaceae	The Indian gooseberry	01



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53.	1. <i>Phytolacca dioica</i>	Phytolocaceae	Pokeberry tree	01
54.	1. <i>Dendrocalamus giganteus</i>	Poaceae	Giant bamboo	03
55.	1. <i>Grevillea robusta</i>	Proteaceae	Silky oak	01
56.	2. <i>Leucadendron argenteum</i>	Proteaceae	Silver tree	01
57.	1. <i>Jasmine plant</i>	Rubeaceae	Simply jasmine	01
58.	2. <i>Chinese ixora</i>		Jungle flame	01
59.	1. <i>Prunus amygdalus</i>	Rosaceae	Almond	07
60.	1. <i>Aegle marmelos</i>	Rutaceae	Bilwa/bael	01
61.	2. <i>Citrus limon</i>	Rutaceae	Lemon	01
62.	3. <i>Murraya koenigii</i>	Rutaceae	Curry leaf tree	02
63.	1. <i>Simarouba glauca</i>	Simaroubaceae	Paradise tree	02
64.	2. <i>Ailanthus attissima</i>	Simaroubaceae	Tree of heaven	08
65.	1. <i>Duranta repens</i>	Verbenaceae	Duranta	infinet
66.	1. <i>Ribesuva crispa</i>	Grossulariaceae	European goosberry	01



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ENERGY AUDIT REPORT

This is to certify that, *Our Audit Team* has visited SJM Arts & Commerce College, Chandavalli CHITRADURG Dist : Chitradurg 577 501, on 22nd Dec 2023 and undertook the “*Environment Audit*” of college campus.

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All Energy related analytical charts **and their** importance are submitted to the Institute.
The management and staff are much more aware of judicious use of precious energy
The details of energy Audit follow with graphical analysis.

The Institute is fit in all respects for academic developments.

Technical staff

Convener

Energy Audit Team

Date :22nd Dec 2023

Place :Chitradurg



ENERGY AUDIT METHODOLOGY

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 without affecting the academic developments .i.e

*“Whenever necessary
and
Where ever necessary use electric power ”.*

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

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

Need of Energy Audit

- i. minimize the cost of energy consumption
- ii. To minimize the operational costs
- iii. To minimize the cost of maintenance

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 are carried out . Energy bill received from **HESCOM** is audited and analyzed , in various location of positions of energy demands. Present requirements are judged and finalized. Energy conservation and saving opportunities are identified, proper circuitry plans are implemented.

HESCOM CONSUMER BILL for the last six years have been analyzed

Analysis follows on separate sheet. The energy sensitization programs are notified among the staff and it is found that there is increase trend in use of electrical power(very judiciously) without affecting the routine work of college activities.



Cal

Reasons

Strength of the college is increased

Infrastructure development is a mandatory

Graphical analysis and total units of power consumed monthly /yearly have been worked out .

The analytical data is as follows

S.No	Year	Average Power units consumed	Remarks
1	2018	260	A graphical analysis shows that there is initial decremental trend in the beginning.
2	2019	329	
3	2020	170	
4	2021	217	It is found that there is "increasing trend in the two last year because of infra structure developments
5	2022	387	
	Average	273	
		*Achievement	+ 17.62 % as compared to last max reading
*Note : However conservation of electric energy is followed (Adopting modern electric appliances)			

It is observed that roof top solar energy harvesting units are installed in campus. Because of this facility the college is getting electric bills as per HESCOM norms.

** Decline trend indicate practicing "use of electric power is done judiciously". Increase consumption of energy is due to infra structure development This is reflected from the **EXCEL graphical analysis sheets.**





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SJM

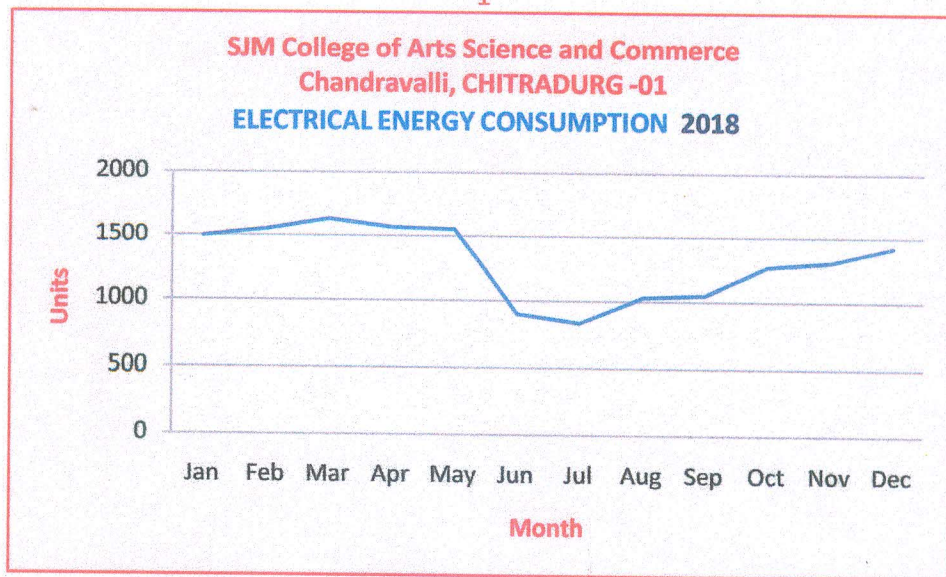
ARTS, SCIENCE & COMMERCE COLLEGE CHANDAVALLI, CHITRADURG - 01
Dist : CHITRADURG

YEAR WISE CONSUMPTION OF ELECTRIC ENERGY

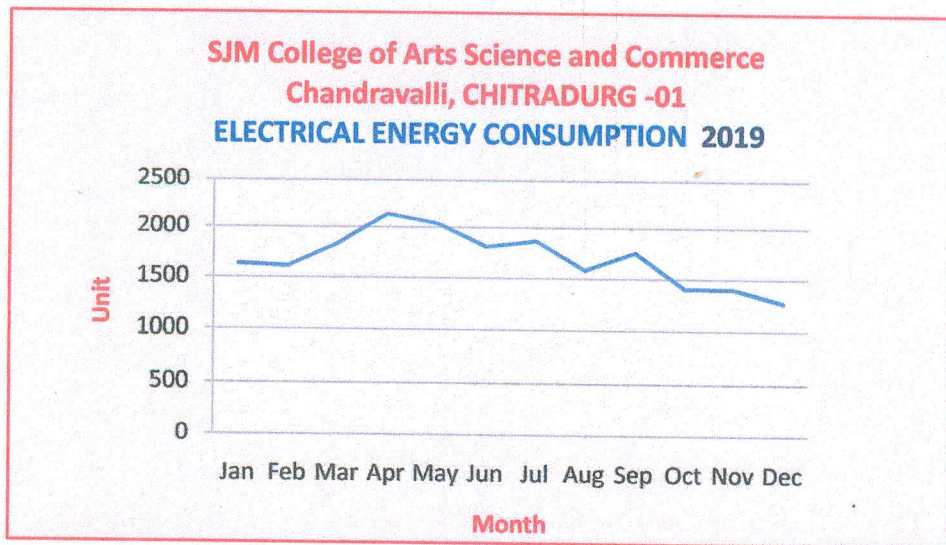
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Analysis Method : Integrated

1



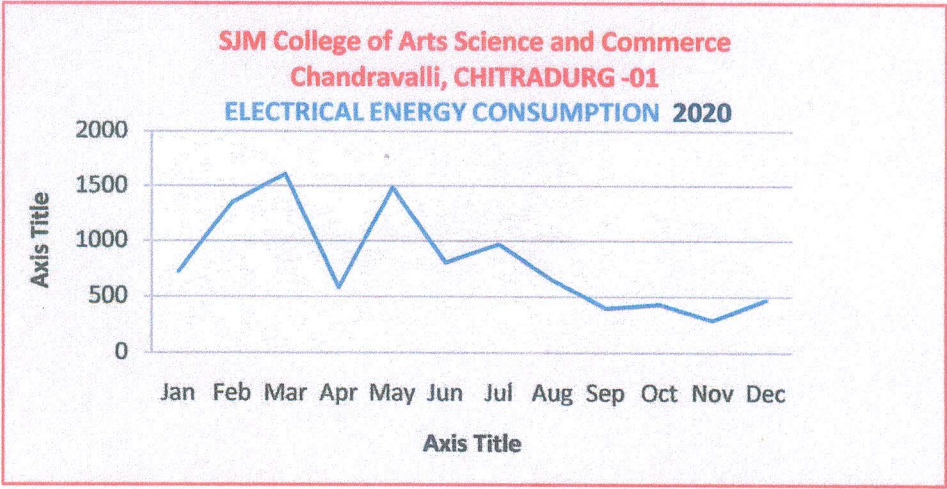
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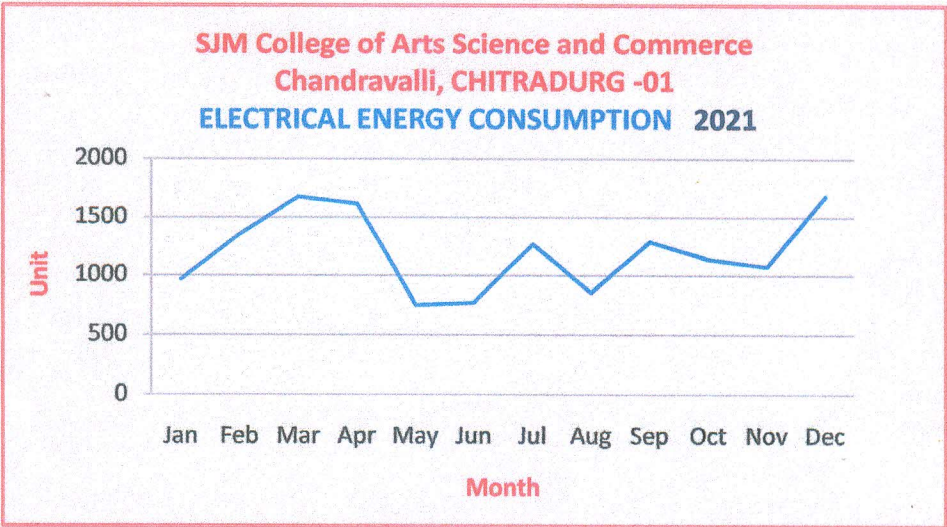
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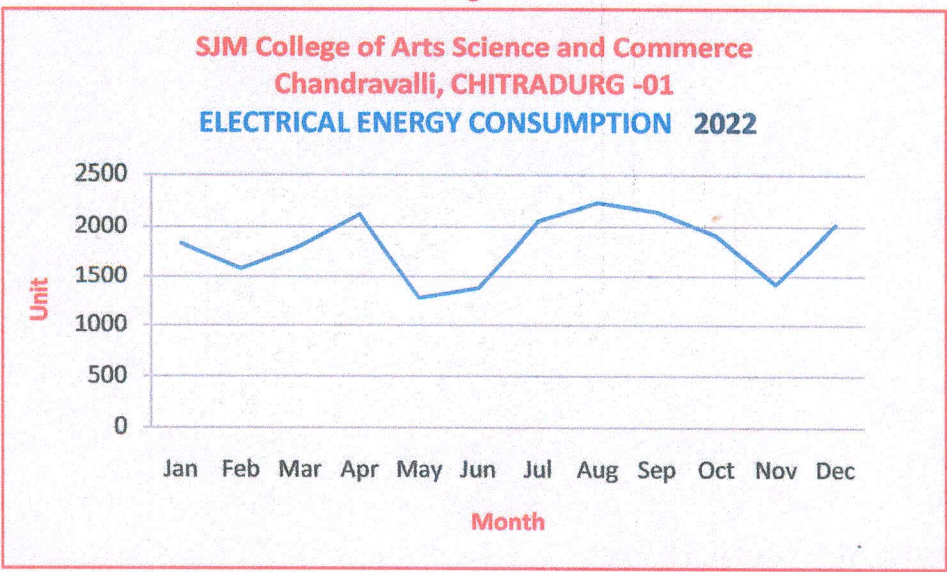
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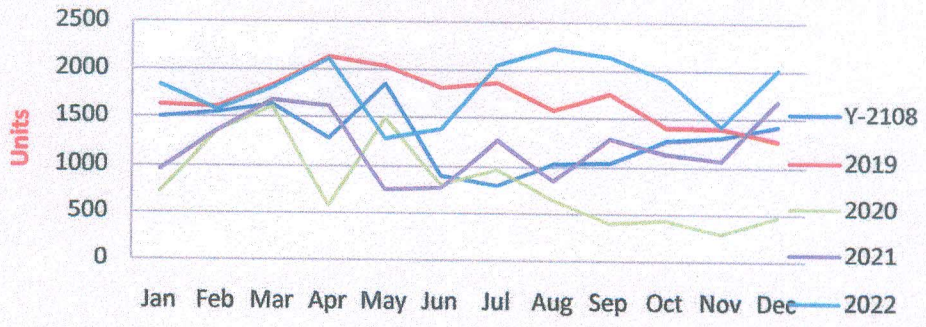
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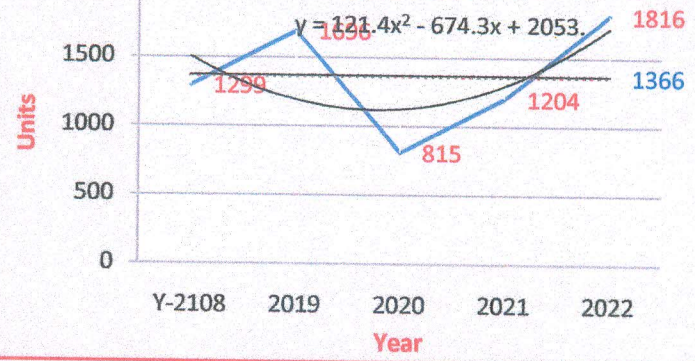
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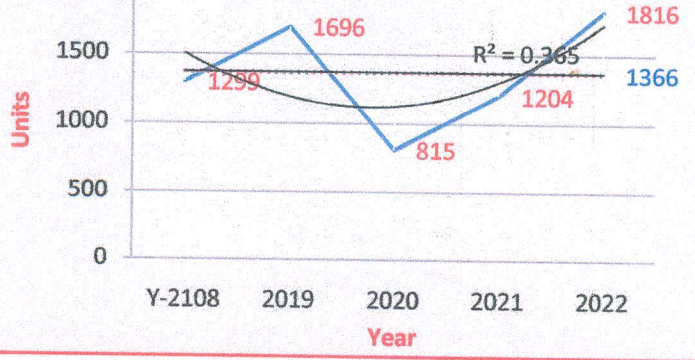
**SJM College of Arts Science and Commerce
Chandravalli, CHITRADURG -01
A PROFILE ELECTRICAL ENERGY CONSUMPTION
2018 to 2022**

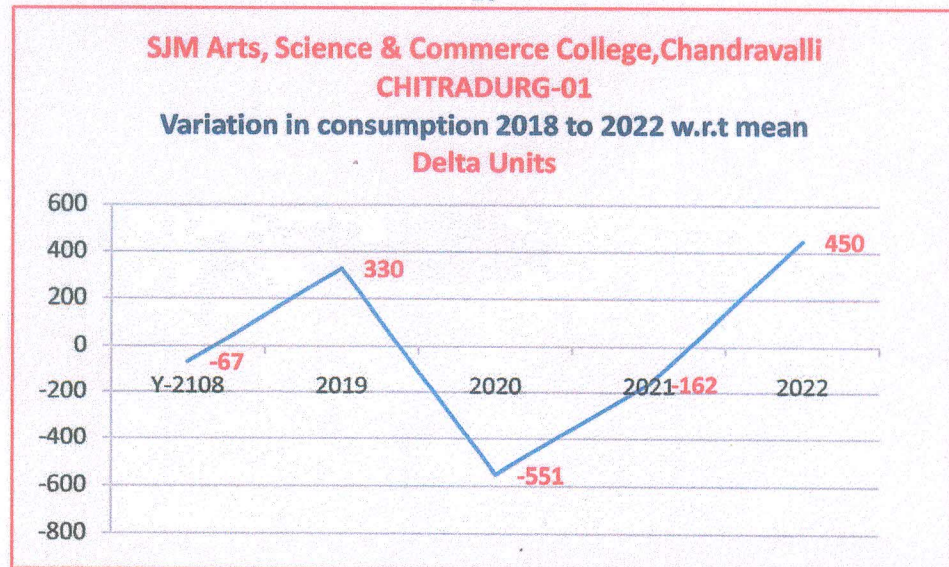


**SJM Arts, Science & Commerce College, Chandravalli
CHITRADURG-01
Consolidated Energy profile 2018 to 2022**



**SJM Arts, Science & Commerce College, Chandravalli
CHITRADURG-01
Consolidated Energy profile 2018 to 2022**





CONCLUSIVE REPORT

OPTIMUM ENERGY UTILIZATION POLICY

1. Energy sensitization programs are set up in the campus.
2. Awareness is spread among the staff and students regarding judicious use of electrical energy
3. Additional stand alone solar units are installed at prime location of the campus
4. The energy utility curve has a initial exponential decline trend, later exponential increase
5. The average monthly utilization of electric energy is 1366 Units (KWH)
6. A polynomial equation fits the energy utilization curve .
7. The polynomial equation is $y = 121.4x^2 - 674.3x + 2053$.
8. Order of the polynomial = 2
9. R squared value = $R^2 = R^2 = 0.365$ is in a acceptable value
10. Since R^2 value is nearer to 0.5 the polynomial fits the data
11. Slope $m = -0.1795$
12. Negative slope Good Symptom Electric energy is used very Judiciously

(Signature)





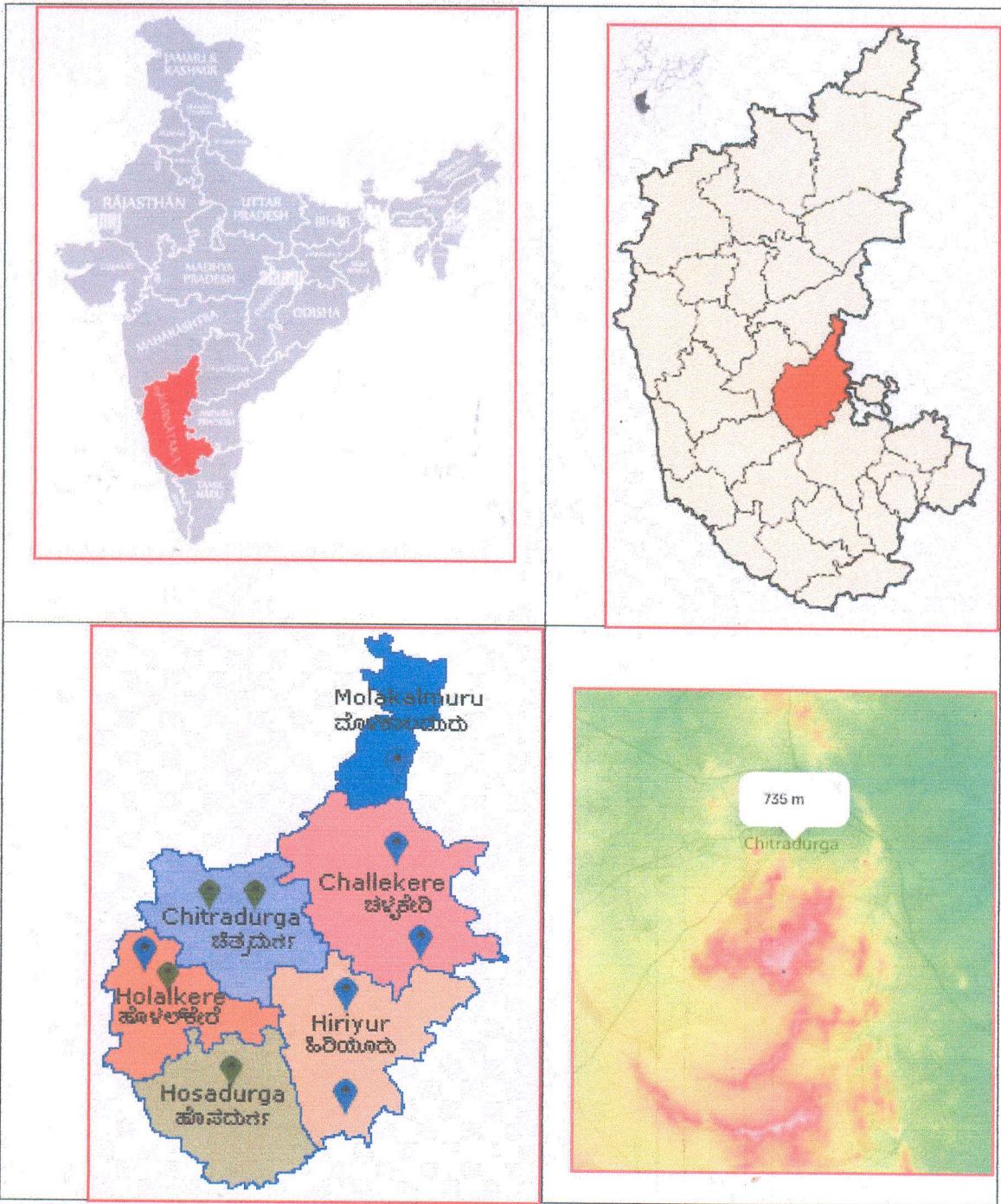
SOLUTIONS

ENVIRONMENT AUDIT



*Global Eco Tech and Solutions, # 2309, I - cross Mahantesh nagar
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LOCATION DETAILS ABOUT CHITRADRUG





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It seems to be that, the city is free from industrial harmful- gas effluents.

AIRVEDA Camera 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 Weather parameters of Chitradurg Dist Chitradurg are follows.

GEOGRAPHICAL PARAMETERS

1. Altitude from sea level : 735 m. (2411.35 ft)
2. Latitude: 14.213918N,
3. Longitude: 76.381010 E
4. Geographical location: Krishna main basin (River Vedavati Tungabhadra sub basin)
5. Weather Chart of Chitradurg (Ref: *Koppen Gieger Weather Chart.*) : BSh
6. Topo sheet : enclosed
7. Perennial water flow direction : N-W to S-E
8. Chitradurg : Mainly a Business Center,a district place .

PHYSICAL PARAMETERS

9. Average Temperature : 18 to 36 Celsius.
10. Average rainfall : 100 - 406 mm.
11. Rainy peak month : August-September
12. Best season : Sep to Nov
13. Snow fall : Nil



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14. Gust and wind velocity 20 to 32 km / h
15. Average pressure : 1007 to 1013 mb
16. Average Humidity : 20 % to 75%
17. Least humid period : March to May
18. Max Sun Hours :370
19. UV Index : 5 to 7.5 normal
20. Average rain days ; 45 to 50
21. Clear Visibility : up to 7 to 10 km

SUSTANABLE POLLUTION LEVELS

22. Primary Pollutant PM 2.5

- | | | |
|--------------------------------|----------------------------------|--|
| 23. AQI level : 91 | Good | (Very safe as MoEF per standards) |
| 24. RPM : 02 | 28.88 $\mu\text{g m}^{-3}$ Good | (605 $\mu\text{g m}^{-3}$ as per MoEF standards.) |
| 25. SPM: 31 | 32.58 $\mu\text{g m}^{-3}$ Good | (100 $\mu\text{g m}^{-3}$ as per MoEF standards) |
| 26. NO _x level : 01 | 01.00 $\mu\text{g m}^{-3}$ Good | (80 $\mu\text{g m}^{-3}$ as per MoEF standards.) |
| 27. SO _x level : 01 | 01.36 $\mu\text{g m}^{-3}$ Good | (50 $\mu\text{g m}^{-3}$ as per MoEF standards.) |
| 28. O ₃ level : 50 | 124.74 $\mu\text{g m}^{-3}$ Good | (100 $\mu\text{g m}^{-3}$ as per MoEF standards.) |
| 29. CO level: 2.00 | 230.00 $\mu\text{g m}^{-3}$ Good | (250 $\mu\text{g m}^{-3}$ as per MoEF standards.) |
| 30. The pollution levels : | Well within safe range | (as per MoEF standard) |
| 31. dB level: around 40 to 58 | Better range . | (as per the BIS audible standards). |
| 32. The illumination level : | Better range | (as per BIS mark 3646 part I.) |

TYPE OF SOIL, PH, QUALITY OF WATER AND GREENARY


33. **Type of soil** :Red loamy mix with lateritic soil with PH of soil : 6.5 to 7.8
34. **Water quality** : corporation Water RO and UV filter (Report is enclosed in separate sheet)
35. Greenery in the campus : Appreciable

MISCELLANEOUS

36. Max Hottest day 28th April 12.22PM +5.30 GMT
37. Max Humid day 12th Aug 12.30 PM + 5.30 GMT
38. Distance from Equator : 1580.51 km
39. Distance from Tropic Cancer 1020.9 km
40. Electromagnetic Radiation < 40 μT (safe as per the BIS standards).

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


Technical staff

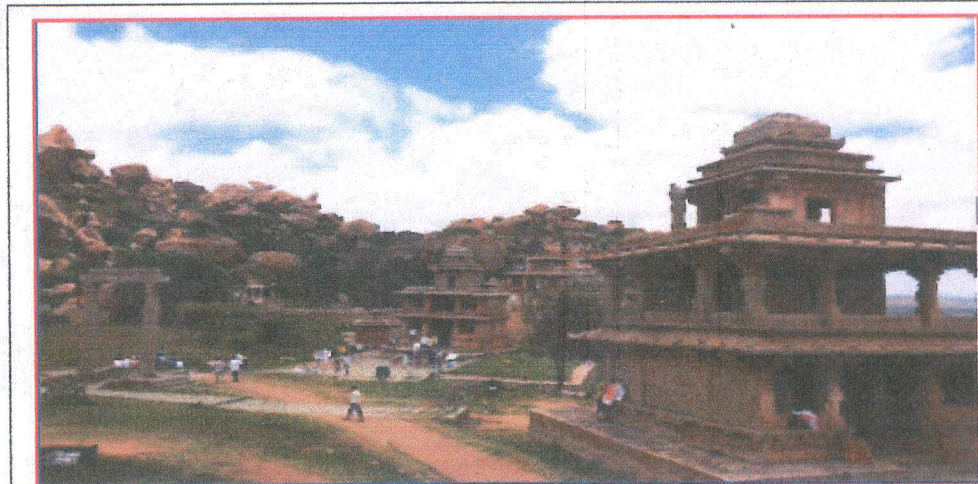
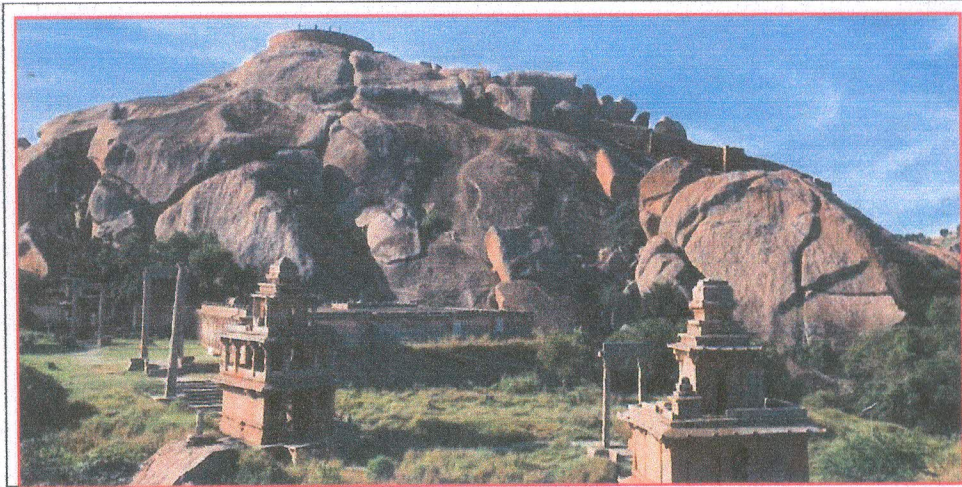
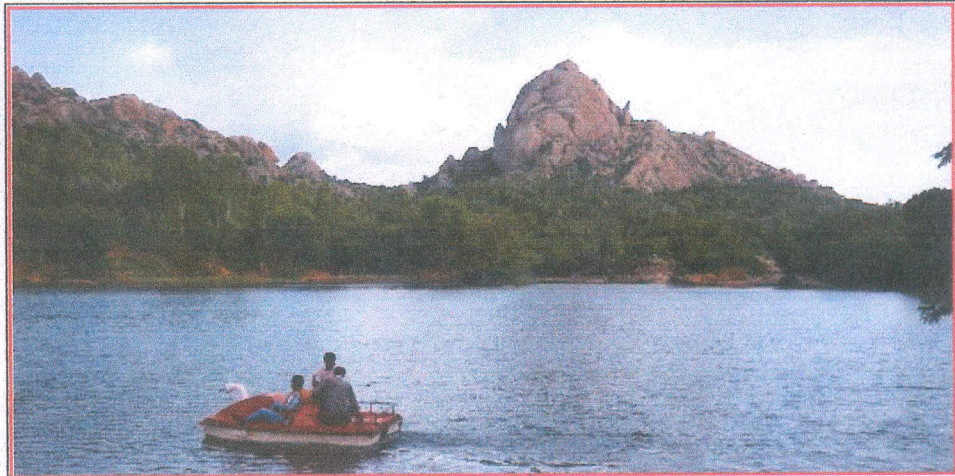

Convener

Environment Audit Team

Date :22nd Dec 2023
Place :Chitradurg

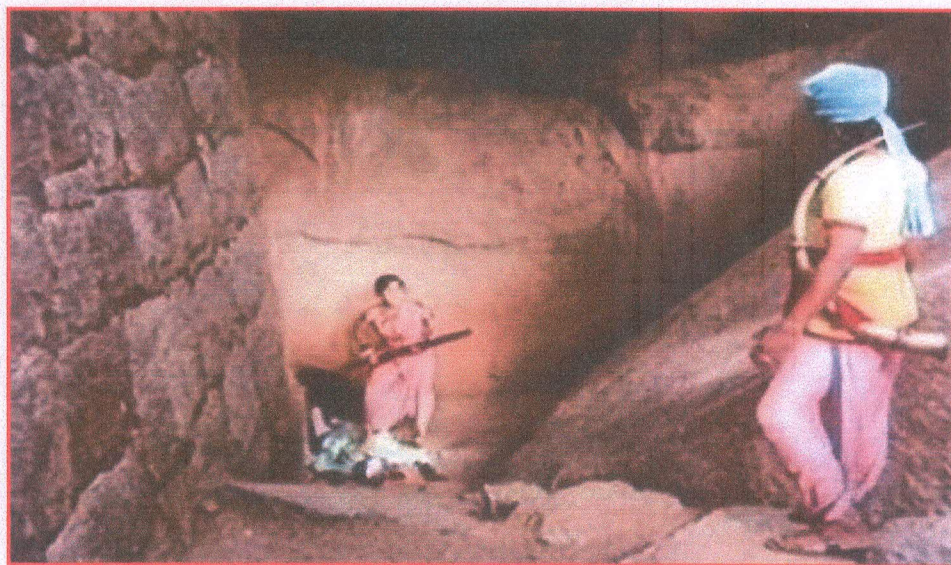
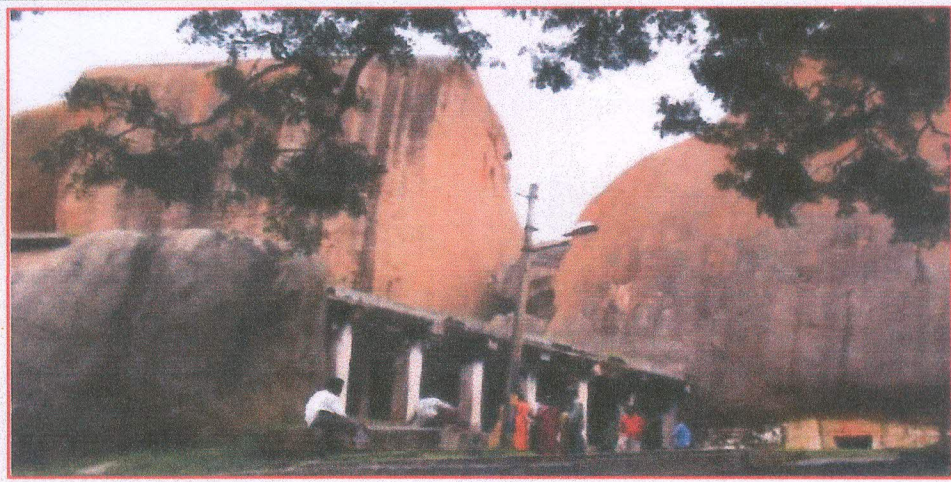


SERENE BEAUTY OF CHITRADURG



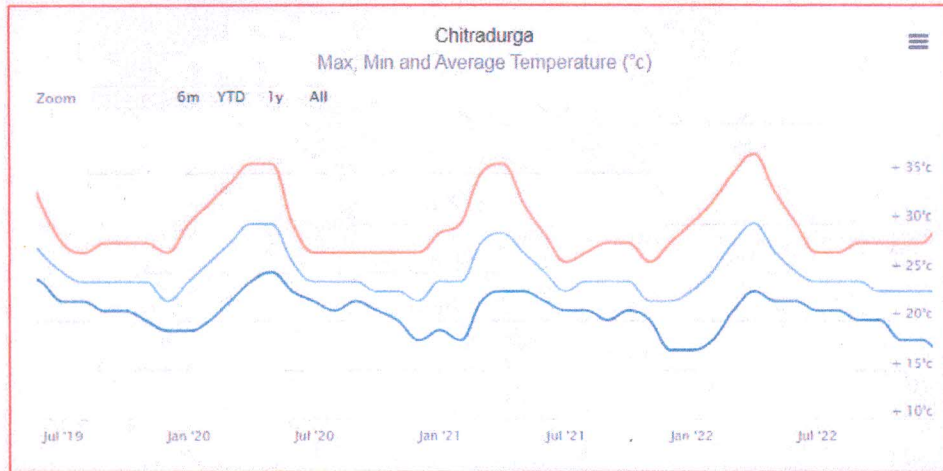
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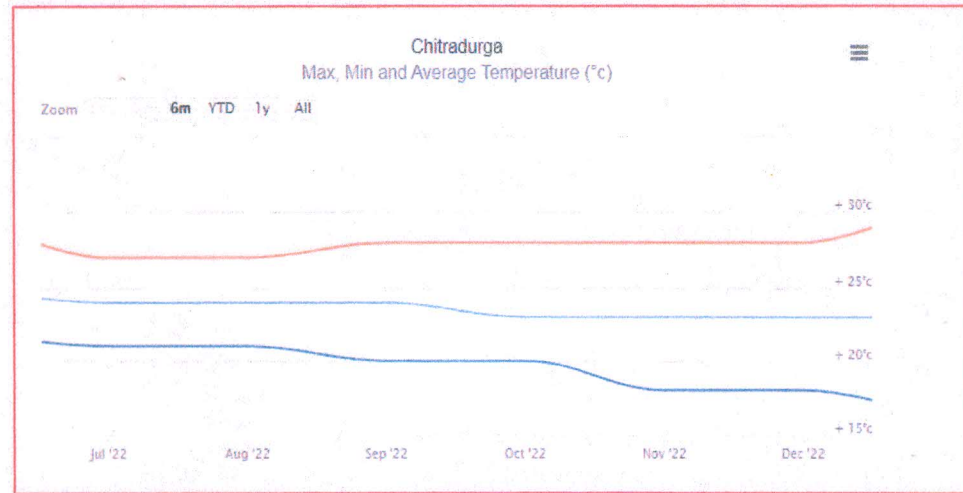


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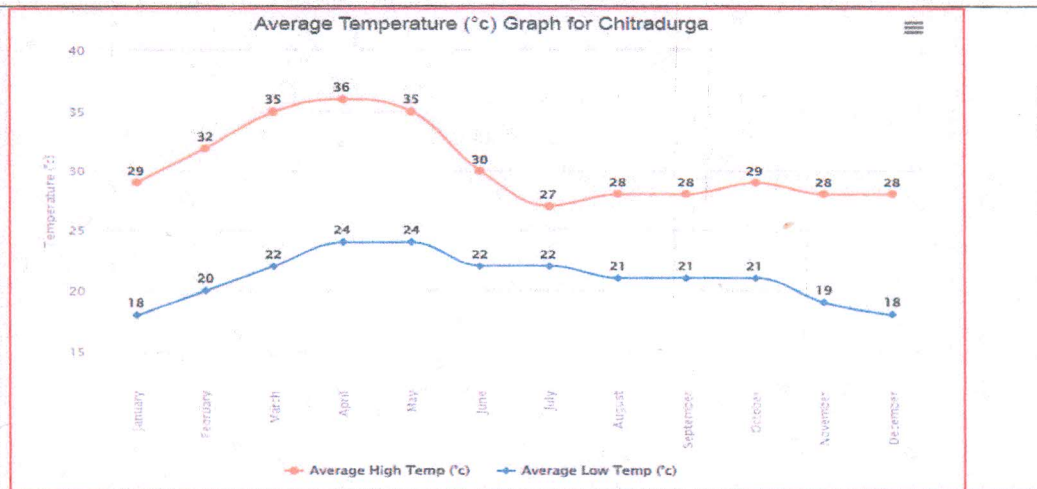
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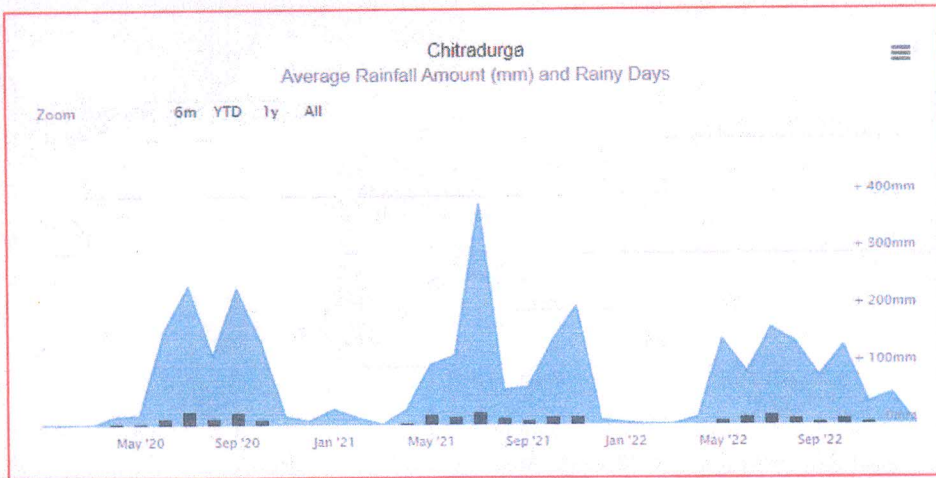


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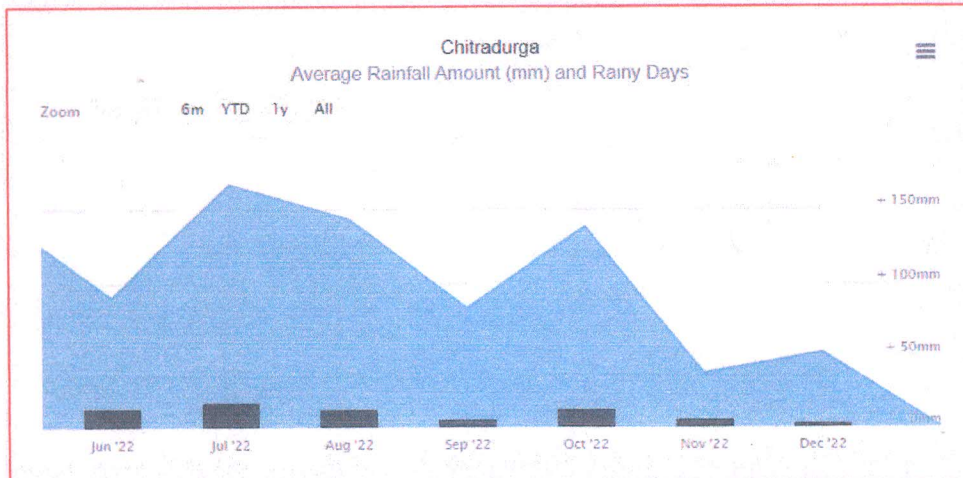


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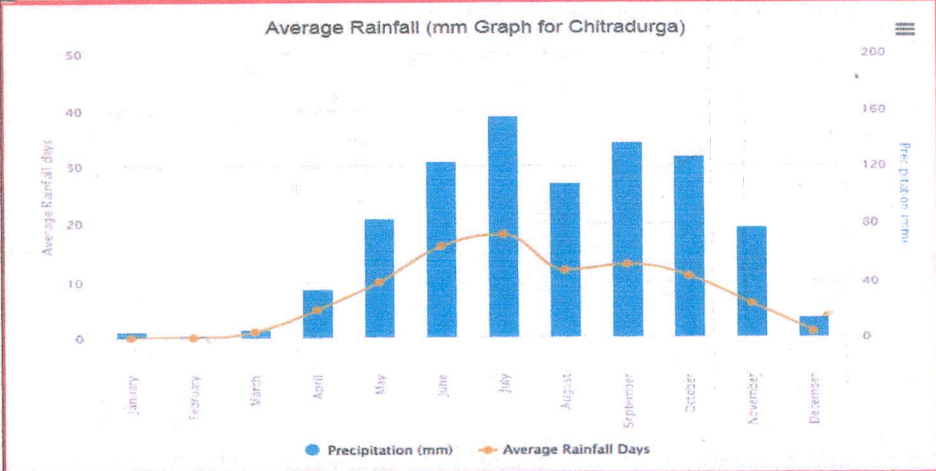
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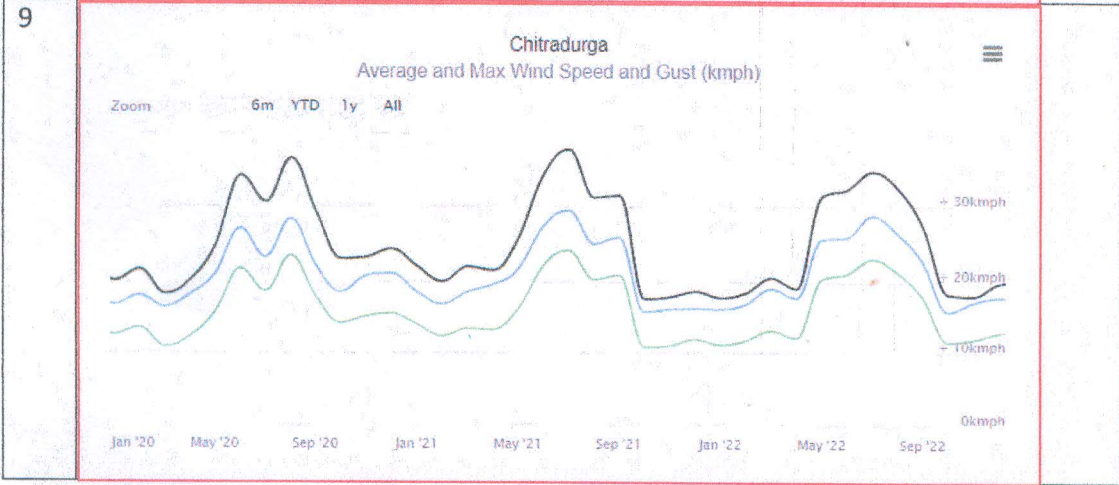
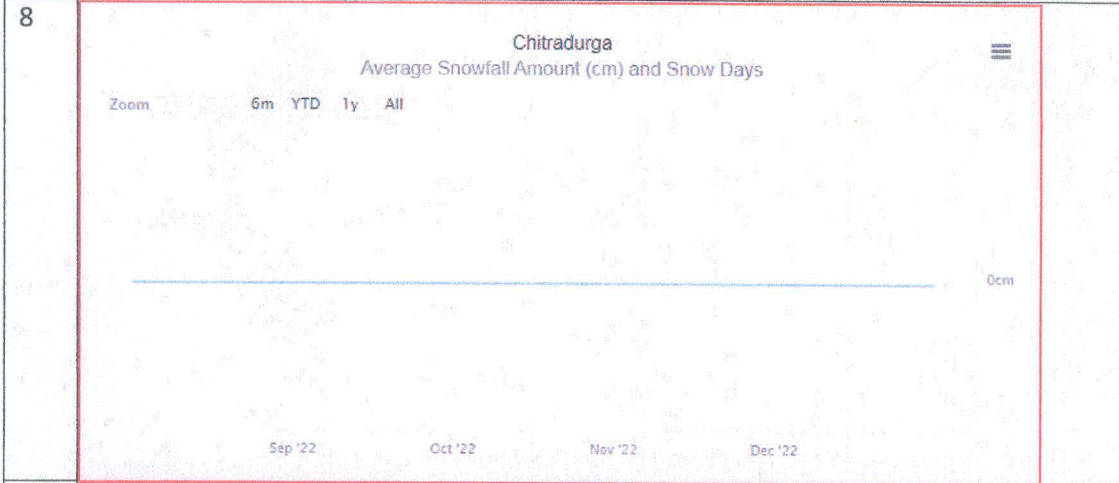
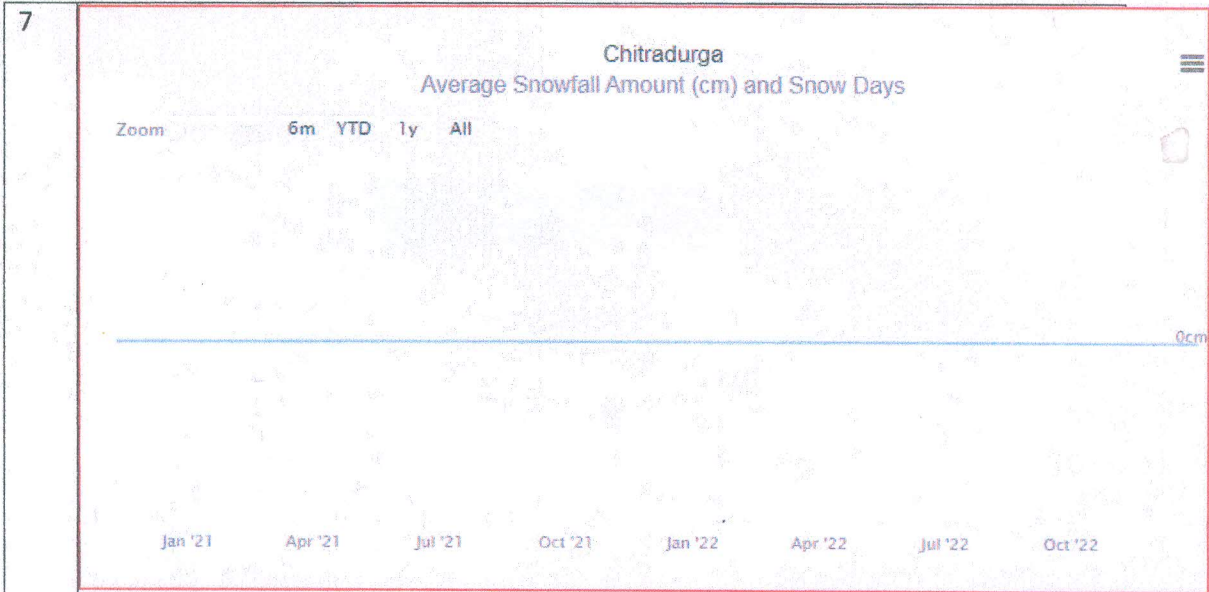


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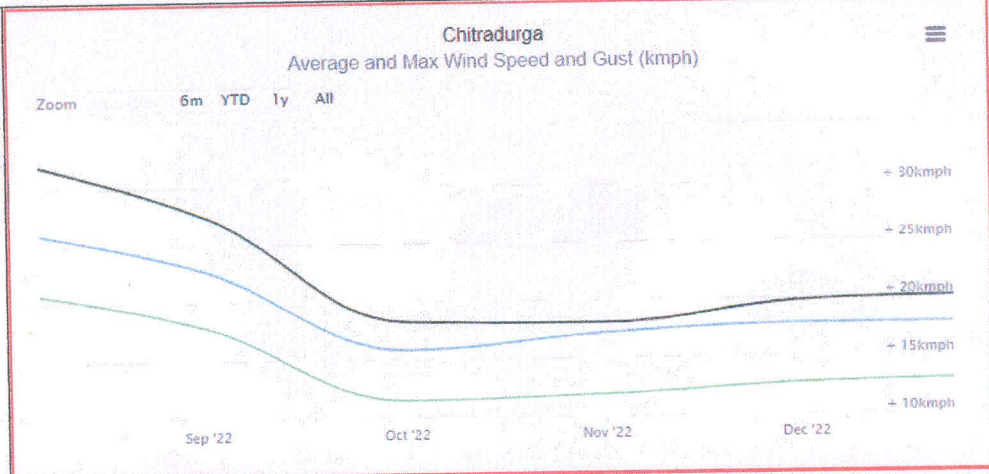




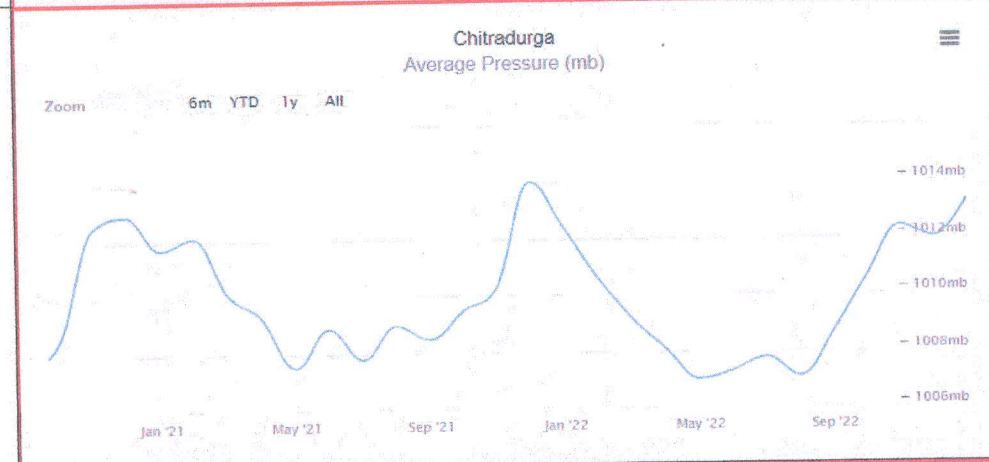
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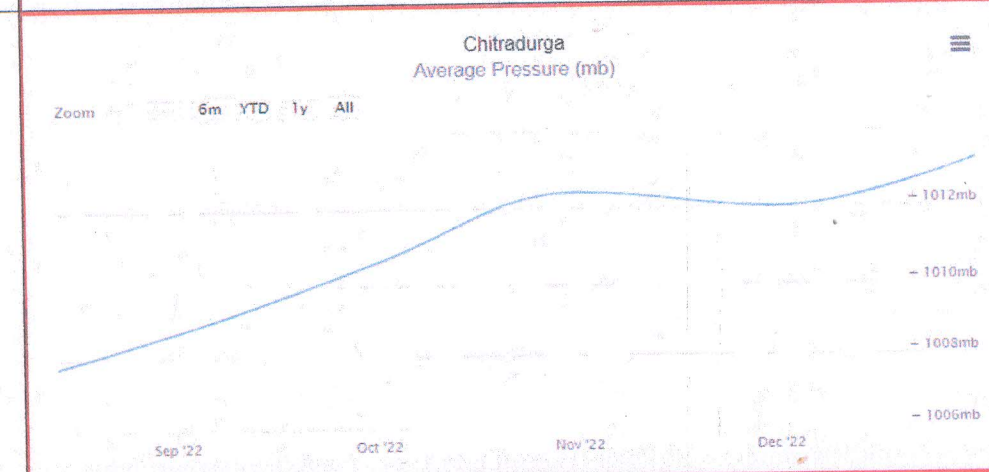
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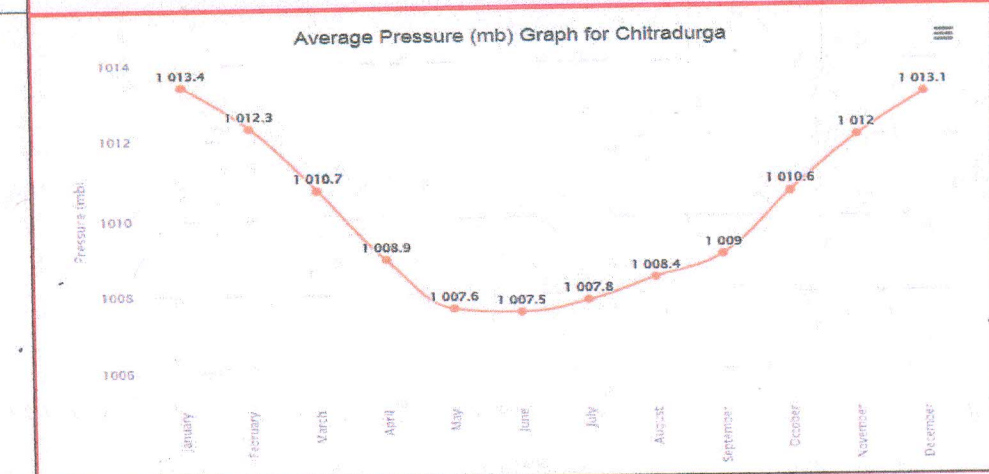
11



12



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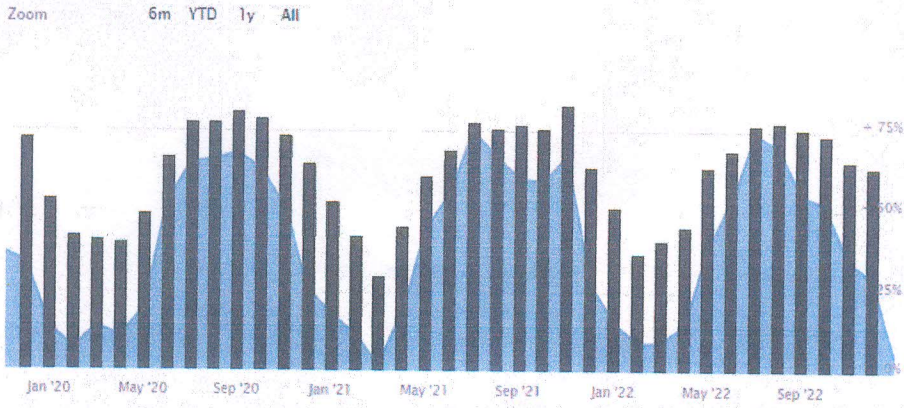


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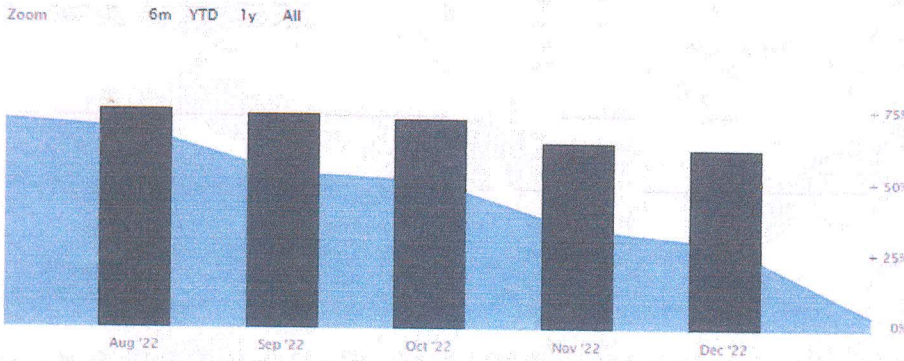
14

Average Cloud and Humidity (%)



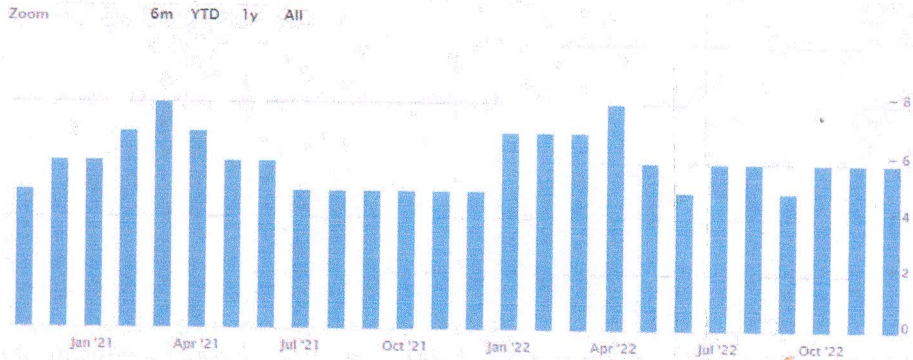
15

Chitradurga Average Cloud and Humidity (%)



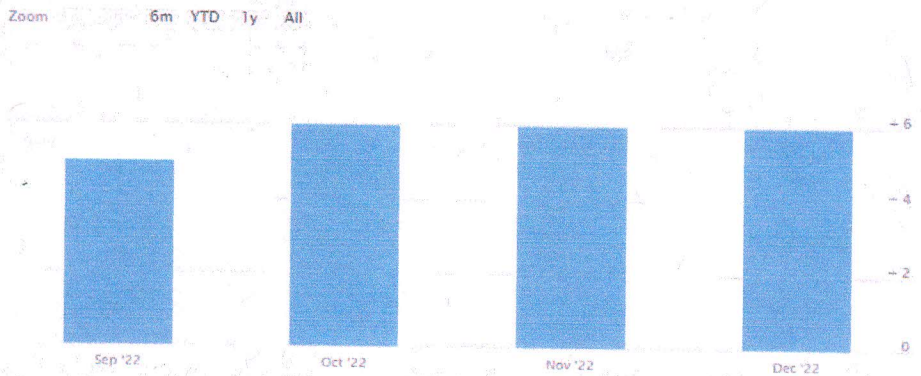
16

Chitradurga Average UV Index



17

Chitradurga Average UV Index

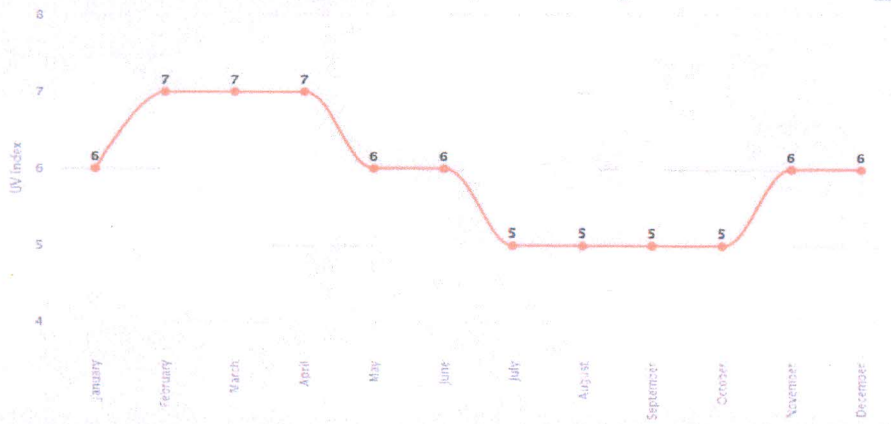


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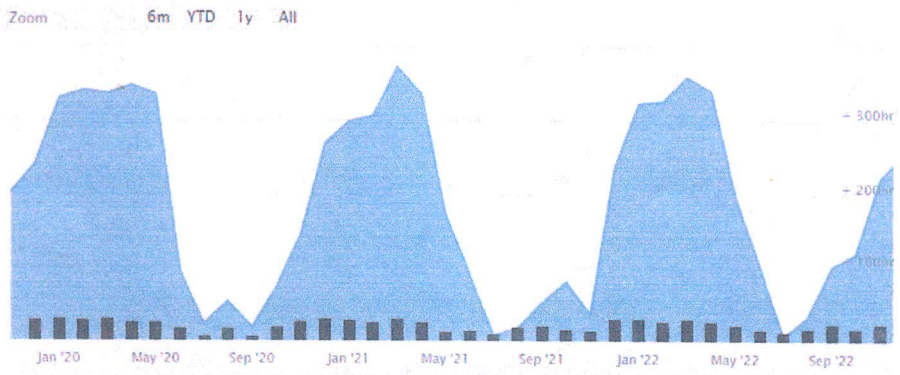
18

Average UV Index Graph for Chitradurga



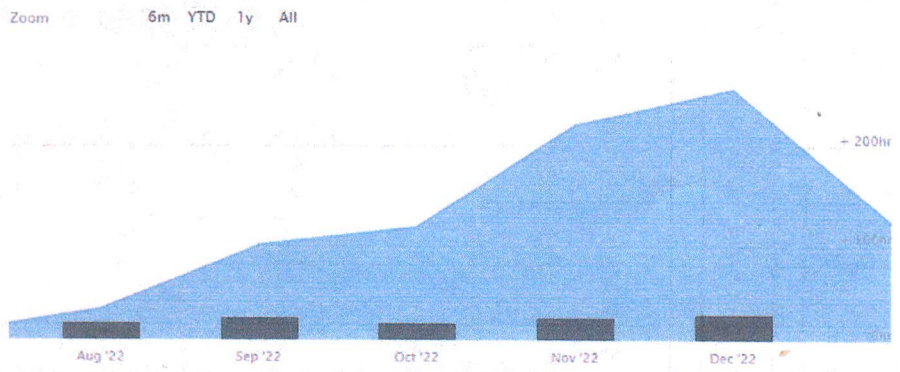
19

Chitradurga
Average Sun Hours and Sun Days



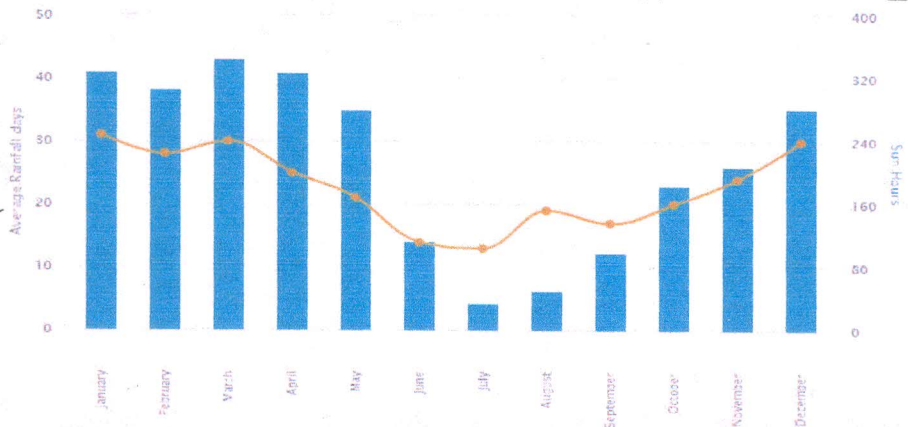
20

Chitradurga
Average Sun Hours and Sun Days



21

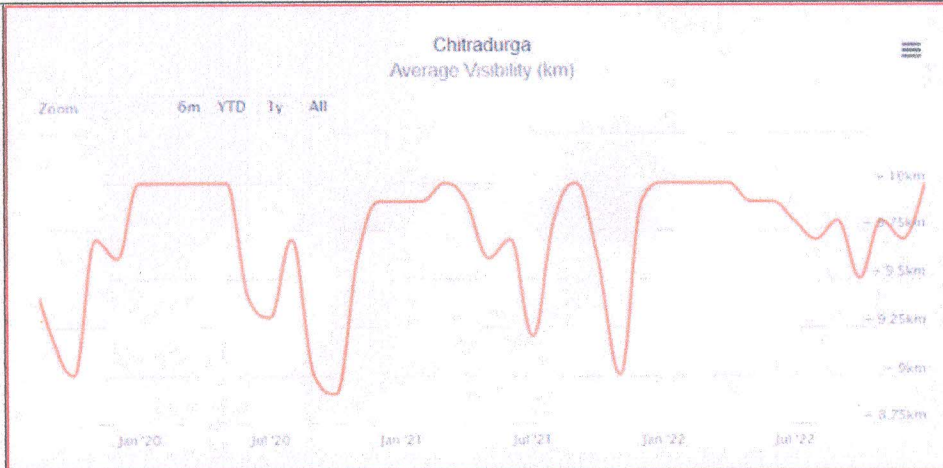
Average Sun Hours (Graph for Chitradurga)



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22



23

Air Quality

91 **Moderate**
Primary Pollutant: PM2.5

① Air Quality Index

Summary

Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.

Primary Pollutant

91 **Moderate**
PM2.5
(Particulate matter less than 2.5 microns)
29.83 µg/m³

All Pollutants

All Pollutants

91 **Moderate**
PM2.5 (Particulate matter less than 2.5 microns)
29.83 µg/m³


2 **Good**
CO (Carbon Monoxide)
250 µg/m³


1 **Good**
NO2 (Nitrogen Dioxide)
1.09 µg/m³

50 **Good**
O3 (Ozone)
103.71 µg/m³

31 **Good**
PM10 (Particulate matter less than 10 microns)
52.51 µg/m³

1 **Good**
SO2 (Sulfur Dioxide)
1.01 µg/m³


Technical staff


Convener
Environment Audit Team

Date : 22nd Dec 2023
Place : Chitradurg





UKAI-GLHV-23-169178



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e-mail : beecube81@gmail.com
Cell No : 9902428248, Reg No : UD-KR-04-058972

ENVIRONMENT AUDIT REPORT

This is to certify that, *Our Audit Team* has visited SJM Arts & Commerce College, Chandavalli CHITRADURG Dist : Chitradurg 577 501, on 22nd Dec 2023 and undertook the “*Environment Audit*” of college campus.

The college is located in Chitradurg City Corporation limits. The population of Chitradurg is 16,59,456 as per 2011 census.(Now in 2023 projected population is 18,10,000.) Chitradurg is known since Ashoka period for Brahmagiri rock edicts) Chitradurg city is absolutely business centre.

The Chitradurg district is known for the **oldest dam in Karnataka** and **Vani Vilas Sagar Lake**. Chitradurg city is well known for flower market. This is mainly because of temperature adequate humidity, soil PH, and fertility of land in almost all talukas of the district. It seems to be that, the city is free from industrial harmful- gas effluents.

AIRVEDA Camera 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 Weather parameters of Chitradurg Dist Chitradurg are follows.

GEOGRAPHICAL PARAMETERS

1. Altitude from sea level : 735 m. (2411.35 ft)
2. Latitude: 14.213918N,
3. Longitude: 76.381010 E
4. Geographical location: Krishna main basin (River Vedavati Tungabhadra sub basin)
5. Weather Chart of Chitradurg (Ref: *Koppen Gieger Weather Chart.*) : BSh
6. Topo sheet : enclosed
7. Perennial water flow direction : N-W to S-E
8. Chitradurg : Mainly a Business Center,a district place .

PHYSICAL PARAMETERS

9. Average Temperature : 18 to 36 Celsius.
10. Average rainfall : 100 - 406 mm.
11. Rainy peak month : August-September
12. Best season : Sep to Nov
13. Snow fall : Nil



14. Gust and wind velocity 20 to 32 km / h
15. Average pressure : 1007 to 1013 mb
16. Average Humidity : 20 % to 75%
17. Least humid period : March to May
18. Max Sun Hours :370
19. UV Index : 5 to 7.5 normal
20. Average rain days ; 45 to 50
21. Clear Visibility : up to 7 to 10 km

SUSTANABLE POLLUTION LEVELS

22. Primary Pollutant PM 2.5

23. AQI level :	91	Good	(Very safe as MoEF per standards)
24. RPM :	02	28.88 $\mu\text{g m}^{-3}$	Good (605 $\mu\text{g m}^{-3}$ as per MoEF standards.)
25. SPM:	31	32.58 $\mu\text{g m}^{-3}$	Good (100 $\mu\text{g m}^{-3}$ as per MoEF standards)
26. NO _x level :	01	01.00 $\mu\text{g m}^{-3}$	Good (80 $\mu\text{g m}^{-3}$ as per MoEF standards.)
27. SO _x level :	01	01.36 $\mu\text{g m}^{-3}$	Good (50 $\mu\text{g m}^{-3}$ as per MoEF standards.)
28. O ₃ level :	50	124.74 $\mu\text{g m}^{-3}$	Good (100 $\mu\text{g m}^{-3}$ as per MoEF standards.)
29. CO level:	2.00	230.00 $\mu\text{g m}^{-3}$	Good (250 $\mu\text{g m}^{-3}$ as per MoEF standards.)
30. The pollution levels :	Well within safe range		(as per MoEF standard)
31. dB level:	around 40 to 58	Better range .	(as per the BIS audible standards).
32. The illumination level :	Better range		(as per BIS mark 3646 part I.)

TYPE OF SOIL, PH, QUALITY OF WATER AND GREENARY

33. **Type of soil** :Red loamy mix with lateritic soil with PH of soil : 6.5 to 7.8
34. **Water quality** : corporation Water RO and UV filter (Report is enclosed in separate sheet)
35. Greenery in the campus : Appreciable

MISCELLANEOUS

36. Max Hottest day 28th April 12.22PM +5.30 GMT
37. Max Humid day 12th Aug 12.30 PM + 5.30 GMT
38. Distance from Equator : 1580.51 km
39. Distance from Tropic Cancer 1020.9 km
40. Electromagnetic Radiation < 40 μ T (safe as per the BIS standards).

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


Technical staff


Convener

Environment Audit Team

Date :22nd Dec 2023

Place :Chitradurg





RAMP FOR DIVYANGJAN STUDENTS

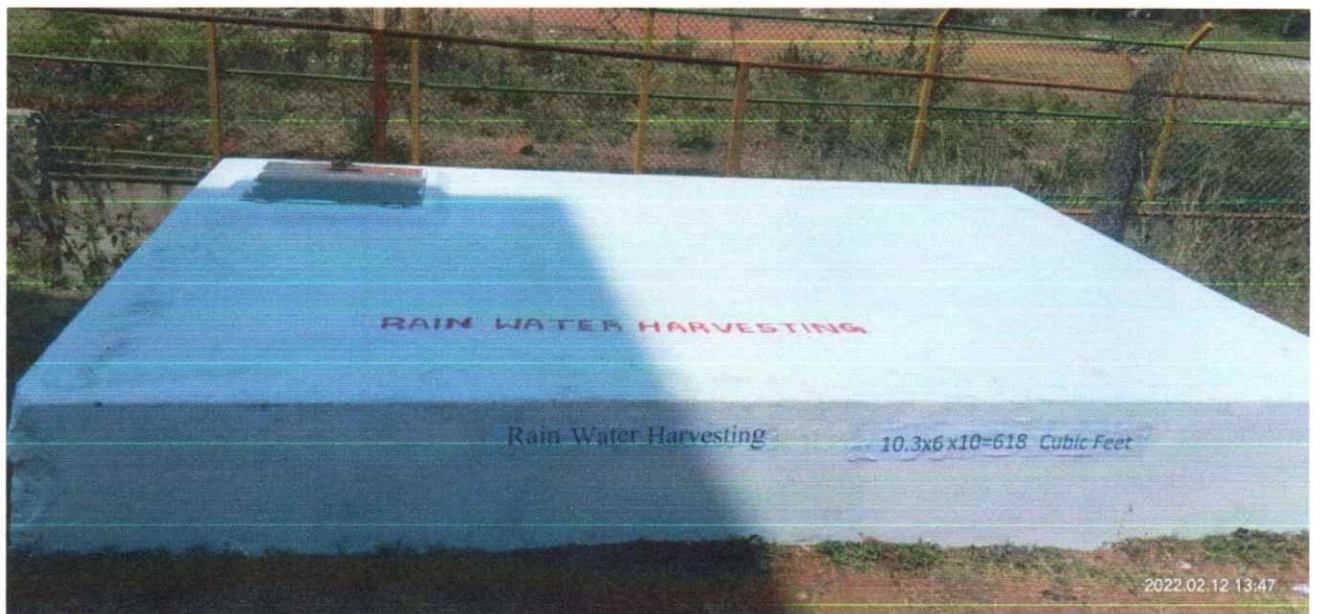


J. S. S. S.
PRINCIPAL

Sri Jagadguru Murugarajendra College
of Arts, Science & Commerce
CHITRADURGA



RAIN WATER HARVESTING PIPE LINE CONNECTED TO STORAGE TANK



Rain water harvesting is a process of collecting and storing rain water in a scientific method and preserving it for the better and economic use. this valuable water fulfills the water requirements for drinking and other purpose in college.

In our college "flat roof water harvesting "process is followed normally with RCC having water proof material without let pipe connection. This pipeline is fixed and connected to ground surface water tank having 30000-lt capacity and this rain water harvesting helps in meeting water requirements of the college campus in all seasons.


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Bore Well



A bore well is of 12" in diameter drilled into the earth for retrieving water. Ground water recharge; overflow of rainwater from storage tank and other structure are allowed to percolate into the ground. Here the pipeline is connected to bore well from check dam. As a result, ground water level will increase. This is an ideal solution for water requirements in the surrounding area of the college campus.





WASTE MANAGEMENT

To manage solid waste, separate dustbins for degradable and non-degradable waste are installed at different places in the campus. Non degradable waste is collected by the municipality vehicle. The degradable waste along with other plant waste will be disposed in the compost pit. The manure obtained from the compost pit is used as fertilizer.

E-waste will be sold to scrap buyers with the permission of Principal and college governing body. The campus is a plastic free zone due to the constant awareness created by the faculty among the students regarding the harmful effects of dumping plastic in the environment. Chemical wastes from the laboratories are neutralized with water.




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ROOF TOP SOLAR PANELS

Roof top solar panels are installed in the college building .

ROOF TOP SOLAR PANELS



J. Srinivas
PRINCIPAL

Sri Jagadguru Murugharajendra College
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CHITRADURGA





Green plantation



Principals
PRINCIPAL



check dam



A check dam is constructed in the college campus, which collects about 4 lakes liters of rain water the check dam is constructed in area of 30ft length and 10 feet depth. This check dam water is connected to bore well to recharge ground water level. This water thus harvested is used in college for drinking purpose. Gardening, canteen, department labs etc., which full fills water requirements of the whole college.




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Vehicles free zone



J. J. J.
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Management of Degradable and non-degradable waste.



Dosschi-86
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CHITRADURGA



Dust bins



J. S. Chinnappa
PRINCIPAL

Sri Jagadguru Murugharajendra College
of Arts, Science & Commerce
CHITRADURGA



ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಮಣ್ಣು ಆರೋಗ್ಯ ಕೇಂದ್ರ, ಕೃಷಿ ಇಲಾಖೆ, ಆರ್.ಎಂ.ಸಿ. ಯಾರ್ಡ್ ರಸ್ತೆ, ಚಿತ್ರದುರ್ಗ -577501

Email : soilhealthchitradurga123@gmail.com

ಮಣ್ಣು ಪರೀಕ್ಷಾ ಪ್ರಯೋಗಾಲಯ ವರದಿ

Ref: No : STL/CTA/07/2023-24

ದಿನಾಂಕ : 15/09/2023

ಹೆಸರು : SJM COLLEGE OF ARTS SCIENCE & COMMERCE (DEPARTMENT OF BOTANY)

ಜಿಲ್ಲೆ : ಚಿತ್ರದುರ್ಗ

ತಾಲ್ಲೂಕು : ಚಿತ್ರದುರ್ಗ

ವಿಸ್ತೀರ್ಣ : 10.00ಎ

ಮಾದರಿ ಸಂಗ್ರಹಿಸಿದ ದಿನಾಂಕ : 13/09/2023

ಮಣ್ಣಿನ ಬಣ್ಣ, ಆಳ ಹಾಗೂ ಮಣ್ಣಿನ ಕಣಗಳ ರಚನೆ : ಕೆಂಪು

ಮಣ್ಣಿನ ರಾಸಾಯನಿಕ ತಪಾಸಣೆ ವರದಿ

ಕ್ರ.ಸಂ	ಮಣ್ಣು ಪರೀಕ್ಷಾ ವಿವರ	ಪರೀಕ್ಷಾ ಫಲಿತಾಂಶ	ಸಾಮಾನ್ಯ	ವಿವರಣೆ
1	ರಸಸಾರ(pH)	7.25	5.5-7.5	ಹಳೆ : ತಟ್ಟಣೆ : ಕ್ಷಾರ ಮಣ್ಣು
2	ಎಡ್ಜುತ್ ವಾಹಕತೆ(EC) (deci simons / mtr)	0.35	< 1	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
3	ಸಾವಯವ ಇಂಗಾಲ (OC) %	0.42	0.5 - 0.75	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
4	ಲಭ್ಯವಿರುವ ಸಾರಜನಕ (N)	0.212	120-280	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
5	ಲಭ್ಯವಿರುವ ರಂಜಕ (P2O5) ಕೆ.ಜಿ/ಹೆ	28.36	10-25	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
6	ಲಭ್ಯವಿರುವ ಪೊಟ್ಯಾಷ್(K2O) ಕೆ.ಜಿ/ಹೆ	129.36	50 -120	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
7	ಲಭ್ಯವಿರುವ ಗಂಧಕ (S) ಪಿ.ಪಿ.ಎಂ	12.4	10-20	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
8	ಲಭ್ಯವಿರುವ ಬೋರಾನ್ (B) ಪಿ.ಪಿ.ಎಂ	0.4	0.50	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
9	ಲಭ್ಯವಿರುವ ಸತು (Zn)	0.58	0.6 ppm	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
10	ಲಭ್ಯವಿರುವ ಕಬ್ಬಿಣ (Fe)	3.9	4.5 ppm	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
11	ಲಭ್ಯವಿರುವ ಮ್ಯಾಂಗನಿಸ್ (Mn)	2.1	2.0 ppm	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ
12	ಲಭ್ಯವಿರುವ ತಾಮ್ರ (Cu)	0.2	0.2 ppm	ಕಡಿಮೆ : ಮಧ್ಯಮ : ಅಧಿಕ ಪ್ರಮಾಣ

ಪರೀಕ್ಷಾ ಫಲಿತಾಂಶದ ವಿವರಣೆ ಮತ್ತು ಶಿಫಾರಸ್ಸು

ಮಣ್ಣಿನ ಸುಧಾರಣೆಗೆ ಸಲಹೆಗಳು

1. ಕ್ಷಾರ ಮಣ್ಣು ಸುಧಾರಿಸಲು ಎಕರೆಗೆ 2 ಟನ್ ಜಿಪ್ಸಂನ್ನು ಮಣ್ಣಿಗೆ ಬೆರೆಸಿ ಬಿಸಿಗಾಲುವೆ ತೆಗೆದು ಒಳ್ಳೆಯ ಗುಣಮಟ್ಟದ ನೀರನ್ನು ಹಾಯಿಸಿ ಬಿಸಿಯಿರಿ.
2. ಲವಣಾಂಶವು ಅಪಾಯಕಾರಿ ಮತ್ತು ಹಾನಿಕಾರಕ ಪ್ರಮಾಣದಲ್ಲಿದ್ದರೆ ಬಿಸಿಗಾಲುವೆ ತೋಡಿ, ಒಳ್ಳೆಯ ಗುಣಮಟ್ಟದ ನೀರನ್ನು ಹಾಯಿಸಿ ಬಿಸಿಯಿರಿ.
3. ರಸಸಾರ ಕಡಿಮೆ ಮಾಡಲು ಕೊಟ್ಟಿಗೆ / ಹಸಿರೆಲೆ / ಸಾವಯವ / ಜೈವಿಕ ಗೊಬ್ಬರಗಳನ್ನು ಜಮೀನಿಗೆ ಉಪಯೋಗಿಸಲು ತಿಳಿಸಿದೆ.

ಸಮಸ್ಯಾತ್ಮಕ ಮಣ್ಣಿನ ಸುಧಾರಣೆಗೆ ಸಲಹೆಗಳು.

1. ಕೃಷಿ ಸುಣ್ಣು = ಕೆ.ಜಿ/ಎಕರೆ
ಜಿಪ್ಸಂ = 200 ಕೆ.ಜಿ/ಎಕರೆ
2. ಬಿಸಿಗಾಲುವೆ ತೋಡಿಸಿ ನೀರು ಹಾಯಿಸುವುದು..

Ranjitha J.D
ಕೃಷಿ ಅಧಿಕಾರಿ
ಮಣ್ಣು ಆರೋಗ್ಯ ಕೇಂದ್ರ
ಚಿತ್ರದುರ್ಗ