

BRILLIANT INSTITUTE OF ENGINEERING AND TECHNOLOGY

Energy Audit Report

2023-24

[Handwritten Signature]
PRINCIPAL
BRILLIANT INSTITUTE OF
ENGINEERING AND TECHNOLOGY
V. & Md: Abdullahpurmet, R.R. Dist-501505.

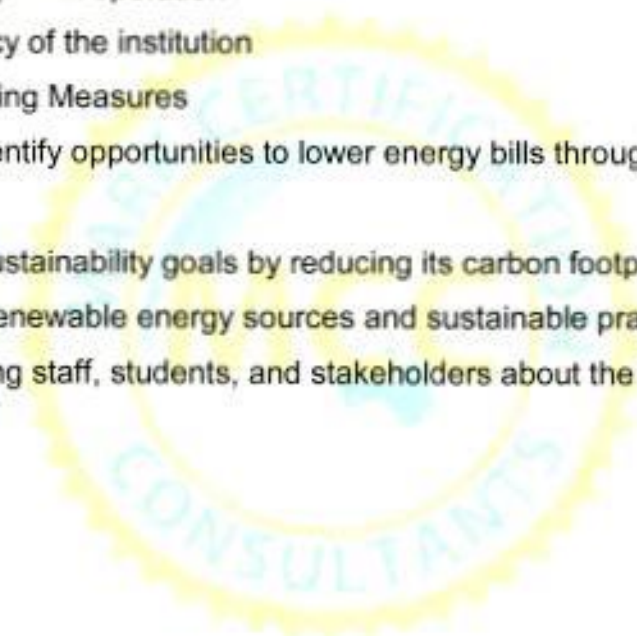
Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tolichowki, Hyderabad-500008)

e-mail: info@markcertification.com, url: www.markcertification.com

Introduction

Conducting an energy audit is a crucial step for any organization or institution aiming to improve its energy efficiency, reduce costs, and minimize environmental impact. The primary purpose of an energy audit include.

1. Identify Energy Consumption Patterns.
2. Detect Energy Wastage: Identify areas where energy is being wasted, such as inefficient lighting, heating, cooling, and equipment operation
3. Evaluate Energy Efficiency of the institution
4. Recommend Energy-Saving Measures
5. Reduce Energy Costs: Identify opportunities to lower energy bills through improved efficiency and reduced consumption.
6. Support the institution's sustainability goals by reducing its carbon footprint and environmental impact.
7. Promote the adoption of renewable energy sources and sustainable practices.
8. Increase awareness among staff, students, and stakeholders about the importance of energy conservation.




PRINCIPAL
BRILLIANT INSTITUTE OF
ENGINEERING AND TECHNOLOGY
V: 8, Medt. Abdullapurmet, R.R. Dist-501506.

Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tolichowki, Hyderabad-500008)

e-mail: info@markcertification.com, url: www.markcertification.com

About College

BRIL - BRILLIANT INSTITUTE OF ENGINEERING & TECHNOLOGY is a highly reputed Institute, established in 2008 with EAMCET Counselling Code **BIET**. **Dr SHAIK RUSTHUM** is the Principal at the helm of affairs of the college. He is an eminent academician and highly accomplished man with vast experience

The Brilliant Group turned a golden leaf with the icon of technical education in Telangana who steered the Engineering education onto the echelons of national and international corridors, a versatile, sagacious genius **Sri Kasireddy Naraya Reddy**, an eminent and dynamic educationalist of our state, taking reigns as the **Chairman** of all the colleges in **Brilliant Group of Technical Institutions**.

He has been leading the Brilliant Grammar High Schools to be among the top-notch schools in our state since 1986. With the same motivation and dynamism, he established the Brilliant Group of Technical Institutions in 2008 and has been constantly upgrading them perpetually to promote a valued technical education in our state.

Our campus is a 70 acre stretch of land with hillocks on one side and plain area on the other three sides. The students are provided with plenty of opportunities to develop their individual talents and abilities and to aspire for excellence in academic and personality development.

At **BRIL**, we believe in engender and promulgate knowledge and talent in core and frontier disciplines through innovative education programs, research, industrial training and consultancy and developing a new cadre of proficient citizens with a high level of competence, profound sense of social commitment and moral ethics

Our Vision

To Produce Technically Competent Socially Committed Technocrats, Prosper captaincy and Bureaucrats through quality Academics and Research.

Our Mission

To create advanced facilities of teaching and practical training to the UG & PG Students.

To inculcate facilities in the arena of Research & Development.

To develop technical manpower through interactive communication, training, short-term courses, seminars, group discussions, mock-interviews, etc.

To initiate the collaborative real life industrial projects with nearby industries and academic institutions.

Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tolichowki, Hyderabad-500008)

e-mail: info@markcertification.com, url: www.markcertification.com


PRINCIPAL
BRILLIANT INSTITUTE OF
ENGINEERING AND TECHNOLOGY
Sd/-: Abdulrasheed B. B. Dkt-501505

Segment	Electrical Equipment	Wattage In Watt	Quantity	Total Loading Watt
Lighting	Tube Light	40	727	29,080
	LED Bulb	18	330	5,940
	LED Street Light	45	15	675
	Sockets	60	950	57,000
	Total Lighting Load			
HVAC (Power Load)	Ceiling Fans	50	463	23,150
	Wall Mount Fan	60	11	660
	Exhaust Fan	40	1	40
	AC	1500	13	19,500
	Machines	62458	56	62,458
	Transformers	28000	14	28,000
	Total HVAC Load			
Office Equipment	Computer	70	332	23240
	Printer	250	16	4,000
	Photo Copy Machine	650	2	1,300
	Speakers	900	4	3,600
	Amplifiers	800	1	800
	Projector	200	12	2,400
	UPS	2800	16	44,800
	Total Office Equipment Load			
Water Supply	Pump 1	746	1	746
	Pump 2	1492	1	1492
	Total Water Supply Load			

Registered Office: (8-1-402/A) S/2, Vani Ganesh Colony, Tolichowki, Hyderabad-500008)

e-mail: info@markcertification.com, url: www.markcertification.com

PRINCIPAL
BRILLIANT INSTITUTE OF
ENGINEERING AND TECHNOLOGY
Vani Ganesh Colony, R.R. Dist-501505.

Others	Block -1	870		870
	Block-2	5670		5670
	store	204		204
	Total Other Load			6,744
Total Load Connected in Kilo Watt				315.625

Segment	Electrical Equipment	Wattage In watts	Quantity	Hours	No. Of Days	Annual Unit Consumption in KW
Lighting	Tube Light	40	727	6	215	37,513.20
	LED Bulb	18	330	6	215	7,662.60
	Street Light	45	15	10	350	2,362.50
	Sockets	60	950	2	215	24,510.00
HVAC	Ceiling Fans	50	463	6	190	26,391.00

transformer substation and distribution of electrical energy of BIET comes under HT consumer tariff i outlined in this part of report. It includes HT line and energy is distributed in. It also includes KVA DG se for back up supply.

It is observed in the year 2023-24 that power consumption can be reduced by replacing CFL bulbs an tube lights by LED tube lights, 330 tube lights were replaced by led bulbs, which reduced nearly 7000V power consumed by the tube lights.

Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tolichowki, Hyderabad-500008)

e-mail: info@markcertification.com, url: www.markcertification.com

PRINCIPAL
BRILLIANT INSTITUTE OF
ENGINEERING AND TECHNOLOGY
Vill & Md: Abdullapurmet, R.R.Dist-501505.

(Power Load)	Wall Mount Fan	60	11	4	190	501.60
	Exhaust Fan	40	1	4	120	19.20
	AC	1500	13	4	120	9,360.00
	Machines	62458	56	1	120	7,494.96
	Transformers	28000	14	1	120	3,360.00
Office Equipment	Computer	70	332	2	150	6,972.00
	Printer	250	16	2	150	1,200.00
	Photo Copy Machine	650	2	2	120	312.00
	Speakers	900	4	1	80	288.00
	Amplifiers	800	1	1	80	64.00
	Project	200	12	3	120	864.00
	UPS	2800	16	2	200	17,920.00
Water Supply	Pump 1	746	1	2	200	298.40
	Pump 2	1492	1	1	200	298.40
Others	Block -1	870		4	200	696.00
	Block-2	5670		5	220	6,237.00
	store	204		3	215	131.58
Total Annual Energy Consumption in KWH						1,52,456.44

Measures to Save Energy:

1. Increasing number of LED bulbs.
2. Regular servicing of DG sets.
3. Create awareness among the students/faculties regarding conservation of energy.
4. Use of solar energy as a source for different electrical equipments

Energy Consumption Details at BIET (FY: 2022-23). Supplier:

Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tolichowki, Hyderabad-500008)

e-mail: info@markcertification.com, url: www.markcertification.com


 PRINCIPAL
 BRILLIANT INSTITUTE OF
 ENGINEERING AND TECHNOLOGY
 (MCAI: Abdullahapur, B. Dist-501505)

Month	Starting Date	Billing Date	Starting Units	Billing units	Number of days	Units consumed	Average units consumed / 30 , days
Apr	1/04/2022	1/05/2022	14820	29,640	30	14820	494
May	1/05/2022	1/06/2022	29,640	44,400	31	14760	492
Jun	1/06/2022	1/07/2022	44,400	61,560	30	17160	572
Jul	1/07/2022	1/08/2022	61,560	75,960	31	14400	480
Aug	1/08/2022	1/09/2022	75,960	87,315	31	11355	378.5
Sep	1/09/2022	1/10/2022	87,315	98,400	30	11085	369.5
Oct	1/10/2022	1/11/2022	98,400	108,615	31	10215	340.5
Nov	1/11/2022	1/12/2022	108,615	117,465	30	8850	295
Dec	1/12/2022	1/01/2023	117,465	129,345	31	11880	396
Jan	1/01/2023	1/02/2023	129,345	141,375	31	12030	401
Feb	1/02/2023	1/03/2023	141,375	152,565	28	11190	373
Mar	1/03/2023	1/04/2023	152,565	166,500	31	13935	464.5

PRINCIPAL
PERILLANT INSTITUTE OF
ENGINEERING AND TECHNOLOGY
 Hyderabad-500008
 (Ph: 08000050000)

Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tollychowk, Kolkata-700016)
 e-mail: info@markcertification.com, url: www.markcertification.com

AUDIT CERTIFICATE

PRESENTED TO

Brilliant Institute of Engineering & Technology

Hyderabad, Telangana.

Has been assess by MQCIUL for the comprehensive study of environmental impacts on institutional working framework to full the requirements of

ENERGY AUDIT

The green initiatives carried out by the institution have been verified on the report submitted and was found to be satisfactory

The efforts taken by the management and the faculty towards environment and sustainability are appreciated and noteworthy

Auditor Signature

Date of Audit: 19.06.2024.



Amil



MARK CERTIFICATION CONSULTANTS, 8-1-402/A/5/2, TOLICHOWKI, HYDERABAD -500008, TELANGANA, INDIA.

Website: WWW.MARKCERTIFICATION.COM.

Email: INFO@MARKCERTIFICATION.COM

Registered Office: (8-1-402/A/5/2, Mini Gulshan Colony, Tolichowki, Hyderabad -500008)

e-mail: info@markcertification.com, url: www.markcertification.com

Amil
 PRINCIPAL
 BRILLIANT INSTITUTE OF
 ENGINEERING AND TECHNOLOGY
 J. & M. Rd. Abdulsalam - R.R. Dist-501505.
 Hyderabad - 500008