Green Audit Report of PRIST Deemed University

(Ponnaiyah Ramajayam Institute of Science and Technology)

Results and Recommendations

2021-2022

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STRATEGIC SUSTAINABILITY CONSULTING

Section 1. Table of Contents

Section 1. Table of Contents 1
PRIST'S Vision & Mission 2
VISION 2
MISSION 2
About PRIST 2
PRIST'S "Green State" 3
Feedback from PRIST Employees 3
Survey Comments 4
PRIST Carbon Footprint 5
Specification about this Study: 5
Per Capita Carbon Foot-print: 6
Carbon Neutralization through plants 6
Section 2. Eco-Recommendations 7
Establishing Your Green Team 8
Increased Plantation 8
Environmental Purchasing (esp. Paper) 10
Green IT 11
Marketing and Collateral 12
Energy 12
Waste and Recycling 13
Transportation - Commuting 14
Air Travel 15
Communicating with Your Stakeholders 16
Section 3. Appendix A – Information about the Carbon Footprint 17
Footprint Calculations Are Based on Three Assumptions 17
Data Sources 17
Limitations 17
Carbon Offsetting 18

PRIST'S Vision & Mission

VISION

To be a globally recognized Institution for its excellence of academic programmes in Engineering & Technology, for its high quality teaching across a wide range of disciplines and for its community service in making quality education to reach wider apex to industrial Scenario of technical education to reach wider community.

MISSION

- To dedicate to the communication, expansion and integration of knowledge through excellent undergraduate and post graduate level academic programmes.
- To achieve excellence in teaching and learning.
- To offer quality technical education opportunities which are accessible, flexible and border-less.
- To enable empowerment through knowledge and information.
- To have Innovative academic approach that promotes original inquiry, innovation and collaboration.
- To be a major contributor to our Nation's Technology base.
- To inculcate entrepreneurial talents through technology transfer and incubation.
- To impart news skills of technology development.
- To develop Engineering graduates with ethical and moral values who may be positioned to meet the challenges of a rapidly changing world.
- To aspire to contribute to our Nation's economic growth, social development and sustainability

About PRIST

PRIST Deemed University, approved by UGC and NAAC, is located in a lush clean and green atmosphere, away from the hassle and tussle of the city, about 11kms from Thanjavur city. The college is easily reachable from the nearest airport (i.e.) Tiruchirappalli airport and Thanjavur railway station. The campus is accessible by road from Thanjavur, Trichy, Pudukkottai and adjacent districts. The college offers programs in UG, PG as well as doctoral research in various field, namely, arts & science, commerce & business, engineering &

technology, agriculture, architecture, law, and so forth, with satellite campuses at Puducherry, Chennai and Madurai.

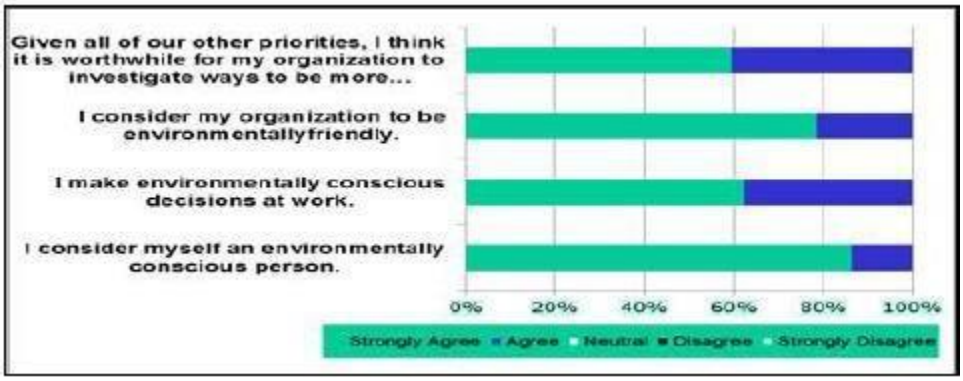
PRIST'S "Green State"

The following table summarizes findings based on the data collected during the audit. It is intended to provide a high-level reflection back to PRIST on the "state of green" at the organization.

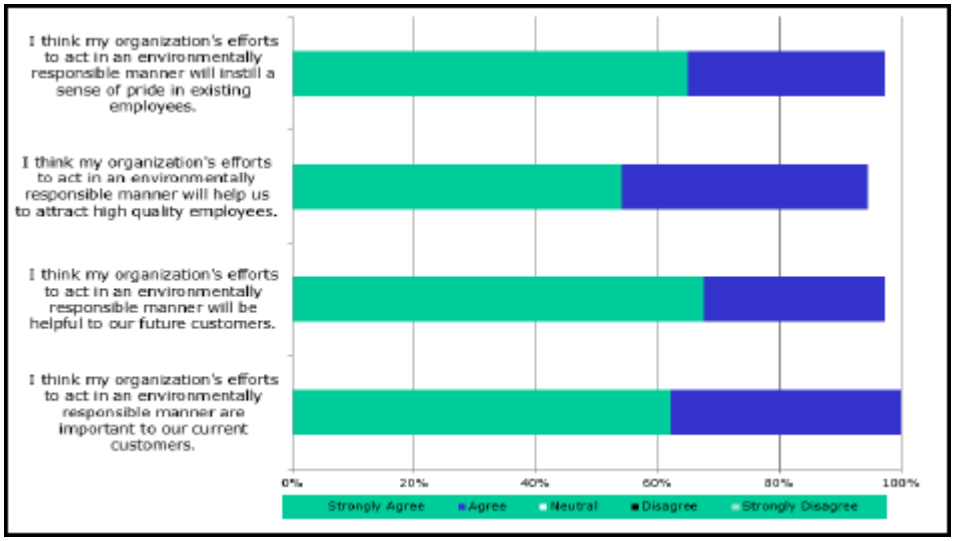
Internal	External
Strengths ♦ Well maintained greeneries in campus ♦ Buildings-sufficiently precious ♦ Augmented energy through solar & biomass ♦ Regular Maintenance of campus by Gardeners	Opportunities ♦ Creating a students' body on green monitoring and awareness ♦ Scope for increasing the effort for composting with huge litters generated
Weaknesses ♦ Inadequate use of Solar Energy ♦ No segregation of solid waste ♦ No dedicated STP (Sewage Treatment Plant)	Threats ♦ Infrastructure maintenance ♦ Students' motivation ♦ Governmental Support & subsidy

Feedback from PRIST Employees

GREEN AUDITING conducted an employee survey in [April, 2022] to get a baseline understanding of how PRIST'S employees felt about the organization's greening initiative.

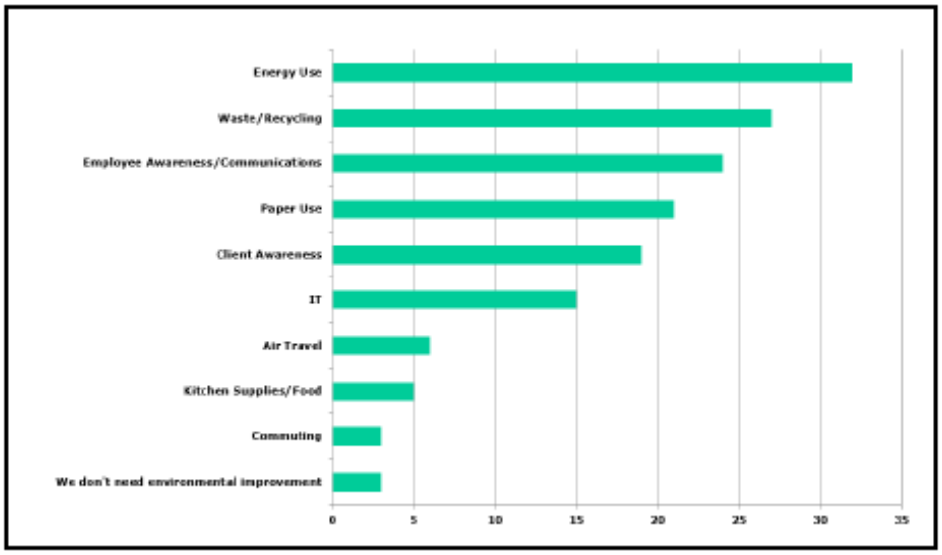


When asked to identify their top choices for PRIST'S environmental initiatives, employees said:



Survey Comments

The survey also asked employees to suggest ways they would like to see the office become more environmentally friendly. Their answers are below:



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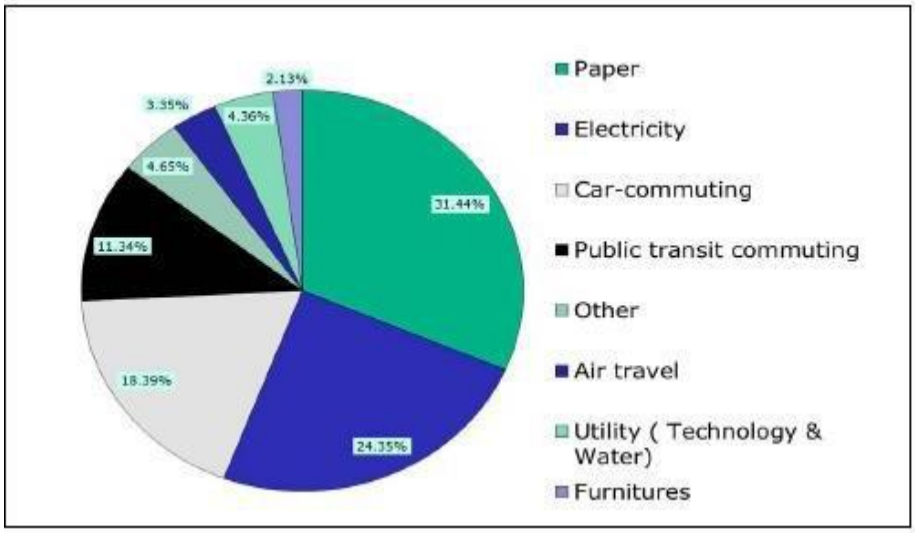
sults in mind, GREEN AUDITING focused its analysis and recommendations on ways to make the "greening" process easy, self-explanatory, and cost efficient. Specifically, we have looked to ways that PRIST can create processes and systems that—once set up—require little extra effort on the part of individual employees.

PRIST Carbon Footprint

Gathering data from the employee survey and from the facility, GREEN AUDITING calculated a carbon footprint for the organization. Based on the available information (and using national averages for unavailable data such as utilities use), we found that the organization has an annual carbon footprint of approximately [1,267.5] tons of carbon emissions. This footprint is broken down into the following major categories: Car Commuting, Public Transit Commuting, Local Business Travel, Air Travel, Utilities, Waste, Paper, and "Other"—as indicated below.



Specification about this Study:

1. The survey was conducted only for Teaching Staffs, using representative samples.

2. The travel distance calculated (from Feb 2021 to March 2022) based on the information obtained from Purchase Department and the details of travel re-imbursement has not been included.

3. International travels for conferences, local travel by taxi is not included (except the travel to airport/station, both to and fro), nor is the stay in hotel included.

4. Power consumption is calculated based on electric bill paid and the genset power is included with the grid power, without segregation.

5. The information about travel in bike, number of tea/coffee per week and also cost of washing cloth for official purposes have been taken from employees.

6. Waste generated has been used based on National average1

7. Equipment in the lab have not included, nor any of the appliances utilized in Institute and Laboratories.

8. The cleaning liquids used are calculated based on average US data i.e., 1 gallon/25 person /month.

Per Capita Carbon Foot-print:

It was observed that the carbon foot-print 5.74 tons per employee(staff) per year, which is much higher than average carbon footprint of India, i.e., 1.7 (Refer to: Carbon Dioxide Information Analysis Center, Environmental Sciences Division, Oak Ridge National Laboratory, Tennessee,United States). However, this result is higher than the carbon footprint of institutions of similar scale and activities institute, say, 5,15 per staff per year for King Mongkut's University of Technology Thonburi, Bangkok, Thailand, 4.9 perstaff per year for Norwegian University of Technology and Science, 2.28 for Kasetsart University, 2.2 for De Montfort University, and so forth. (Ref. Int. Conf. on Sust. Energy & Envt., 19-21 Nov. 2014, Bangkok)

Carbon Neutralization through plants :

The campus was studied with regard to the plants and the list of the large plants is provided below:

Trees Name

S.No	Name of Trees	Total
1.	Caesalpinia pulcherrima	51
2.	Cassia fistula	20
3.	Azadirachata indica (Neam)	671
4.	Prunus dulcis (Almond Badam)	140
5.	Bauhinia purpurea	70
6.	Tectona grandis (Teak)	1121
7.	Millingtonia hortensis	10
8.	Leucaena leucocephala	260
9.	Pongamia pinnata (pongai tree)	366
10.	Delonix regia	326
11.	Spathodea campanulata	33
12.	Palmyra trees	170
13.	Syzygium jambolanum (Black berry)	26
14.	Portia	43
15.	Ficus religiosa or sacred fig	06
16.	Albizia samam	126
17.	Terminalia arjuna	06
18.	Acacia catechu	63
19.	Caesalpiniaceae	34
20.	Casuarinas	150
21.	Tamarind	04
22.	Coconut	506
23	Eucalyptus	15
24.	Mango	18
25.	Redsandel	10
26.	Banana	80
27.	Unknown trees	133
	Total	4458

Since, one large tree (on average) can remove 26 pounds of CO2. Hence, total number of trees required to neutralize all the carbon dioxide emission is about 107433(=2793256.86188/26). This is higher by 102975 to the existing trees. So, we need at least 24 times more trees to offset the carbon to bring to neutrality. This is not possible even if all the land area of the campus used for planting. Hence, although more planting is recommended, yet, change in usage pattern is indispensable to bring out carbon neutrality. And for this, the three primary carbon drivers of this campus must be addressed, namely, paper, electricity and car-commuting.

Section 2. Eco-Recommendations

Based on the employee survey, the carbon footprint, and the audit findings, GREEN AUDITING recommends that PRIST investigate the following eco-options over the next six months.

Establishing Your Green Team

Formalize your "green team". The key to implementing long-term change is to embed it in the organization's culture. By creating a "green team" that is responsible for researching green options and is empowered to implement new initiatives, PRIST can integrate environmental responsibility into the core routines of day-to-day operations.

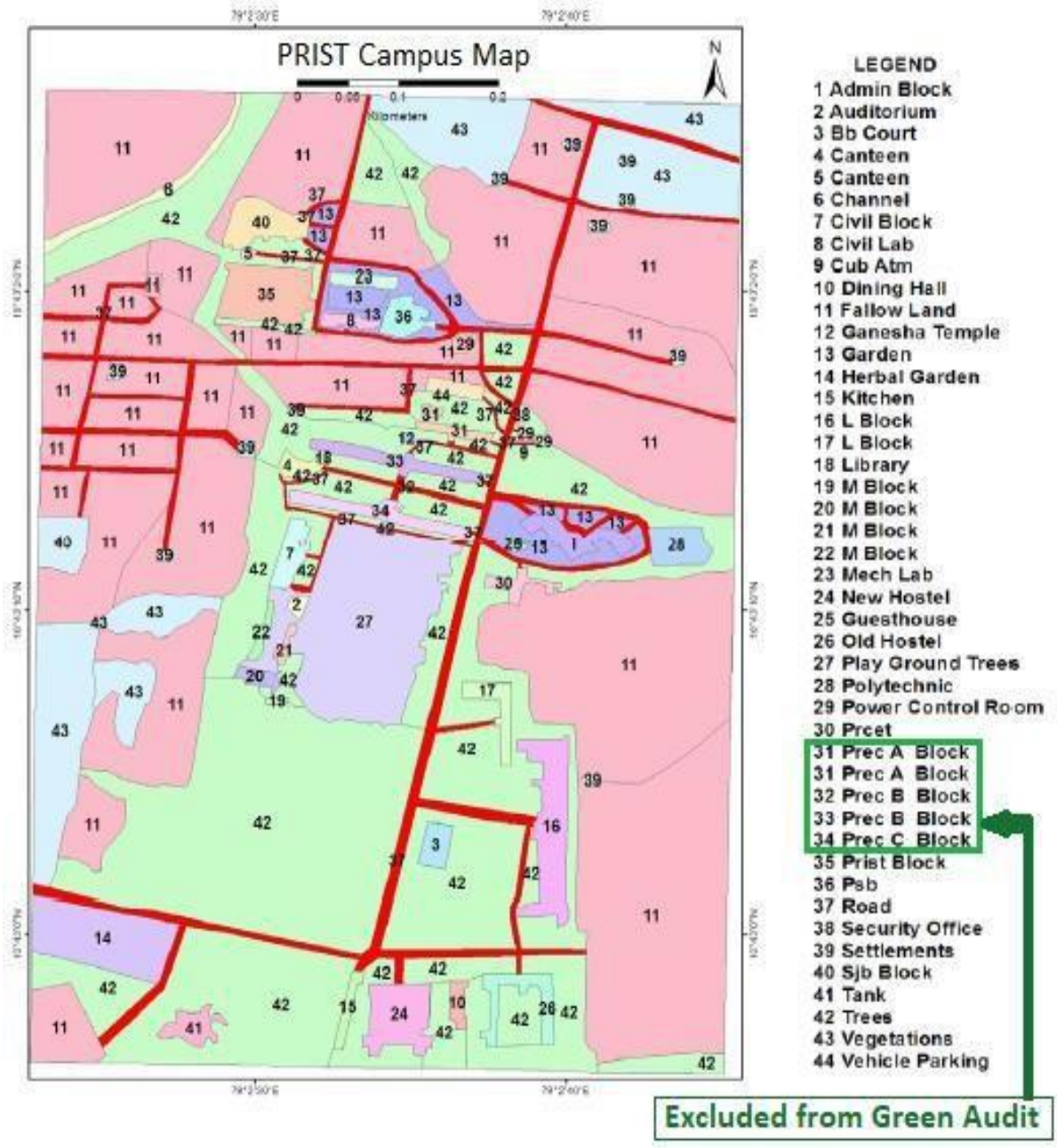
Membership: the green team should be led by a single person (or co-chaired) so that responsibility and assignments can be clearly delegated. For PRIST, a co-chaired team led by [name specific people/positions], with membership from other employees on a self-selected basis, seems the best option.

Structure of meetings: the green team should meet separately on a monthly basis to discuss greening options, review work done by individual members, and to determine appropriate timelines and targets. In addition, at the [weekly/bi-weekly]] staff meeting, the green team should be given 10-15 minutes each week to present findings and make suggestions, so that all PRIST employees can give feedback and participate in the process.

Create a working "green team strategy" document that shows the topics under current consideration, the personnel assigned to research the options, the decisions that are made, and the location of any supporting materials. This document functions as an "at a glance" summary of the organization's green efforts, and helps ensure that all employees are on the same page in terms of priorities and goals.

Increased Plantation

The campus lay out is presented below, which shows almost 50% of the campus is covered by trees (green) and vegetation (sky-blue), yet there is more than 35% of the land, which are fallow(pink). These can be attempted for planting the trees.


PRIST Campus Map
N
LEGEND
1 Admin Block
2 Auditorium
3 Bb Court
4 Canteen
5 Canteen
6 Channel
7 Civil Block
8 Civil Lab
9 Cub Atm
10 Dining Hall
11 Fallow Land
12 Ganesha Temple
13 Garden
14 Herbal Garden
15 Kitchen
16 L Block
17 L Block
18 Library
19 M Block
20 M Block
21 M Block
22 M Block
23 Mech Lab
24 New Hostel
25 Guesthouse
26 Old Hostel
27 Play Ground Trees
28 Polytechnic
29 Power Control Room
30 Prcet
31 Prec A Block
31 Prec A Block
32 Prec B Block
33 Prec B Block
34 Prec C Block
35 Prist Block
36 Psb
37 Road
38 Security Office
39 Settlements
40 Sjb Block
41 Tank
42 Trees
43 Vegetations
44 Vehicle Parking
Excluded from Green Audit

Environmental Purchasing (esp. Paper)

Switch to 100% post-consumer recycled paper. Switch to 100% post-consumer recycled paper. At the current usage, making this switch would save tons of carbon every year, as well as eliminate solid waste and wastewater. The table below provides more information on the environmental impacts of each option.[1] [Note: 1 ream of paper = 5 pounds.]

	Current Paper (4.8% recycled)	100% PCW Recycled
Quantity	2400 pounds/year	2400 pounds/year
Postconsumer Recycled Content	0%	100%
Wood Use	4 tons	0 tons
Total Energy	46 million BTU's	26 million BTU's
Purchased Energy	22 million BTU's	26 million BTU's
Sulfur dioxide (SO_2)	31 pounds	31 pounds
Greenhouse Gases	6,828 lbs CO_2 equiv.	4,299 lbs CO_2 equiv.
Nitrogen oxides (NOx)	22 pounds	17 pounds
Particulates	15 pounds	9 pounds
Volatile Organic Compounds (VOCs)	7 pounds	2 pounds
Wastewater	22,890 gallons	12,390 gallons
Biochemical Oxygen Demand (BOD)	8 pounds	7 pounds
Total Suspended Solids (TSS)	12 pounds	8 pounds
Chemical Oxygen Demand (COD)	110 pounds	33 pounds
Adsorbable organic halogens (AOX)	1 pounds	0 pounds
Solid Waste	2,734 pounds	1,386 pounds

Check out "A Resource Guide for Environmentally Preferable Products[1]" for an overview of what "green" purchasing means, and criteria for dozens of basic supplies. And consider switching over to The Green Office.com for office purchasing. TheGreenOffice.com acts like an eco-friendly Staples, with products ranked by their environmental attributes (and at a cost-competitive price).

Invest in cutlery and dishware for the kitchen. Remove all disposable kitchenware and insist that employees and guests use the permanent dishes/mugs and utensils—including cups for water. Make it a policy to run the dishwasher regularly so that clean dishes are always available. Make sure you are using eco-friendly detergent!

1 http://www.resourcesaver.org/file/toolmanager/CustomO16C45F77360.pdf

Green IT

See the GREEN AUDITING white paper on Green IT, and check out the following resources (pass them along to your IT people!):

- EPEAT - www.epeat.net - EPEAT is a system to help purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes.
- Greener Computing - www.greenercomputing.com – also has a bi-weekly e-newsletter
- InfoWorld Sustainable IT - http://weblog.infoworld.com/sustainableit/ - also has a bi-weekly e-newsletter

Find a local organization that will recycle your IT waste (computers, printers, faxes, cell phones, etc.) in a responsible way. There are three general options (after giving away components to employees for their personal use):

Contact hardware vendors responsible for recycling and disposal. For example, both Sun Microsystems and Microsoft sponsor active recycling and reuse programs designed to keep electronics out of the waste stream. At Sun, customers can participate in the company's hardware upgrade program, where they can return end-of-life equipment at no cost. Sun then ships the equipment to a third-party vendor, which dismantles the equipment and returns any useful parts to Sun. (In 2008, most major hardware vendors have some sort of take-back program, and many will pay for shipping at no cost to you.)

Some big box retailers (such as Best Buy) have instituted IT drop-off centers—contact your local store to ask about any programs (and about the cost). Programs vary by location. Or, work with a local e-waste recycler, who will arrange to pick up old equipment.

Remind employees to turn off their computers at night, if they don't need remote access (everyone can at least turn off their monitors). If gentle reminders don't work, consider network-based power management software.

The US Energy Star program offers technical assistance for IT Administrators, through its Low Carbon IT Campaign.[2] Joining the campaign is free, and includes:

- Free technical expertise and assistance to help you determine the best way to activate power management features in your IT environment.
- An estimate of your organizations' energy and carbon savings, which you can apply towards your carbon reduction goals.

[2] www.energystar.gov/index.cfm?c=power_mgt.pr_power_mgt_low_carbon

- An official certificate of recognition from EPA acknowledging your efforts on behalf of energy efficiency and the environment.
- Possible national recognition from EPA for outstanding Campaign participants via mentions in national news stories, online case studies, and professional journals.
- Template materials to publicize your efforts through newsletters, press releases, and on your website.

Marketing and Collateral

Move to electronic collateral and reduce print runs. [Insert something about how the PRIST currently uses printed materials and how they might switch to fewer pages and/or digital communications.]

Choose an eco-friendly printer – as your current agreements expire, start looking for a printer that offers some of the following printing options. Check Greener Printer[3] for cost comparisons—going "green" should be fairly cost-competitive.

- FSC-certified paper
- Recycled materials
- Soy- or vegetable-based inks
- Wind powered operations
- Carbon neutral shipping

Examine event collateral carefully against eco-impacts. For example, check out Green Banners[4] for eco-friendly alternatives to vinyl banners. And check out sites like Boundless Network[5] and Eco Branders[6] for "green swag" to replace plastic cups currently distributed at PRIST events.

Energy

Turn off and unplug appliances/equipment when not in use. This is particularly applicable to kitchen appliances and rarely-used computer peripherals (like a scanner or fax machine). Consider also investing in "smart" power strips, that will "turn off" power to computer peripherals when it sees that a computer is powering down.

Phantom loads are appliances that use power all the time, even if they are turned off. These loads are most often found in electronics, and anything that has automatic-start, etc. Common culprits are anything with a clock in it, such as a VCR, alarm clock, TV, microwave, etc. But it is not limited to that--

[3] www.greenerprinter.com
[4] www.greenbanners.com
[5] www.boundlessnetwork.com/green/
[6] www.ecobranders.com

computers, business machines like fax machines, copiers, scanners, printers, and debit machines all draw constant power.

Anything that has a wall cube transformer is drawing a phantom load. Touch the black box; they generally are warm. That warmth is wasted electricity. Some power cubes use the same amount of power even if they are not plugged into the appliance, but still plugged into the wall!

Check out the following sites for energy conservation posters: http://www.awarenessideas.com/Energy-Conservation-Posters-s/9.htm

Have your building conduct a free energy audit – Energy STAR for Small Business has a free calculator that allows you to estimate your facility's energy intensity and the potential energy and cost savings you could realize by implementing energy efficiency upgrades. It is an estimating tool only. As with any computer analysis, the accuracy of the results depends on the accuracy and thoroughness of the data that is entered. [Note: you may need to work with other tenants in the building for an accurate measurement.]

Waste and Recycling

Improve your recycling rates, with the following changes:

- Make sure that EVERY room has a paper recycling "blue bin". During GREEN AUDITING's walk-through, we noticed that several offices and common rooms didn't have a recycling option.
- Put up a sign/poster in the kitchen near the non-paper recycling bin to educate employees on what types of recyclables are allowed in your county. Send an email to all employees with a summary of commonly asked questions: e.g. "can I recycle my yogurt cup?".
- Investigate the possibility of using Abitibi to collect your paper waste through the Paper Retriever® Community Recycling Program[7]. Bright green and yellow containers - called Abitibi Paper Retrievers® - are placed in highly visible, convenient areas where residents/offices can drop off their newspaper, magazines, shopping catalogs and mail. Usually, the majority of the paper is received from the surrounding neighborhoods. Even areas that already provide curbside recycling are successful in raising money by providing a convenient place to drop off paper when families know that your organization will benefit from their donation.

- Paper is weighed by a scale on the collection truck. A monthly statement detailing the weight of paper collected for that month is accompanied by a check for the amount collected. In addition, Abitibi-

[7] www.paperretriever.com

Consolidated Recycling Division offers frequent contests and promotions to provide additional cash incentives.[8]

Check out the following posters on waste and recycling:

- http://www.project-yes.org/prod.posters.html
- http://www.ciwmb.ca.gov/BIZWASTE/Posters/Paper.htm

Transportation - Commuting

Formalize current "policies" surrounding who can work from places other than the office (and when)—such as when site visits to projects are happening in the middle of the day. Be sure to include requirements for availability (does the person need to have access to the internet/email, or will a cell phone suffice) as well as how/when offsite personnel need to report back to the office. Even though you may think this is redundant and/or treating employees like children, having something on paper that everyone can agree to will save time and trouble in the end!

Investigate flex time & compressed scheduling options. Would it work if people worked nine 9-hour days and then took every other Saturday off? (Some offices do this only in the summer.) What if people came in early/late to avoid rush hour traffic? Can people set their own schedules on an as-needed basis, or is it important to have a routine that people can rely on? Research the options and present recommendations at a staff meeting. Remember: the "green" goal is to reduce the number of commuting miles and the time spent idling in traffic. If everyone in the office worked a 9-on-1-off schedule, you could reduce your car commuting emissions by 10%.

Research tele commuting options. A clear policy on telecommuting should beestablished, designed with flexibility that allows each employee/supervisor to work out a suitable arrangement. For example:

Employees wishing to be considered for working by telecommuting must apply for such consideration. The request may be granted or denied. If granted, the supervisor and the employee will work out the arrangement. Such arrangement must be set forth in writing and signed by both the employee and the supervisor. The arrangement must at a minimum cover the following:

[8] Recovered paper is directed to processing centers where it is sorted into various grades and prepared for shipment. It is then routed to de-inking facilities and mills where it is used to manufacture recycled content newsprint. By diverting this paper from the waste stream, Abitibi estimates that over 2.2 million cubic yards of landfill space is saved each year. In addition, by eliminating groundwood and kraft pulping operations at certain newsprint mills, Abitibi-Consolidated reduced air emissions and wastewater discharges.

- The duties that will be performed away from the office
- How deadlines will be handled
- Hours to be worked
- How hours worked will be recorded
- If overtime is to be handled any differently than in the office, how it will be handled
- The amount of notice to be given of any change in the arrangement
- How much time the employee should spend in the office and when the employee should report back to the office
- How the employee and the organization will be able to contact each other during the workday
- Any changes in workplace policies that may be necessary due to The telecommuting arrangement
- The employee's understanding and agreement that the telecommuting arrangement is at the will of the organization and may be altered or terminated at any time

Check out Commuter Choices - www.commuterchoices.com - This website has a plethora of ideas and resources. The Federal Highway Administration has developed a "Guide to Implementing Effective Commuter Choice Programs", and offers information and tools to help employers reduce costs, keep good employees, and showcase their company.

Air Travel

First, choose to use cars and trains whenever possible—and try to use airplanes for travel only when the distance exceeds 300 miles. And make it a priority to choose direct flights whenever possible. The carbon differences are dramatic![9]

Choose airlines with newer carriers. New airplanes are more efficient that older models, and although your carbon footprint won't be detailed enough to calculate the variance you will be making a different in your overall carbon emissions. Virgin America is one carrier that is using new, more eco-efficient planes.

Prioritize local events. When given an option of training locations opt for local (or closer-to-home) choices. Compare the following:

[9] Also note that because a car's fuel efficiency does not change dramatically when another passenger is added, you can estimate that any additional riders are "carbon neutral"!

Communicating with Your Stakeholders

Many of the benefits of environmental sustainability happen simply by taking steps to minimize your eco-footprint. Others—like improved eco-impact at project sites, enhanced reputation in the community, and better responsiveness from partners and allies—happen only when people know about your commitment. For that reason, it's important to consider ways to reach out and "green" PRIST'S projects:

- Share your commitment – in order to "brand" the PRIST as a green organization, GREEN AUDITING recommends that PRIST publicly announce its environmental commitment in the following ways.
- "Our Green Commitment" piece on the PRIST website – a simple area that provides a policy statement, a brief discussion of actions taken to date, and a summary of the results of those actions (number of trees saved, tons of carbon offset, etc.). This can be coordinated by the PRIST Green Team.
- "Our Green Commitment" section for all project proposals and grant applications – a 2-3 paragraph summary of the website information can be included on the standard proposal template.

Remember that "green" on its own may not be enough to consider people to change their behavior—so try to link it to health (e.g. recycling batteries keeps toxic chemicals out of the landfill) or cost savings (e.g. lower energy and water bills) whenever possible. And start with the kids!

Most people need to see something seven times before they "get it", so be prepared to reach out to them in multiple ways at multiple times. For example, distribute flyers, go door-to-door, do a show-and-tell at the local school, throw an eco-block-party, tie green into their current education, offer public workshops, etc. Be sure to note what is most successful at each site, so you can gradually focus your efforts on only the most rewarding initiatives.

Section 3. Appendix A - Information about the Carbon Footprint

The GREEN AUDITING Green Audit methodology uses a carbon calculator developed over a series of years by the people at Redefining Progress—the nation's preeminent ecological footprint experts—in association with TheGreenOffice.com. Unlike other carbon calculators on the market, this calculator seeks to measure ALL impacts associated with running office operations—from utility use (electricity, natural gas, water use) to travel (commuting and business travel by car and by air), waste (both generated and recycled) and other miscellaneous categories (hotel stays, dry cleaning, office furniture, and IT equipment) that most other calculators simply ignore. The result is a complete picture of your office's environmental impacts - one that allows you to see the biggest impacts and prioritize your efforts to "go green."

Footprint Calculations Are Based on Three Assumptions:

- It is possible to keep track of most of the resources people consume and many of the wastes offices generate.
- Most of these resource and waste flows can be converted into quantitative measures such as biological productivity equivalents and carbon emissions factors.
- Using a series of calculations and extrapolations, an office can reasonably determine its annual carbon footprint.

Data Sources

Our carbon calculator is primarily based on data published by United Nations agencies and the Intergovernmental Panel on Climate Change. Averages for US office resource consumption are derived using datasets provided by the US Department of Transportation, US Department of Energy, Lawrence Berkeley Laboratory, Oak Ridge National Laboratory, and other industry groups such as Special Coffee Association of America. This information is updated on an annual basis to ensure that the most up-to-date carbon factors are being used.

Limitations

This carbon calculator represents our current best understanding of the intricate balance and interactions of the Earth's various geological and ecological systems, but it is by no means complete. As technologies improve with regards to their environmental impact, so too will our tools for more accurately

assessing those impacts. The current degree of accuracy of our calculations is the best in the industry and will only get better.

Footprint and carbon liability assessments are only as good as the data used to calculate them. For this reason, it is imperative that users gather information in an accurate and PRISTise manner. For each question within the carbon calculator, the auditor has the option to use U.S. national averages when exact data is unavailable. While we recommend using exact figures, the averages are provided for guidance or when a piece of information simply cannot be found.

Carbon Offsetting

Carbon offsetting is a relatively new concept for most people and, as such, has generated a good amount of debate. While simple at first glance, the market mechanisms supporting the generation and sale of offsets, as well as the way in which this activity results in actual emission reductions, is somewhat complicated. For this reason, initial skepticism is justified. Yet those committed to understanding the underlying principles will find that carbon offsetting is an effective, concrete way to combat global climate change.

At Strategic Sustainability Consulting, we recommend offsetting through TheGreenOffice.com. In addition to providing a thorough and easy-to-understand explanation of carbon offsetting and the pros/cons of the approach, TheGreenOffice.com also provides the highest quality offsets that ensure you are mitigating your carbon emissions in a way that meets international best practices – a claim that very few offset providers can make. For more information, please go to www.thegreenoffice.com/carbon.

PRIST DEEMED UNIVERSITY VALLAM THANJAVUR

WEST CAMPUS

2021-22

ENERGY AUDIT

April

2022

We have pleasure to submit herewith report of Energy Audit conducted during Feb'2022 to March 2022 at PRIST Deemed University, Westcampus, Vallam, Thanjavur, for energy performance assessment of electrical system, electrical equipments and utility system focusing the energy saving opportunities and power quality. Various parameters were collected using appropriate instruments and apparatus. The systematic and comprehensive performance assessment is made for identifying area of energy saving opportunities and improvement. The suggestions and recommendations given in report, efforts on implementation of energy saving measures with marginal investment and there by achieving energy efficient ystem.

PRIST DEEMED UNIVERSITY, VALLAM THANJAVUR.

Er.S. Kannan,
BEE Certified Energy Auditor,
EA 32877, CMVP AEE ID 6478,
ISO 50001, CFR SQTC.

Sl.No	Table of contents	Pg.No
1.	Acknowledgement	1
2.	University Data	2
3.	Scope of study	4
4.	Executive summary of savings	6
5.	Proposal for Energy saving opportunities	7
6.	Energy savings-Other simple operational recommendations	10
	I. Computer systems	10
	II. Lighting system	13
	III. HVAC	28
	IV. UPS systems	33
	V. Motors	37
	VI. Electrical system	38
	VII. Analyzing the energy usage pattern	41
	VIII. Diesel Generators	43
	IX. Consumption comparison on Implementation of Energy saving proposal.	43
	X. General.	45
7.	List of Annexures.	46
8.	Contacts for service providers for implementation.	47

ACKNOWLEDGEMENT

At the outset, we are thankful to the management of M/S. PRIST Deemed University, Vallam, Thanjavur for giving us this opportunity to contribute in their endeavor forefficient energy management.We are also thankful to the technical staff for coordination and co-operation given to us during the energy audit. Our special thanks to Hon'ble Chancellor, PRIST Deemed University, and all higher officials and staffs for their un-relented support provided during Audit. Also the General administration deserves a mention, for providing excellent support during our period of auditing work in the premises.

2. UNIVERSITY DATA

1. Name of the Consumer	: M/S.PRIST Deemed University, West campus, Vallam, Thanjavur-613403.
2. Address	: M/S.PRIST Deemed University, West campus, Vallam, Thanjavur.
3. Phone No.	04362265021.
4. Email address	:contact@prist.ac.in
5. Contract Demand	:325 kVA
6. Connected Load	: Non power −160 kW Power - 710 kW
7. Purpose of Consumer	:Education
8. Consumer/Service No.	:069094440090
9. Name of Supplier's office	:TAMILNADU ELECTRICITY BOARD,THANJAVUR.
10. Period of Audit	:Feb' 2022-Mar'2022.
11. Report Submission	: April 2022
12. EnergyBill[March 2021- Feb 2022]	:Rs.35,45,362[Electrical] Rs.9.4 lakhs[Diesel-fuel]

13. Energy users-major perannum :

Computer systems	-1,88,800kWhrs*.

14. Energy Savings proposed

Instant payback negligibleinvestment]	-Rs.3,60,450/-
Shorter payback Less than 36 months[minor investment]	-Rs.71859/-.

16. Savings as percentage of Energy cost =36.9 %.

Instant payback [negligible investment]	=20.52 %
Shorter payback Less than 24 months [minor investment]	= 16.38 %

*Assumed

3.SCOPE OF STUDY

The Energy Audit undertook and covered the following

I. ***ELECTRICAL***

1.	***Electricalsystems***	**:**Survey of total Electrical network system Withlines, cables, switchgears etc. Having studied and analyzed the system regarding the energy saving potential, powerqualityand standards. The distribution network is covering are area and supply is fed from TNEB HT supply.
2.	***LightingSystem***	**:**The lighting system has important attention. Measurement of Illumination [lux] levels arrangement and type of fittings are studied for better and efficient way of utilisation.
3.	***Fans***	**:** Systems has been studied for Energy Saving measures.
4.	***ElectricalEquipments AndMachineries***	**:** Having studied for loading and performance.
5.	***Motors***	: Study of motor loading and efficiency.

II. ***HVAC***

1. ***Split&WindowAC*** **:** Studied the electrical performance And maintenance.

III. ***BILLING*** :Study of consumption and demand Pattern.

IV. ***GENERAL*** **:** Focusing on background of college activities. Major Energy consuming areas.

Energyconservation

By better maintenance and efficient way of utilization.

With a view of Saving Energy by simple measures.

Assessing awareness of employees on EnergyCosts.

4. EXECUTIVE SUMMARY OF SAVINGS

Sl. No	Energy Saving Proposal	AnnualSavings			Total	Invest .Rs.	Payback months
		KWhrs	Rs	KVA	Rs.		
WithoutInvestment							
I	**Computer systems**						
1	By Setting sleeping andstandbymode	30898	123392	0	123,392	Nil	Nil
II	**HVAC**						
1	Switch OFF stabiliser whenACnot in use	2430	9720	12	9,720	Nil	Nil
III	**UPS Systems**						Nil
1	Switched OFF the UPS when idle period (after the office hrs)	30000	120000	200	180,000	Nil	Nil
2	De-rating of UPS for optimizing Loading	9000	36000	60	54,000	Nil	Nil
IV	Contract demand reduction			**75**	**360450**	Nil	Nil
	Total	**72328**	**289112**	**347**	**727562**	**Nil**	**Nil**
Minor Investment (within3 years)							
I	**Lightings&f ans**						
1	Replacement of 40W lamp with energy efficiency lamps 36W	17349	69396	90	96,396	103500	12
2	Replacement of 40W lamp with energy efficiency lamps 28W	27622	110488	192	168,088	465750	33
3	Provision of Energy saving devices	13943	55772	136	96,572	250,000	31
II	**HVAC**						
1	Provision of Energy saving devices	18360	73040	250	148,040	370,000	30
III	**Electricalsystem**						
1	Improvement of Powerfactor by providing APFC panel	20218	80872	50	71859	1,50,000	24
	Total	**97,492**	**3,89,568**	**718**	**5,80,955**	**13,39,250**	

5. PROPOSAL FOR ENERGY SAVING OPPORTUNITIES:

I. *Computer systems:*

- By setting the monitor sleeping mode timings to the minimum possible which gives energy saving about 12748 kWhr peryear and also the life of the monitor will be enhanced.

- By setting the CPU hard disc sleeping mode and stand by mode timings to the possible minimum which gives energy saving about 17450 kWhr per year and also the life of CPU will be enhanced.

- Because of these settings, the temperature of the room will be reduced and also AC loading will also be reduced if it is in use.

II. *Lightingsystems:*

- Replacing the existing ordinary 40W florescent tubes with energy efficient FTL special 28W florescent tubes with electronics ball as the reduction is 25W per lamp.

- Re-arranging the existing mounting on side walls to ceiling downwards to improve the utilization factor by1.5 times.

- Replacing the existing conventional chokes in Sodium/MHD fittings by Energy efficient electronics choke with dimmer, which will give around 20% of energy saving.

- Providing energy saving devices also the power can be saved in the lighting circuit around 15% by voltage optimization.

III. *FANS:*

- Almost all the rooms and halls are provided with fans, but the usage duration differs. During day time fans are used at the lecture halls but lights are not used since day light. So the annual consumption for fans is assessed as 1,04,461 kWhrs for connected Fan load as 95.06 kW. Fan speed is not controlled and are running maximum speed. Energy is wasted in this way. Controlling the voltage at distribution panel it self the speed can be reduced to required speed and some amount of energy can be saved.

IV. HVAC:

Window & Split AC:

- The wastage of power can be reduced by periodical maintenance like filter, blower and cooling coil cleaning.
- The wastage of power can be reduced by selecting the required capacity as per design standard.
- The energy saving can be achieved about 15% by providing energy saving devices.

V. UPS Systems:

- Some of the UPS systems are having poor efficiency, poor power factor and higher percentage of current harmonics and replacing with high efficiency UPS then the energy can be saved but the replacement involves higher investment.
- Also, further energy can be saved about 30,000 kWhrs per annum by switching OFF UPS systems during non operational hrs.
- Maximum capacity of the UPS can be utilised to get maximum efficiency and no. of UPS can be reduced and there by losses can be reduced.

VI. Motors:-

a) Replacement of conventional motors with Energy efficient motors:-

- Generally the efficiency of the standard motors is poor & losses are more.
- But the Energy efficient motors are having higher efficiency than standard motors.
- Whenever the change of motors involves these motors may be replaced by energy efficient motors due to economic reasons.

VII. *Electricalsystem:*

- Analyzing the power quality of the Electrical system, the power factor and harmonics are varied from the marginal level and causes increase in current loads, line losses and heating in contacts, switch gears and lines.

- The power factor can be improved by providing capacitors at appropriate locations.

- Since, there are varying loads, the Automatic power factor correction capacitors are only suitable.

- When capacitors are provided there will be some marginal reduction in Harmonics also.

- **Apart from saving in Energy, the great benefit is reduction in load and demand, which is avoiding over loading of Electrical systems particularly during peak load period.**

6. ENERGY SAVING-OTHERS–SIMPLE OPERATIONAL RECOMMENDATIONS

I. Computer systems:

Potential for Energy Saving:

The energy usage of a desktop PC to determine energy usage levels in different operational modes.

15"TFT monitor(running)	22watts
15"TFT monitor (sleep mode)	2watts
Computer(on but not inuse*)	65watts
Computer(standbymode)	5watts

*Energy usage of the computerwill fluctuated during use, as the hard drive is accessed.

Computer Systems		
ECO	**Problem**	**Energy Wasted**
Energy conservation by Setting sleepmode, and Stand by mode during idle Period	Consumption during the Systems in operation	Wastage of energy is During the idle period

Monitor power saving calculation		
Description		
15"TFT Monitor power consumption while at running	Watts	20
15"TFT Monitor power consumption while at sleeping mode	Watts	2
Saving power in monitor while at idle period per monitor	Watts	18
Apprx. Average Idle period per monitor/day	Hrs	2
Apprx. Energy saving during idle period per monitor/day	Whr	36
Apprx. Energy saving during idle period for 800nos monitors/day	kWhr	28.8
Apprx. Energy saving during idle period for 800 nos monitors/ year	KWhr	**7200**
Apprx. Annual saving in amount @ Rs.8/unit	**Rs.**	**57,600/-**

Description		
Saving power in monitor while at idle period per monitor	Watts	63.4
Apprx.Average Idle period per monitor/day	Hrs	1
Apprx.Energy saving during idle period per monitor/day	Whr	63.4
Apprx.Energy saving during idle period for 350nos monitors/day	kWhr	22.19
Apprx.Energy saving during idle period for 350nos monitors/year	KWhr	**5547.5**
Apprx.Annual saving in amount @Rs.8/unit	**Rs.**	**44,380/-**

CPU Powersavingcalculation		
Description		
Computer power consumption (on but not inuse)	Watts	65
Computer power consumption(stand by mode)	Watts	4.3
Saving power in CPU while at standbymode period per system/day	Watts	60.7
Apprx.Stand by mode period per CPU/day	Hrs	1
Apprx.Energy saving during standbymode period per CPU/day	Whr	60.7
Apprx.Energy saving during standbymode period for 1150 nosCPU's / day	KWhr	70
Apprx.Energy saving during standbymode period for 1150 nosCPU's / year	KWhr	**17450**
Apprx.Annual savings in amount @Rs.8/unit	**Rs.**	**139,600/-**

Recommendations:

- ☐ By setting the monitor sleeping mode timings to the minimum possible which gives powersaving by 20W while not in usage. And also the life of the monitor will be enhanced.

- ☐ By setting the CPU hard disc stand by and Hibernate mode to the minimum possible time which gives power saving about 60W while not in usage. And also the life of CPU will be enhanced.

- ☐ Because of the settings the temperature of the room will be reduced

II. Lighting System's

A. Lightings:

- The performance of the lighting systems has been studied and analyzed as here under.
- Theactual illumination levels at main were measured with standard Luxmeter.
- The type of lamps, number of lamps, illuminating area, mounting arrangement of the fittings, wattage of lamps and output lumens of the lamps are taken into account to assess the wastage of energy in the lighting system
- The wastage in the lighting system is assessed based on the standards given by the Bureau of Energy Efficiency.

The Annual consumption pattern is assessed for floorwise, based on operating hours and connected load and is tabulated below.

Sl.no.	Location	ExistingTL40W
		kWhrs
1	Front area	8619
2	A-Block-GroundFloor	9365
3	A-Block-FirstFloor	1966
4	A-Block- SecondFloor	1828
5	B-Block – Ground Floor	9375
6	B-Block – First Floor	2079
7	B-Block – SecondFloor	4514
8	C-Block- GroundFloor	3145
9	C-Block- First Floor	1788
10	C-Block- SecondFloor	2118
11	EEE Department (Workshop)	1251
12	M-Block(GroundFloor)	853
13	M-Block(1stFloor)	330
14	M-Block(2ndFloor)	1320
15	Newhostel(GroundFloor)	9570
16	Mess	2833
17	OldHostel	10038
18	L-Block(GF)	418
19	L-Block(1stFloor)	1141

20	L-Block (2ndFloor)	1309
21	PRCET Block(GF)	3493
22	PRCETBlock(1st floor)	1700
23	PRCET Block(2ndfloor)	990
24	Health Centre	743
25	Health Centre:(Block-1stfloor)	330
26	Health Centre:(Block-2ndfloor)	110
27	Administrative Block -GroundFloor	9740
28	Administrative Block -FirstFloor	7681
29	Administrative Block -SecondFloor	4761
30	Polytechnic Block	4538
31	Polytechnic Block	3520
32	Administration Block	592
33	Street Light	30748
	Total	**145982**
	Total Annual consumption in kWhrs with DF 1.5	**97321**

The wastage has been calculated in detail taking all required parameters. The wastage becomes due to using inefficient lamps with low output lumens per watt and improper arrangement and mounting height of fittings and poor maintenance factor. The annual wastage for all locations and rooms were calculated and tabulated below.

SL. No.	Location	Oper. Hrs.	Total Watts	Area in M²	Measd Avg. Lux	ILER	Annual wastage in kWHrs	Total Annual wastage in kWHrs
Front Area								
1	MV Panel Room	13	605	89.08	60	0.19	2321	2321
2	MSB Panel Room	12	220	32.4	66	0.24	728	728
3	Civil room-old estate office	8	55	10.2	0	0.00	88	88
4	Front Room	8	55	10.2	58	0.33	73	73
5	Security Room (Office)	12	55	5.52	118	0.39	146	146
6	Security Room	12	55	5.52	107	0.36	155	155
A-Block (Ground Floor)								
7	Material Room	8	55	69.75	49	1.37	-32	-32
8	Store Stack Room	8	110	19.6	0	0.00	176	176
9	Staff room	4	220	30	44	0.16	185	185
10	Class Room D2,D3,D4.	6	220	69.75	63	0.44	184	552

11	EEE Computer Room	3	220	69.75	70	0.51	82	82
12	Transducer Lab	8	110	69.75	65	0.92	19	19
A-Block (First Floor)								
15	Class Room 5,6,7,8,9,10	8	55	69.75	64	1.80	-88	-528
16	Staff room(Gents)	8	165	17.28	57	0.17	273	273
17	Facuty Room	8	110	50	64	0.69	67	67
18	Class Room11,12,13,14	6	540	279	63	0.72	224	896
19	Conference Room (Drawing Room)	4	432	69.75	156	0.57	148	148
21	Electronic system Design lab	8	198	76.95	82	0.71	115	115
22	Electronic Circuit Lab	8	198	77.76	99	0.87	53	53
23	Digi.sig. Processing Lab	8	198	78.57	99	0.88	49	49
24	VLSI & Embedded Lab	4	198	77.76	79	0.69	61	61
25	H.O.D(E.C.E)	8	88	37.26	82	0.85	27	27
26	Microwave & Fibre Optics Lab	4	540	75.33	0	0.00	540	540
27	Communication Lab	3	198	77.76	100	0.87	19	19
28	virtual communication Lab	8	176	76.95	56	0.55	159	159
29	Power Electronics Lab	4	324	75.33	94	0.49	167	167
30	Director Room	6	220	37.26	202	0.83	55	55
31	Main Library	8	880	315.9	45	0.33	1179	1179
32	Electronics Lab	3	110	58.32	0	0.00	83	83
33	Classrooms A5,A6,A7,A8,A9.	8	220	76.14	49	0.38	273	1265
34	Staff Room	6	216	35.64	85	0.35	211	211
35	Office Room	4	220	76.95	40	0.31	151	151
36	office Room(Reception)	8	330	76.14	53	0.27	482	482
37	Exam Cell	7	1224	57.34	53	0.06	2021	2021
39	P.G. Computer Lab	3	480	154.7	150	1.01	-3	-3
40	Communication Skills Lab	0	2640	115.8	152	0.14	0	0
41	Conference Room	2	432	251.1	286	3.40	-414	-414
42	Staff Room	8	55	36.45	35	0.58	46	46
A-Block (Second Floor)								
44	Class Room1,2,3,4	8	220	76.14	47	0.36	281	1124
45	Drawing Room	3	275	139.7	25	0.27	151	151
B-Block (Ground Floor)								
46	Spare room	8	165	91.2	0	1.00	0	0
47	Canteen	4	440	257.3	25	0.30	308	308
	Canteen 1st Floor	2	220	257.3	20	0.48	57	57

48	Staff canteen	4	110	20.46	46	0.24	83	83
49	Ladies Canteen Left Side	4	275	144.9	19	0.21	216	216
50	Ladies Canteen Right Side	4	220	144.9	19	0.27	161	161
51	Kitchen	8	144	31.28	56	0.33	193	193
52	Store Room	4	55	12.58	35	0.24	42	42
B-Block (First Floor)								
53	Process Lab	4	110	37.6	27	0.24	83	83
		8	110	37.6	27	0.24	166	166
54	Biology lab	1	220	38.4	51	0.24	42	42
		8	220	36.8	0	0.00	440	440
55	Instr. Analy. lab	3	330	115.2	0	0.00	248	248
56	Physics Lab	1	330	118.4	54	0.41	48	48
57	Lab	6	110	78.4	41	0.67	54	54
		0	110	78.4	0	0.00	0	0
58	DEAN Room	6	44	36	74	1.51	-34	-34
		6	72	36	0	0.00	108	108
		6	40	36	0	0.00	60	60
59	Micro Biology Room	10	550	153.6	125	0.74	354	354
60	UG Computer Lab(Centre-1)	8	990	118	178	0.46	1068	1068
		8	220	24.38	100	0.30	308	308
		4	55	11.04	59	0.35	36	36
61	UG Computer Lab(Centre-2)	8	440	116	0	0.00	880	880
62	Chemistry lab	0	0	152	39	0.00	0	0
B-Block (Second Floor)								
63	ClassroomB4,B5,B7 B8,B9,B10,B11 , B12,B13,B14,B15,B16	2	220	76	47	0.37	69	828
64	staff Room B6	6	220	76	41	0.32	224	224
65	Ladies staff Room	8	110	37.6	40	0.33	147	147
66	I.T Lab	5	990	116	122	0.30	861	861
		5	55	116	0	0.00	69	69
67	ClassroomB17,B18, B19,B20,B21, B22,B23,B24,B25,B26.(=B4)	2	220	76	47	0.37	69	698
68	Staff Room	2	110	38.4	40	0.34	36	36

69	Director Room	8	110	38.4	46	0.39	134	134
70	B-Block Exam cell							
71	Staff Room	8	110	36	40	0.33	148	148
EEE Department (Workshop)								
73	Staff Room	5	55	19.36	40	0.40	41	41
74	Store Room	8	55	19.36	22	0.22	86	86
75	Electric circuits Lab	3	110	38.72	42	0.34	55	55
76	Electric Machines lab	4	990	500.2	28	0.27	721	721
M-Block(Ground Floor)								
77	Strength of materials Lab	4	770	336	26	0.22	599	599
M-Block(1st Floor)								
79	Metrology & Measurement,Dynamics, Mechanics, Thermal Lab	6	220	71.68	40	0.30	232	232
	M-Block (2nd Floor)							
80	Classroom 1,2,3,4.	6	220	71.68	40	0.30	232	232
New hostel (Ground Floor)								
83	Hostel room	5	110	18.25	83	0.39	83	4067
old Hostel								
91	Hostel room	5	110	18	61	0.28	99	7227
L-Block(GF)								
92	Class Rooms-9nos	2	110	69.16	26	0.36	35	35
L-Block(1st Floor)								
93	Computer Centre-1	5	396	309	44	0.67	162	162
		5	55	309	0	0.00	69	69
94	Computer Centre-2	5	462	190.6	87	0.72	163	163
L-Block(2nd Floor)								
95	Electronics Lab	2	165	108.3	27	0.38	51	51
96	Electronics(Digital) lab	2	165	108.3	32	0.45	46	46
97	Optical Lab	1	165	108.3	36	0.50	21	21
98	Lab(Same as Electronic lab)	2	165	108.3	29	0.40	49	49
99	1st Floor, Library	2	858	311.6	88	0.63	160	160
PRCET Block(GF)								
103	Chemistry lab	6	385	157.9	0	0.00	578	578
104	Room	8	550	114.8	0	0.00	1100	1100
PRCET Block(1st floor)								

106	Ladies staff Room	8	275	65.6	0	0.00	550	550
107	Lecture Hall:E8	4	110	53.3	0	0.00	110	110
108	Lecture Hall:E7	4	110	59.04	0	0.00	110	110
109	Elec. Crt Lab:(Staff Rom)	4	110	82	0	0.00	110	110
110	Physics Lab	4	220	98.4	0	0.00	220	220
PRCET Block(2nd floor)								
111	Lecturer hall:E12,E14	2	220	98.4	0	0.00	110	220
112	Lecturer hall:E13	2	220	98.4	0	0.00	110	110
115	Lecturer hall:E9,E10,E11.	2	220	98.4	0	0.00	110	220
Health Centre: (Block)								
116	Estate Office Hall	2	165	37.19	0	0.00	83	83
117	Estate Office Room	8	165	17.86	0	0.00	330	330
118	Cash Counter Room	8	110	37.19	0	0.00	220	220
Health Centre: (Block-1st floor)								
119	Guest Room-1	4	220	37.19	0	0.00	220	220
120	Guest Room-2	4	55	37.19	0	0.00	55	55
Administrative Block - Ground Floor								
122	Reception	8	66	21.62	0	0.00	132	132
123	Dean Room	8	110	21.62	0	0.00	220	220
124	Admission hall	4	864	144.8	200	0.66	297	297
125	Director Room	8	36	10.25	0	0.00	72	72
126	Facuty Room-2	6	216	36.9	0	0.00	324	324
127	Facuty Room-1	6	36	9.84	0	0.00	54	54
128	Computer Centre-1	6	704	178.6	111	0.55	475	475
129	Varanda	0	0	0	0	0.00	0	0
130	Internet Centre	0	0	86.49	110	0.00	0	0
131	Smart Class Room	3	352	89.04	84	0.43	150	150
132	Server Room	5	264	23.32	0	0.00	330	330
133	Computer Centre-2	8	110	86.49	110	1.77	-170	-170
134	Computer center-3	6	352	178.6	111	1.10	-53	-53
	Computer center-4	0	0	0	0	0.00	0	0
135	Entrance	8	22	21.62	108	2.59	-70	-70
136	SISCO Lab	6	468	104.4	125	0.57	303	303
137	Computer Hardware Room	5	396	101.5	0	0.00	495	495
Administrative Block - First Floor								
140	Pro-Vice Chancellor Room	8	144	20.68	226	0.79	60	60
141	M.Phil Room	8	108	21.12	183	0.87	27	27
142	Dean-Science & Humanities	6	36	20.68	196	2.75	-94	-94

143	Director-Academic Affairs	6	36	20.68	196	2.75	-94	-94
144	Senior Advisor Room1	8	55	20.68	75	0.78	24	24
145	Senior Advisor Room2	8	144	20.24	149	0.51	141	141
146	Visitor room	8	110	30.08	56	0.43	126	126
147	Pro-Chancellor Room	6	180	35.38	147	0.66	93	93
148	Office Room-Front	8	55	15.84	47	0.41	65	65
149	Office Room	8	252	66.43	129	0.69	154	154
150	Service Room	0	18	17.92	45	1.21	0	0
		0	55	17.92	0	0.00	0	0
152	Vice-Chancellor (Visitors Room)	8	72	16.32	71	0.43	81	81
153	Main Room	8	252	55.46	155	0.74	130	130
154	Record Room	6	72	13.95	85	0.46	59	59
155	Register Office-Front Room	8	110	20.68	85	0.46	120	120
156	Other room	8	72	21.12	92	0.66	49	49
157	Registrar Room	8	144	44.18	72	0.49	147	147
	Toilet	0	0	0	0	0.00	0	0
158	Central-Administration Office	8	55	21.62	36	0.39	67	67
	Front Room	2	55	21.62	0	0.00	28	28
159	Main Room	8	665	194.6	110	0.64	474	474
Administrative Block - Second Floor								
160	Exam Cell Room	8	880	181.9	91	0.38	1084	1084
161	Students Materials ware house	8	110	89.3	24	0.43	125	125
		8	110	89.3	0	0.00	220	220
162	Director-Education	8	440	86.49	50	0.21	692	692
163	Controller of Exam.(Front room	8	72	16	88	0.54	66	66
164	Main Room	8	180	38.4	152	0.72	101	101
165	Addl. Con. of Exam.(Front Room)	8	55	21.62	65	0.71	32	32
166	Room	8	88	28.06	106	0.79	38	38
167	Office-1	8	110	42.4	50	0.48	114	114
168	Office-2	8	110	42.3	50	0.47	117	117
169	COE Office	8	110	48.88	85	0.88	27	27
170	Deputy COE	8	66	13.53	138	0.79	28	28

171	Confidential Room-1	8	132	20.13	148	0.56	115	115
172	Confidential Room-2	4	275	88.36	64	0.45	152	152
Polytechnic Block								
173	Electric Machines lab	8	440	252	29	0.35	569	569
174	Mechanical Workshop	4	1760	504	64	0.35	1140	1140
175	Computer Lab	4	990	112.2	46	0.10	887	887
176	SM Lab	4	220	112.2	29	0.31	151	151
177	FM Lab	4	275	169.6	29	0.36	175	175
178	Thermal Engg. Lab	6	275	175.7	29	0.37	260	260
Polytechnic Block(1st Floor)								
179	Staff Room	8	55	20.44	38	0.40	66	66
180	Chemistry lab	4	110	85.56	38	0.64	39	39
181	Physics Lab	4	110	87.4	38	0.66	38	38
182	Class Room	4	110	87.4	48	0.83	19	19
183	Electronics Device Lab	4	110	87.4	38	0.66	38	38
184	Office Room	8	165	53.1	148	1.11	-36	-36
185	Lab	4	110	83.72	65	1.08	-8	-8
186	Computer Centre	4	550	120.1	62	0.29	392	392
187	Class Room	4	110	171.1	48	1.52	-58	-58
188	Staff Room	8	110	40.04	38	0.33	148	148
189	Class rooms1,2,3,4,5,7,8,9,10,11	6	110	83.72	48	0.79	34	340
Administration Block (1st floor)								
190	Chancellor Room-1	4	110	20.4	56	0.29	78	78
191	Front Room	8	144	32.86	85	0.46	155	155
192	Main Room	4	216	47.36	163	0.78	48	48
								50771

From the above calculation, the assessed annual energy wastage in lightings is 50771 kWhrs, because of excess lightings, improper mounting arrangement and in efficient lamps.

B. Potential for Energy Saving:

LIGHTING SYSTEM		
ECO	**Problem**	**EnergyWasted**

1.Providing Energy Efficiency lamps	Existing some Lamps having higher Wattage	Due to higher consumption
2.Providing Energy Efficient Electronic Choke	Existing some conventional chokes consume more energy	The difference of wattage for conventional and Electronic chokes
3.Provision of Energy saving device	Over magnetization due to excess voltage in the choke	Wastage due to Excess powerconsumption in choke

Energy Saving Proposal:

The Energy wastage has been calculated for other type of efficient lamps available in the market and seen that there is considerable reduction in wastage of consumption as tabulated below.

The saving in consumption when using 36WTL and 28WTL with Electronic chokes also has been worked for all areas for selection of suitable type of lamps in economical way.

Consumption & Wastage of power calculated as per ILER for different types of lamps.				
Sl.no.	**Location**	**TL40 W**	**TL36 W**	**TL28 W**
1	Front area	4514	3283	2462
2	C-Block-Ground Floor	3145	2395	1845
3	C-Block-First Floor	1788	1300	975
4	C-Block- Second Floor	2118	1856	1681
5	A-Block –Ground Floor	8619	8507	8432
6	A-Block-First Floor	9365	7542	6327
7	A-Block-Second Floor	1966	1430	1073
8	A-Block-Third Floor	1828	1440	1080
9	B-Block Ground Floor	9375	6882	5205
10	B-Block First Floor	2079	1524	1154
11	EEE Department- Workshop	1251	910	683
12	M-Block-GroundFloor	853	680	510
13	M-Block-1st Floor	330	240	180
14	M-Block-2nd Floor	1320	960	720
15	Newhostel –Ground Floor	9570	6960	5220
16	Mess	2833	2060	1545
17	OldHostel	10038	7300	5475
18	L-Block(GF)	418	304	228
19	L-Block(1stFloor)	1141	1123	1110

20	L-Block(2ndFloor)	1309	1069	909
21	PRCET Block(GF)	3493	2540	1905
22	PRCET Block(1st floor)	1700	1332	1087
23	PRCET Block(2ndfloor)	990	720	540
24	Health Centre:(Block)	743	540	405
25	Health Centre:(Block-1stfloor)	330	240	180
26	Health Centre:(Block-2ndfloor)	110	80	60
27	AdministrativeBlock - Ground Floor	9740	9273	8743
28	Administrative Block -First Floor	7681	6544	5854
29	Administrative Block - Second Floor	4761	3756	3086
30	Polytechnic Block	4538	3300	2655
31	Polytechnic Block(1stFloor)	3520	2560	1920
32	Administration Block(1stfloor)	592	568	552
	Subtotal	**115234**	**89218**	**73801**
33	Street Light	30748	30748	30748
		145982	**119966**	**104549**
	With Diversity Factor-1.5	**97321**	**79977**	**69699**
	Economic Wattage use	**64639**	**64639**	**64639**
	Net Wastage	**32682**	**15338**	**5060**

Proposal1: Replacement of 40W lamp by Energy Efficient lamps by TL36W.

Annual saving in Energy due to 36W lamp replacement Assessed reduction in demand @ 7.5KVA/month	kWhr KVA	17344 90
Annual saving in Rs.@ 8.00/Kwhr Saving in demand reduction @ Rs.300/KVA	Rs.	69,376/- 27,000/-
Investment for 1035 nos lamps @ Rs.100 per lamp	Rs.	1,03,500/-
Paybackperiod	Months	**13**

Proposal 2: Replacement of 40W lamp by Energy Efficient lamps by TL28W lamps.

Annual saving in Energy due to 28W lamp replacement Assessed reduction in demand @ 16KVA/month	KWhr KVA	27622 192
Annual saving in Rs.@ 8.00/Kwhr Saving in demand reduction @ Rs.300/KVA	Rs. Rs.	1,10,488/- 57,600/-
Investment for 1035 nos fittings @Rs.450 perfitting	Rs.	4,65,750/-
Paybackperiod	Months	**33**

Proposal 3: Replacement of conventional choke by Electronics chokes

Consumption with conventional chokes for Sodium vapour lamps									
Sl.no.	**Location**		**Type of lamps**	**Oper. Hours**	**Wattage of lamp**	**Nos.**	**Total watts**	**Workin gdays**	**Annual consm.**
1	Panel Room	St.light-1	250W SVL	12	290	4	1160	365	5081
2		St.light-2	250W SVL	12	290	7	2030	365	8891
3	PillorBox	St.light-3	250W SVL	12	290	15	4350	365	19053
									33025
Consumption with Electronic chokes with Dimmer for Sodium vapourlamps									
Sl.no.	**Location**		**Type of lamps**	**Oper. Hours**	**Wattage of lamp**	**Nos.**	**Total watts**	**Workin gdays**	**Annual consm.**
1	PanelRoom	St.light-1	250W SVL	12	232	4	928	365	4065
2		St.light-2	250W SVL	12	232	7	1624	365	7113
3	PillorBox	St.light-3	250W SVL	12	232	15	3480	365	15242
							1.508		**26420**
								Annual savings	**6605**

Annual saving in Energy due to replacement of chokes with dimmer. Assessed reduction in demand per month	kWHr kVA	6605 1.058
Annual saving in Rs.@ 8.00/ Annual saving in demand @Rs.300/-	Rs.	**26,420/-** **5,400/-**
Investment for 26nos fittings @Rs.5000 per fitting	Rs.	1,30,000
Paybackperiod	Months	**48**

Proposal4: Provision of Energy Saving Devices

Provision of Energy Saving devices		
Accessed annual power consumption in lightings and Fans	kWhrs	1,74,160
Expected savings per year @ 5% for lighting and 10% for Fans by using energy saving devices Expected reduction in demand 13KVA	kWhr KVA	13943 136
Annual saving in Rupees @Rs.8.00/kWhr **Annual saving in demand@Rs.300/KVA**	**Rs.** **Rs.**	**55,772/-** **40,800/-**

Implementation proposal		
Required Energy saving device	KVA	200
Cost of Energy saving device installation	Rs.	2,50,000/-
Paybackperiod	**Months**	**31**

Recommendations:

- From the above table, it is seen that there is possibility of considerable savings by replacing the existing 40W lamps by energy efficient lamps of 28W.
- When using 28W, the saving is assessed as 27622 kWhrs and 192 KVA and saving in amount will be **Rs.1,68,088/-per annum**.
- Also, there will be some reduction in demand of 16 KVA due to reduction in connected lighting power.
- Reduce excessive illumination levels to standard levels using switching, de lamping, etc.(Know the electrical effects before doing delamping.)
- Replacement of conventional Sodium & MHD magnetic ballast by Electronics ballast with dimmer with due consideration to life and powerfactor apart from watt loss.
- Because of this replacement there will be reduction of 25W per lamp without affecting illumination level.
- By voltage optimization and thereby saving in energy without affecting the illumination.
- When going for Energy saving devices for voltage optimization, there will be a small drop in illumination level, but there will be huge saving in Energy. Comparing the drop in illumination, this is negligible.
- The line current can also be reduced to some extent.
- Marginal improvement in Power Factor due to reduction in magnetizing current.
- As such 10% of energy can be saved apart from the previous proposal.
- The lighting load is normally used during night hours, during that period the supply voltage is above required value and the loss is more.
- The application of energy saving devices can reduce the losses by voltage optimization.

Recommendations (General):

- Aggressively control lighting with clock timers, delay timers, photocells, and/or occupancy sensors and providing individual controls or switches for avoiding unnecessary burning of lamps.
- Install efficient alternatives to incandescent lighting, mercury vapor lighting,etc. Efficacy1(lumens/watt) of various technologies range from best to worst approximately as follows: Low pressure sodium, high pressure sodium, metalhalide, fluorescent, mercury vapor, incandescent.
- Select ballasts and lamps carefully with high power factor and long-term efficiency in mind.
- Upgrade obsolete fluorescent systems to Compact fluorescents and electronic ballasts
- Consider day lighting, skylights,etc.
- Consider painting the walls a lighter color and using less lighting fixtures or lower wattages.
- Use task lighting and reduce background illumination.
- Re-evaluate exterior lighting strategy, type, and control. Control it aggressively.
- Change exit signs from neon to LED.

III HVAC:
Window & Split AC:

A. *Potential for energy saving:*

- The available capacity of Air conditioners are 121 Ton. As per international standards of AC designing taken into account of all existing parameters, the total capacity required is 170 Ton. So there is no excess capacity available and also seen from room wise calculations there is noexcess capacity.

- If the periodical maintenance like filters & cooling coils cleaning, gas pressure checking etc., are carried out as per recommended schedule, the EER can be improved.

- Also the life of the stabilizer will be reduced.

- The energy saving can be achieved about 15% by providing energy saving devices.

Annual consumption of AC stabilizers during Idle period

SL No.	Location	AC Available					Oper.hours	Idleh ours	Idleconsm	Monthly consm	Annualconsm
		Ton	1 Ton	1.5 Ton	2 Ton	Nos					
I	**Admin Block Ground floor**										
1	Admission hall	6		4		4	4	5	600	15	150
2	Computer centre-1	7		2	2	4	6	3	360	9	90
3	Internet Centre	3			2	2	3	6	360	9	90
4	Smart classroom	3		2		2	4	5	300	7.5	75
5	Server room	2	2			2	12	12	720	18	180
6	Computer centre-2	3			2	2	6	3	180	4.5	45
7	Computer centre-3	3			4	4	6	3	360	9	90
II	**Admin Block First floor**										
1	Pro-vice chancellor room	1.5		1		1	4	5	150	3.75	37.5
2	Senior advisor room	1.5		1		1	6	3	90	2.25	22.5
3	Pro-chancellor room	2			2	2	4	5	300	7.5	75
4	Chancellor room	4		1	1	2	4	5	300	7.5	75
5	Office room	2			1	1	6	3	90	2.25	22.5
6	Vice-chancellor room	2		1		1	6	3	90	2.25	22.5
7	Registrar room	2				0	6	3	0	0	0
8	Central admin room	2	2			2	6	3	180	4.5	45

III	**Admin Block Second floor**										
1	Controller of examination	1.5		1		1	4	5	150	3.75	37.5
2	Addl.Contr. of exam.	1.5		1		1	4	5	150	3.75	37.5
IV	**PolyTechnic Ground Floor**					0			0	0	0
1	Computer Lab	3		2		2	6	3	180	4.5	45
V	**PolyTechnic First Floor**										
1	Computer centre	3		2		2	4	5	300	7.5	75
VI	**Healthcentre,Ground Floor**					0			0	0	0
1	Server room	1.5		1		1	18	9	270	6.75	67.5
VII	**Healthcentre,First Floor**										
1	Guestroom-1	1.5		1		1	4	5	150	3.75	37.5
2	Guestroom-2	1.5		1		1	4	5	150	3.75	37.5
VIII	**B-Block(Ground Floor)**					0			0	0	0
1	BiologyLab	1.5		1		1	6	3	90	2.25	22.5
2	UG Computer Lab	9		6		6	6	3	540	13.5	135
3	UG Computer Lab(Server)	1.5		1		1	6	3	90	2.25	22.5
IX	**A-Block(GroundFloor)**										
1	DSPLab	1.5		1		1	6	3	90	2.25	22.5
2	Principal room	1.5		1		1	6	3	90	2.25	22.5
3	Comm.skills-Comp.lab	3		2		2	4	5	300	7.5	75
4	PG computerLab	8			4	4	6	3	360	9	90
5	Conference Hall	11.5		1	5	6	2	7	1260	31.5	315
X	**L-Block (First Floor)**										
1	Computer centre	6			3	3	6	3	270	6.75	67.5
2	Computer centre	10			5	5	6	3	450	11.25	112.5
3	Library	10			5	5	4	5	750	18.75	187.5
		121	**4**	**34**	**36**	74			**9720**	**243**	**2430**

Annual saving in Energy by switching of stabilizers during non AC period	Kwhr	2430
Annual saving in Rs.@ 8.00/Kwhr Reduction in demand Rs.300/KVA	Rs. 12KVA Rs.	9720/- 3600/- **13,320**
Investment	Rs.	**Nil**
Paybackperiod	Months	**Nil**

- Energy loss for annual is around 2430 units can be saved by switching off the stabilizer during AC non working period.
- Also at least one KVA of demand is reduced in working hours and is helpful in reduction in maximum demand.
- And also the life of the stabilizer will be reduced.

Provision of Energy Saving devices		
Accessed annual power consumption in Airconditioning	KWhrs	122400
Expected savings per year @ 15% by using energy saving devices	KWhr	18360
Expected reduction in demand 25 kVA/mon	KVA	250
Annual saving in Rupees @ Rs.8.00/kWhr	**Rs.**	**73,440/-**
Annual saving in demand @ Rs.300/kVA	**Rs.**	**75,000/-**
		1,48,440/-

Implementation proposal		
Required Energy saving device	KVA	74
Cost of Energy saving device installation	Rs.	3,70,000/-
Paybackperiod	**Months**	**30**

General Recommendations:

- Turn off electrical/heat producing equipments when not in use:lights, computers etc.
- Check and clean the Air conditioner filter every month. This will improve cooling, reduce compressor running time and save energy.
- Keep the doors and windows closed, while using the Airconditioner.
- Make sure your doors and windows are well sealed; you will pay a lot more to cool your room when the cold air easily escapes. Do-it-yourself weather stripping for doors and caulk for windows is easy to install and cheap.
- Use venetianblind or curtains for windows to minimize the solar radiation heat.
- Reflective film reflects the sun's heat from your windows, and can block 40-60% of heat and modern films reflect heat away without blocking the light too, so you can still have nice, bright rooms.
- Thermostat setting of 23 – 25 Deg C provides comfort. Do not keep lower settings. It will increase compressor run time and increase your energy bill. Clean the condenser/evaporatorcoils at the beginning of each season by an AC specialist.
- AC Outdoor unit should be provided with good ventilation.

IV. *UPS systems:*

Performance Analysis:

The total connected load UPS wise has been taken and tabulated below. Only 3 nos. UPS are connected more than 75% loads. Others are around 50% connected loads and an average of 66%. So the spare capacity is available. But under loading causes low efficiency and losses more. The efficiencies are worked out from the data measured at normal working load.

A. *Loading pattern:*

Sl. No.	**UPS Location**	**Connected load in UPS**						
		Capacity	**TFT**	**Others**	**Total**	**PF**	**Connected**	**Loading**
		kVA	**100**	**100**	**KW**		**kVA**	**%**
1	ECE Dept.A -Block GroundFloor	30	77	3	8	0.53	15.1	50
2	PG comp. center,A–Block First Floor	30	81	7	12	0.54	22.2	74
3	UG Computer center.B–Block GroundFloor	30	1	5	12.5	0.5	25.0	83
4	ITLab.B-Block GroundFloor	15	1	3	5.8	0.66	8.8	59
5	Server roomC – Block First Floor-1				0			
6	Server room. Admn.Block FirstFloor	100	371	36	41.1	0.6	68.5	69
6	PRCET Block	5	0	4	2.3	0.79	2.9	58
7	Health Centre	5	3	2	0.5			0
8	D-Block, GroundFloor	15	42	1	4.3	0.81	5.3	35
9	L -Block,computerLab	60	255	0	30.2	0.58	52.1	87
10	Polytechnic-I	15	2	2	5.4	0.88	6.1	41
11	Polytechnic-II	30	1	1	7.5	0.49	15.3	51
12	Polytechnic-II	30	***No load***			0.32		
	Total	**335**	**834**		**129.6**		**221.3**	**66**

B. Efficiency:

Sl.N0.	UPS Location	Testing parameters							
		Input	Output	Loss	Efficy.	Input	Output	Loss	Efficy.
		KW	KW	KW	%	kVA	kVA	kVA	%
1	ECE Dept. A – Ground Floor	6.57	5.39	1.18	82	12.03	7.49	4.54	62
2	PG comp. center, A - Block First Floor	4.98	2.88	2.1	58	9.87	3.84	6.03	39
3	UG Computer center.B -Block Ground Floor	6.88	4.22	2.66	61	13.05	5.35	7.7	41
4	IT Lab.B– Block Ground Floor	2.69	0.88	1.81	33	4.56	1.26	3.3	28
5	Server room.C – Block First Floor-1	11.37	7.78	3.59	68	17.32	10.96	6.36	63
6	Server room Admn Block First Floor-2	7.92	6.81	1.11	86	13.45	9.38	4.07	70
6	PRCET Block	0.8	0.6	0.2	75	1.09	1.09	0	100
7	Health Centre		0.47				0.47		
8	D-Block Ground Floor	3.1	2.17	0.93	70	3.81	3.18	0.63	83
9	L –Block computer Lab	12.71	11.07	1.64	87	23.25	15.53	7.72	67
10	Polytechnic-I	4.34	3.8	0.54	88	4.91	4.74	0.17	97
11	Polytechnic-II	3.63	2.9	0.73	80	7.44	3.98	3.46	53
12	Polytechnic-II	0.596	0	0.596	0	1.963	0	1.963	0
		65.58	**48.97**	**17.08**	**72%**	**112.7**	**67.27**	**45.9**	

It is seen from the measurements and data, some of the UPS are having poor efficiency and losses are more.The power factor is also low.

UPS losses due to low efficiency								
Sl.No.	**UPSLocation**	**Capacity**	**Input**	**Actual**	**Input**	**loading**	**Normal**	**Actual loss**
		kVA	**KW**	**Efficiency**	**kVA**	**%**	**Efficiency**	**KW**
1	ECE Dept. A - Block(NewB-Block)GroundFloor	30	6.57	82	12.03	40	84	0.1314
2	PG comp. center,B – Block FirstFloor	30	4.98	58	9.87	33	81	1.1454
3	UG Computer center.C –Block GroundFloor	30	6.88	61	13.05	44	85	1.6512
4	IT Lab. C – Block GroundFloor	15	2.69	33	4.56	30	80	1.2643
5	Server room. Admin Block First Floor-1	50	11.37	68	17.32	35	82	1.5918
		155	**32.4**		**56.8**			**6.05KW**

The losses are from 6% at no load to 30% at normal working load.The power factor is also from 0.5 to 0.8 and hence the current flow is also more. It is also seen that when systems are not working and the UPS are in service. Hence no-load losses.

Potential for energy saving:-

- *As the UPS are partially loaded, utilization of maximum capacity of UPS can reduce the losses.*
- *The poor efficiency UPS are having more losses and Energy efficient UPS with high efficiency can be replaced for if cost suits.*
- *Switching off the UPS when systems are not in use.*
- *If the load power factor is high, the capacity utilization of UPS will be more.*
- *From the above proposals, the total capacity of UPS is reduced and there by losses can be reduced.*

B. Savings due to reduction in UPS capacity:

	KW	kVA
The total UPS capacity	222	335
The total connected load	130	222
Balance capacity available	92	113

	kWHr	kVA
Savings due to reduction of 50kVA UPS capacity perday	36	6
Annual savings	9000	60
Annual savings in amount	36,000	18,000

Without investment the total savings Rs.54,000/-

As such at least 50kVA capacity can be reduced by redistribution of systems and splitting the UPS capacities. About 4 KW loss in power can be saved. The savings in amount is worked out as Rs.54,000/-

A.Savings due to switching off at no load period:

	kWHr	kVA
Savings due to switching off at no load period per day	120	20
Annual savings	30000	200
Annual savings in amount	120000	60,000

Without investment the total savings Rs. 1,80,000/-

Recommendations:

- The UPS systems are having poor power factor and higher percentage of current harmonics and poor efficiency. If the UPS are replaced with higher efficiency UPS, the losses can be reduced.
- The required capacity of the UPS for actual loading of systems will reduce loss.
- The UPS systems can be switched off during the non operational period.

V. *Motors*

Performance Analysis & Recommendations

The motors are utilized for water pumping.

Except one motor other motor are working in full load with maximum efficiency.

Sl. No.	Location	KW	Working hours	Consm per day	Annual consm	% loading	Efficiency		Energy Eff Motor	Annual savings	Savings inRs.
							Present	Std			
1	L - Block	1.49									
	5 HP	1.56									
		1.48									
		4.53	5	22.5	6750	98	81	81	85	318	1272
2	Near Canteen										
	3 HP	2.22	6	13.2	3960	78	78	79	85	327	1308
3	NearB Block										
	15 HP	4.8	5	24	7200	35	79	83	88	737	2948
4	Near Hostel										
	5 HP	1.55									
		1.57									
		1.45									
		4.57	6	27.6	8280	99	81	81	85	390	1560
		16.13			**26190**					**1772**	**7088**

Recommendations:(General)

- Generally the efficiency of the standard motors is poor& losses are more.
- But the Energy efficient motors having higher efficiency than standard motors.
- As the operating hours are less and the replacement cost is high, the pay back period is more.Whenever the change of motors involves these motors may be replaced by energy efficient motors due to economic reasons.

- When a motor has a higher rating than that required by the equipment, motor operates at partial load. In this state, the efficiency of the motor is reduced, hence power wastage.
- The power wastage can be reduced by selecting the appropriate rating of the motor for such machines.
- Interchanging of motor may be possible between machines.

VI. Electrical Systems:

Analyzing the performance and Power Quality:

- The total electrical distribution system has been studied for the loading pattern, rating and sizes of the switchgear and cables.
- The measurements are taken for analyzing system performance and power quality which is enclosed as an annexure.
- There are fixed capacitors are provided at the main panel for improvement of power factor from supplier to main panel. But the power factor at various feeders are from 0.5 to 0.9 which are load power factor. Low power factor in loads and equipments causes more current in system ie in cables, switchgears etc.
- The higher current harmonics up to 60% are present in some areas, which are due to linear loads such as UPS and laboratory equipments.
- Due to low power factor and higher harmonics, there is more current and excess heat in the system which leads disturbances in the system and shorten the life of equipments.

Electrical Measurements of feeders from main panelroom

Sl. no	Panel Name		Voltage		Current	Power				Total Harmonics	
		Area feeding	Ph-Ph	Ph-N	Amps	KW	PF	kVAr	kVA	THD(V)	THD(I)
1	SSB-2	Mechanical power	402.4	233.1	10.3	2.05	0.83	1.38	2.45	5.3	61.2
			399	230.7	10.2	1.99	0.84	1.26	2.36	5	61.3
2	PSB-5	C-Blockpower	400.9	232.5	66.1	11.45	0.73	10.45	16.9	5.4	44
			397.8	238.3	81.2	15.8	0.83	10.3	19.08	5.3	34.3
			400.4	229.8	74.4	13.69	0.8	10.14	17.5	4.9	40.6
3	MSB-1	Subpanel	397	230.7	236.9	50.2	0.96	23.5	54.65	5.3	10.5

			393.8	227.5	249	49.38	0.89	24.9	55.24	5.3	10
			398	228	247.5	50	0.88	26	56.03	4.9	10.4
4	SSB-1	Pillarpanel	388	222	49.6	11	0.91	4.9	11.3	5.2	51
			388.2	225	37.5	7.5	0.86	4.32	8.62	5.5	34.7
			385	222.5	43	8.4	0.88	4.3	8.5	5.3	30
5	PSB-1	A-Blockpower	397.5	227.2	32	5.8	0.8	4.11	6.85	6.1	27.5
			398.3	230.4	33.9	4.68	0.8	3.41	5.75	5.8	42.5
			394.9	228.7	21.5	3.06	0.65	3.54	4.7	5.6	20.2
5	PSB-2	A-Blockpower	404.7	234.18	32	3.29	0.68	3.54	4.84	7.9	43.2
			401.6	231.93	33.9	3	0.78	3.25	4.25	8	46
			404.5	233.21	21.5	3.39	0.8	3.26	4.26	8.3	45.5
6	LSB-6	C-BlockLighting	395	226.5	10.2	1.64	0.82	1.1	1.98	5.4	8.8
			395.5	229.3	8.9	1.48	0.73	2.02	1.36	5.5	15.6
			394	227.7	21	3.57	0.74	3.22	4.82	5.3	21.2
7	LSB-2	B-BlockLighting	396.7	228	21.1	3.96	0.86	2.36	4.61	5.5	15
			397.7	230	5.8	1.24	0.93	0.47	1.33	5.3	15
			395.1	228	12.4	2.47	0.88	1.19	2.58	5	8.9
8	LSB-3	PowerRoom	394.6	226	5.9	1.28	0.95	0.41	1.35	5.9	12
			394.5	228	7.2	1.64	1	0	1.64	5.8	12.6
			392.4	225.5	9.2	1.89	0.94	1.2	2.96	5.1	11
9	LSB-7	Polytechnic Lighting	395	227	9.4	2.1	1	0	2.1	5.6	10.3
			395.3	228.5	15	3.58	0.95	1.1	3.76	5.3	15
			392	226	13.1	2.93	1	0	2.93	5	16
10	LSB-1	A-BlockLighting	394.6	227	16.6	3.11	0.82	2.15	3.78	5.7	10.3
			394.9	228.7	16.7	3.06	0.81	2.2	3.78	6	10.5
			392.3	226	23.6	4.63	0.85	2.9	5.5	5	10.5
11	PSB-3	Newpillarpanel	399	229.7	41.8	8.54	0.89	4.17	9.53	5.6	4.6
			398	231	55.9	11.97	0.92	4.9	12.95	5.5	4.7
			394	228	37.1	8.4	0.9	3.92	8.56	4.8	4.8

Recommendations for improvement of the system:

Requirement of capacitors for Power Factor improvement								
Sl.No.	**Description**	**TotalLoad**	**Avg. power**	**Present**	**Afterimprovement**			**Capacitor reqd**
	Panelname	**KW**	**KW**	**PF**	**PF**	**kWhrs**	**Rs. @8/- unit**	**kVAR**
1	MSB-1	473.3	200	0.9	0.99	1839	7355	50
2	SSB-1	110.2	75	0.67	0.99	2295	9180	61
3	PSB-1	115.9	65	0.67	0.99	1381	5522	53
4	LSB-6	22	15	0.5	0.99	8326	33303	23

5	LSB-2	18	10	0.89	0.99	17	67	3
6	LSB-3	20.2	8	0.75	0.99	18	72	5
s7	LSB-7	14	12	0.65	0.99	106	424	10
8	LSB-1	24	15	0.9	0.99	55	221	4
9	LDB-26	3.75	3.75	0.71	0.99	9	36	3
10	PSB-2	43.2	30	0.81	0.99	190	762	16
11	PSB-3	88.1	50	0.7	0.99	1463	5851	40
12	PSB-5	227	120	0.65	0.99	3170	12679	98
13	SSB-2	169.1	120	0.83	0.99	1349	5398	55
						20218	**80872**	**419**

- The Line losses for the distribution cables (UG) was studied and to reduce the losses, the improvement of power factor at loads end is proposed and there by line current and losses are reduced.
- When power losses reduced, the demand is also reduced.

Annual line loss Savings due to improvement in Powerfactor	20218kWhrs	9kVA
Annual savings in amount	Rs.80,872	Rs.2,700
Cost of implementation	Rs.1,25,700	
Pay backperiod	**18 months**	

Switching on and off the fixed capacitors are very difficult according to the power factor variation at switch board panel, at load ends. So the Automatic power factor panel is suggested at selected panels where the power factor is verylow.

APFC panel required for improvement of power factor									
Sl. No.	**Panel name**	**Feeding area**	**KW**	**KW**	**PF**	**PF**	**kWhrs**	**Rs. @8/- unit**	**APFC kVAR**
1	SSB-1	Pillorpanel	110.2	75	0.67	0.99	2295	9180	61
2	PSB-1	A-Blockpower	115.9	65	0.67	0.99	1381	5522	53
3	LSB-6	C-Blocklighting	22	15	0.5	0.99	8326	33303	23
5	PSB-3	Newpillorpanel	88.1	50	0.7	0.99	1463	5851	40
6	PSB-5	C_Blocckpower	227	120	0.65	0.99	3170	12679	98
			563.2	**325**	**0.65**	**0.99**	**16635**	**66535**	**274**

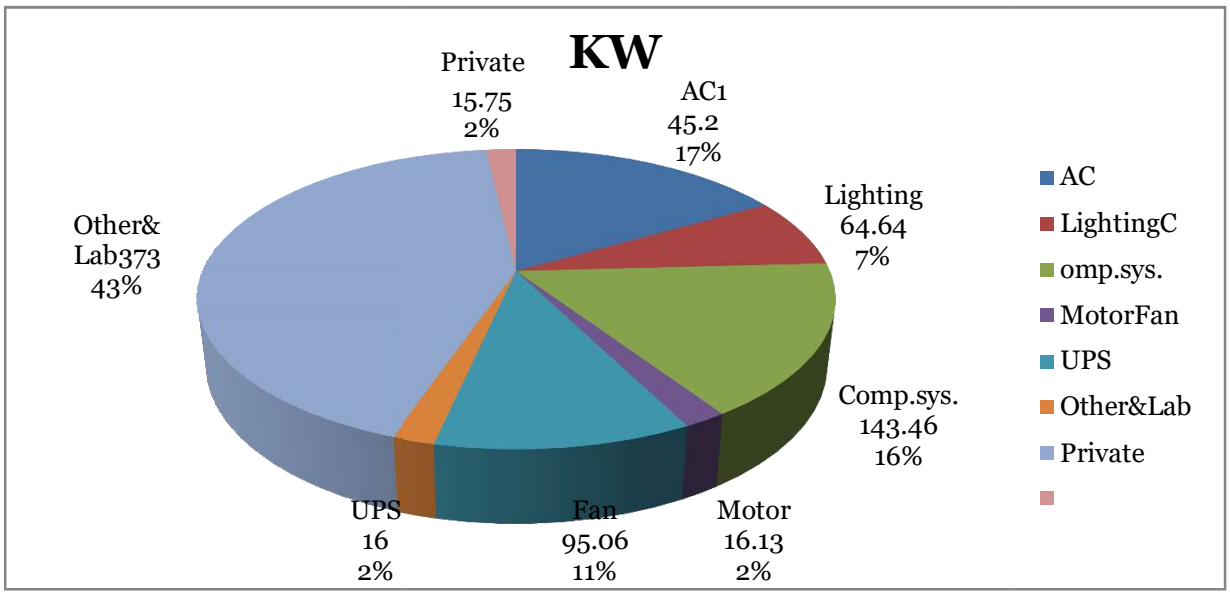
Annual line loss Savings due to improvement in Powerfactor	20218 kWhrs	9 kVA
Annual savings in amount	Rs.80,872	Rs.27,00
Cost of implementation APFC	Rs.3,00,000	
Paybackperiod	**36months**	

Eventhough the payback period is three years, the APFC panel is suitable for improvement of powerfactorand there by reducing line losses, line current and also demand**.**

VII. Analyzing the Electrical Energy usage pattern:

Connected load details categorywise.

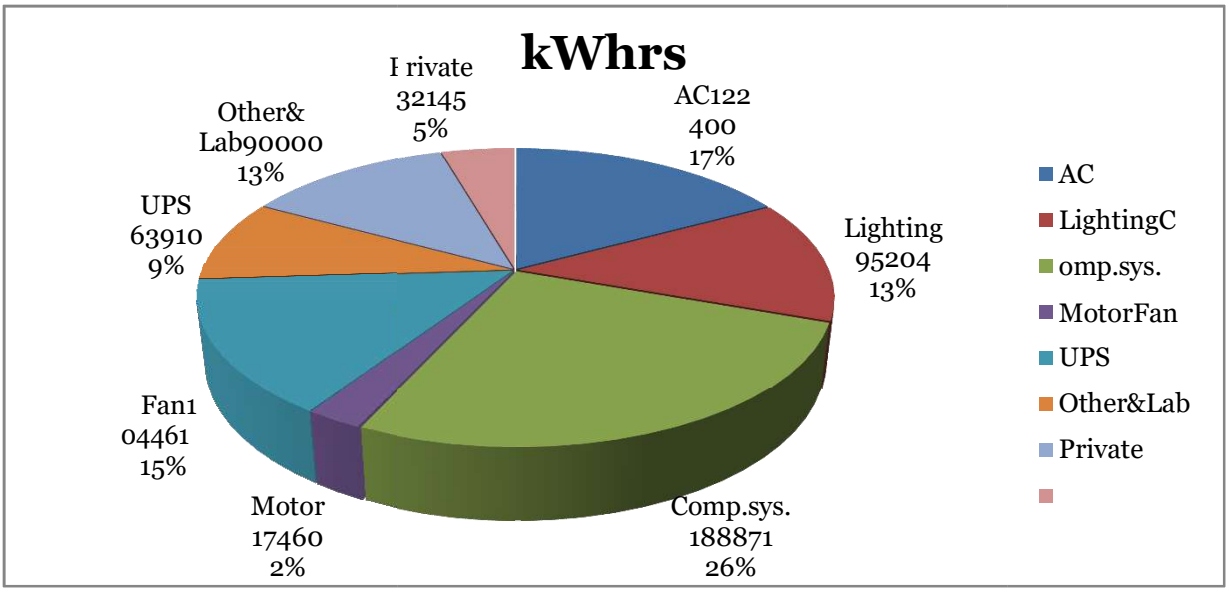
Category	KW
AC	145.2
Lighting	64.64
Computersystems	143.46
Motor	16.13
Fan	95.06
UPS	16
Others &Lab	373
Private	15.75
	869.24



- The graph showing the % of connected load in the university buildings. From this we can Conclude that the Air conditioners and computer systems are the major loads.
- Energy Assessed, Energy usage pattern were studied and tabulated equipment wise.

Approximate assessed annual power consumption:

Category	kWhrs
AC	122400
Lighting	95204
Computersystems	188871
Motor	17460
Fan	104461
UPS	63910
Others& Lab	90000
Private	32145
	714451



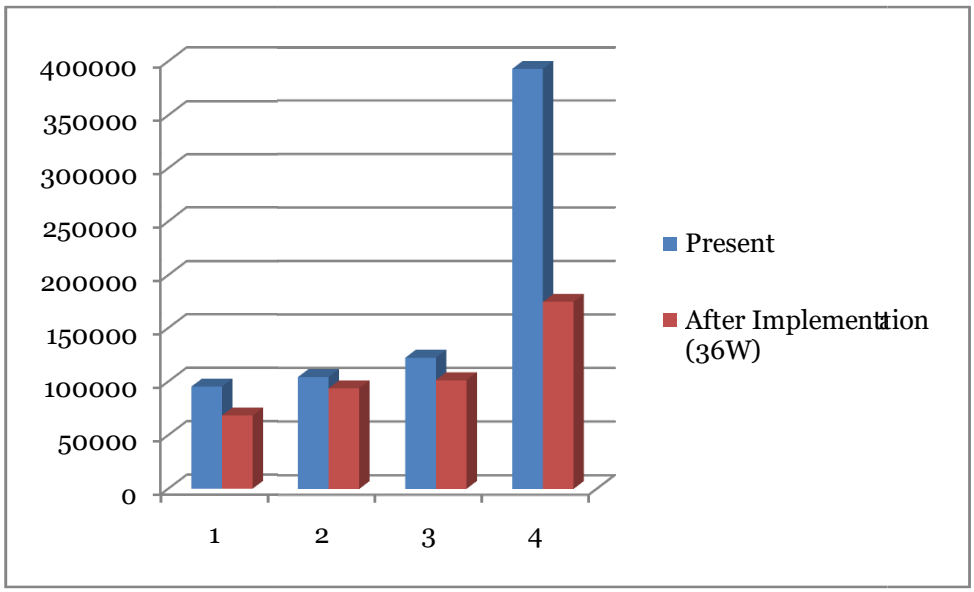
VIII. *Diesel Generator:*

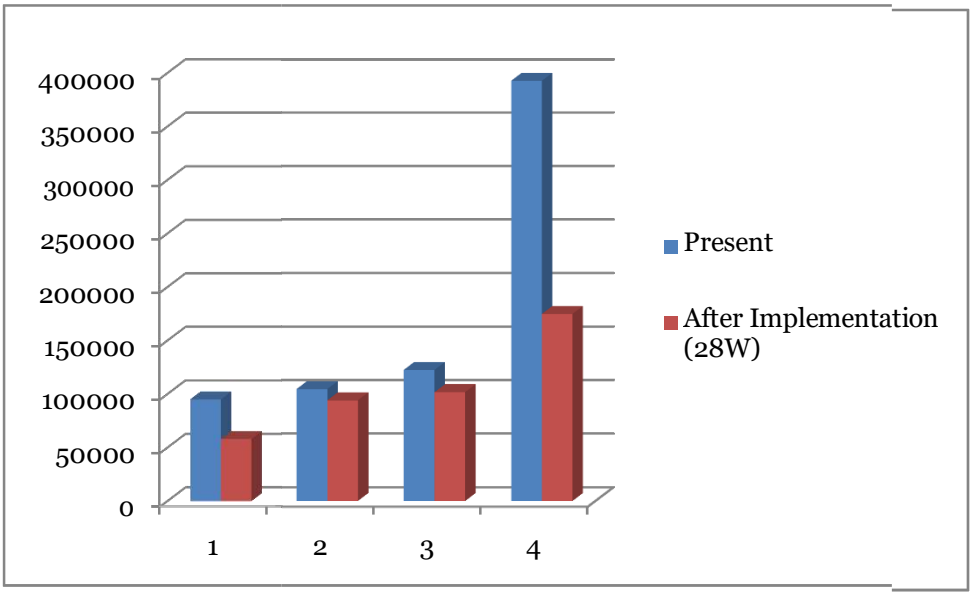
Analyzing the performance:

- Three Nos Diesel generators are available with total capacity of 382.5KVA (250+ 82.5 + 50) for standby supply. The generators with appropriate capacity are operated forrequired load at that time. So the optimum loading is maintained. But the power generated and the diesel consumption are not regularly recorded, the cost of power generated could notworkedout.

IX.Comparison of Consumptions on Implementation of Energy Saving Proposal:

PRIST DEEMED UNIVERSITY-VALLAM,THANJAVUR				
Energy Comparison per anannum on implementation				
		Consumption per annum in kWhrs		
S.No	Description	Present	After Implementation	
1	Lighting **36W/28W**	95204	68298	58020
2	Fan	104461	94015	94015
3	HVAC	122400	101610	101610
4	Power	392386	174698	174698
	Total	**714451**	**438621**	**428343**
Total saving in kWhrs			**275830**	**296108**


400000
350000
300000
250000
200000
150000
100000
50000
0
1
2
3
4
Present
After Implementation (36W)


400000
350000
300000
250000
200000
150000
100000
50000
0
1
2
3
4
Present
After Implementation (28W)

X.General:

- Maintaining of the higher power factor and free from Harmonics the electrical systems will be stable with power quality.

- Choice of correct lighting sources, efficient use of lighting output, energy effective lighting scheme, corrective methods for lighting control and proper maintenance will be useful for better lighting systems.

- The performance of the Air conditioners can be improved by the periodical maintenance like filters & cooling coils cleaning,etc., as per recommended schedule.

LIST Of ANNEXURES	
I	Equipment Details
II	UPS Details
III	Air Conditioners Details
IV	Lighting Details
V	Fan Details
VI	Private Load Details
VII	Computer system details
VIII	Feederwise connected load details
IX	A.C consumption Details
X	Lighting consumption details
XI	Fan consumption details
XII	Computer system consumption details
XIII	UPS consumption details
XIV	Motor consumption details
XV	Private load consumption details
XVI	Panel measurement readings
XVII	UPS measurement readings
XVIII	Capacitor measurement readings
XIX	Motor measurement readings
XX	Street light measurement readings
XXI	Airconditioners BTU calculations
XXII	Assessed load & Annual consumption
XXIII	Lighting wastage calculation
XXIV	UPS Efficiency calculation
XXV	UPS Load
XXVI	Room wise lighting consumption by replacing 40W TL to 36W
XXVII	TL Room wise lighting consumption by replacing 40W TL to 28W
XXVIII	Annual consumption comparison by using 40W,36W,&28WTL
XXIX	Annual consumption comparison by using Dimmers for SVL street lights
XXX	TNEB monthly Consumption charges statement

Contacts for Service providers for implementation proposals:-

1	Foretec Engineers #20Mill Road, IstFloor,Sri Krishna CorporationBuilding, Coimbatore–641001. +919894709040 e-mail:foretec@gmail.com	Energy Savers for Lighting &motors and power factorcorrection and HarmonicsFilters.
2	Unitech Associates Pvt ltd#13, Mooparappan St, T.nagar,Chennai –17. Cell:6526633 Mail:info@unitech.co.in	Electronics Choke and dimmers for HPSV Lamps & Automatic power factor Correction
3	Vijay Energy Product pvt ltd SagarAppartments,G.F, Gopala Krishna road,–18. T.Nagar, Chennai-17. Ph:04428156540. Mail:saveenrgy@vijayenergy.com	Energy saver for Airconditioners

Annexure-I

PRIST DEEMED UNIVERSITY, Westcampus, Vallam

Equipment Details

1.Transformer Details	
Make:	Kirlosker
Rating:	500 KVA
Voltage:	11,000 / 433V
Current:	26.2A /666.7 A
Sl.No:	97 ID344/229
VectorGroup:	DYN11
OilCapacity:	415Lit.

2.Generator Details		
I.(a)	**Alternator:-**	
	Make:	Kirlosker
	Rating:	**250 KVA**
	Voltage:	415 V
	Current:	347.8
	PowerFactor	0.8
	Sl.No:	F606
	RPM:	1500
I.(b)	**Engine:-**	
	Make:	Kirlosker
	Exc:	IP 23
	Rating:	200KW
	RPM:	1500
	Sl.No.	GS3L110F106043
	Alternator:-	
	Make:	Kirlosker
	Rating:	**82.5KVA**
	Voltage:	415 V
	Current:	114.8
	PowerFactor	0.8
	Sl.No:	JL003J8315/9B
	RPM:	1500
II.(b)	**Engine:-**	
	Make:	Kirlosker
	Rating:	67KW
	No.	D6/1691/0300013
	RPM:	1500
III.(a)	**Alternator:-**	
	Make:	Kirlosker
	Rating:	**50 KVA**
	Voltage:	415 V
	Current:	69.6A
	Sl.No:	98E35000-14
	RPM:	1500
III.(b)	**Engine:-**	
	Make:	Kirlosker
	Rating:	56HP
	RPM:	1500

Annexure-II

PRIST DEEMED UNIVERSITY,
Westcampus, Vallam

UPS Details with connected loads

S.No	Location	UPS Details	Details of Systems & loads			
				TFT	CRT	Others
1	ECE Dept. A-Block GroundFloor	30KVA/3Ph. Numeric DC360V, 1082505297 Battery: 30Nos.12V,40AH	NW&D.S.P.Lab	25		1
			Embedded Lab	32		1
			Virtuall Lab	18		1
			Power Electron.Lab	2		
			Total	**77**		**3**
2	PG comp. center A-Block First Floor	30 KVA/3Ph Numeric DC310V Battery: 26Nos.,12V,75AH	Director room	1		
			Main Library	2		1
			Office	1		1
			Exam.Cell	2		3
			Principal room	1		
			PG computer Lab	73		
			Comm.Skills			1
			Conference room.	1		1
			Total	**81**		**7**
3	UG Computer center. B-Block GroundFloor	30 KVA/3Ph Numeric DC 310 V Battery: 26Nos.,12V,75AH	UG Computer Lab-1			3
			UG Computer Lab-2			2
			Total			**12**
4	IT Lab. B-Block Ground Floor	15KVA/3Ph Numeric DC 240No.I104600 635 Battery: 20Nos.,12V,40AH	IT Lab.			2
			B Block examcell	1		1
			Total	**1**		**15**
5	Server room. C-Block First Floor	2Nos.50 KVA, 40KW 3Ph/Numeric,Model:Npe33-50Digital/DC 360 V,3ph.Input:400 V,107.6A 3ph. Output3x230V,72.4A, Sl.no.B010F0129C04 Battery: 30Nos,,12V, 75AH Panasonic	Dean room	1		
			Admission hall			1
			Director	11		1
			Faculty II	1		1
			Computer center-1	96		3
			Internet center	36		3
			Smart classroom	1		1
			Server	7		1
			Computer center-2	36		3
			Computer center-3	96		3
			Sisco Lab	48		2
			Store room	1		
			Pro ViceChancellor	1		1
			Pro-VC Ofiice	2		

			Dean-Science	1		
			Director-Acadamic	1		
			SrAdvisor	1		1
			ProChancellor	2		2
			Officeroom	4		1
			RegistrarOffice	1		1
			CentralAdmn.	3		4
			Director-Dis.Edu	6		2
			ControllerofExam.	1		1
			Addl.Con.Exam.	4		2
			COEoffice	3		1
			DeputyCOE	1		
			Confidentialroom	6		1
			Total	**371**		**36**
6	PRCET Block	5KVA/ 1 Ph/NumericDC240V Battery:20Nos,12V,28AH	R&DDept.			1
			Principalroom			2
			Total			**3**
7	Health Centre	5KVA/1Ph/Numeric Sl.no.111050400705 Battery: 20Nos.,12V, 40AH	Estateoffice	1		
			Cashcounter	2		2
			Total	**3**		**2**
8	A – Block Ground Floor	15KVA/3 Ph /Numeric DC240V Sl.No.06290073 Battery:20Nos,12V,40AH	EEEComputerroom	35		1
			TransducerLab	7		
			Total	**45**		**3**
9	L – Block computer Lab	60KVA / 3Ph/ Numeric Digital, 48KW Model:HPE33-60 Input:3/N/PEAC400/238V,129A Output: 3/N/PEAC400/230V,87A DC360V, Battery:30nos. 12V,65AHNo.B106 B0150C1F	Computercenter-1	180		
			Computercenter-2	75		
			Library			
			Total	**255**		
10	Polytechnic	15KVA/3Ph/NumericSl.no.0629004 Battery: 20Nos.12V	ComputerLab			
			Server	2		2
			Total	**257**		**2**
11	Polytechnic	30 KVA/3Ph/NumericSl.no.07100034 Battery:40 Nos.12V	Officeroom	1		1
			Computercenter			
			Total	**515**		**5**

Annexure-III

PRIST DEEMED UNIVERSITY- VALLAM,THANJAVUR					
Air Conditioner Details					
Sl.No.	**Location**	**1Ton**	**1.5Ton**	**2Ton**	**TotalTon**
I	**Admin Block Groundfloor**				
1	Admission hall		4		6
2	Computer centre-1		2	2	7
3	Internet Centre			2	3
4	Smartclass room		2		3
5	Server room	2			2
6	Computer centre-2			2	3
7	Computer centre-3			4	3
II	**Admin-Block Firstfloor**				
1	Pro-vice Chancellor room		1		1.5
2	Senioradvisor room		1		1.5
3	Prochancellor room			1	2
4	Chancellor room		1	1	4
5	Office room			1	2
6	Vicechancellor room		1		2
7	Registrar room		1		2
8	Central admin room	2			2
III	**Admin Block Second floor**				
1	Controller of examination		1		1.5
2	Addl.Controller of examination		1		1.5
IV	**PolyTechnic, GroundFloor**				
1	ComputerLab		2		3
V	**PolyTechnic, FirstFloor**				
1	Computer centre		2		3
VI	**Healthcentre, GroundFloor**				
1	Server room		1		1.5
VII	**Healthcentre, FirstFloor**				
1	Guestroom-1		1		1.5
2	Guestroom-2		1		1.5
VIII	**B-Block (GroundFloor)**				
1	BiologyLab		1		1.5
2	UG ComputerLab		6		9
3	UG ComputerLab(Server)		1		1.5
IX	**A-Block (GroundFloor)**				
1	DSP Lab		1		1.5
2	Principal room		1		1.5
3	Communication skills-Comp.lab		2		3
4	PG computerLab			4	8
5	Conference Hall		1	5	11.5
X	**L-Block (FirstFloor)**				
1	Computer centre			3	6
2	Computer centre			5	10
3	Library			5	10
				Total	121

Annexure-IV

PRIST DEEMED UNIVERSITY-
VALLAM,THANJAVUR

Roomwise Lighting details

S.No.	Floors	RoomsizeinMts.			Mtce height inMt	Typeo fLamp s	Oper. Hrs.	Watts perLa mp	No. oflam ps	Wall moun	Total Watts
		L	W	H							
1	MV Panel Room	13.1	6.8	3	2.25	TL1X40W	13	55	11	9	605
2	MSB Panel Room	5.4	6	3	2.5	TL1X40W	12	55	4	4	220
3	Civil room	3	3.4	3	2.5	TL1X40W	8	55	1		55
4	Front Room	3.4	3	3	2.5	TL1X40W	8	55	1	1	55
5	Security Room(Office)	2.4	2.3	3	2.5	TL1X40W	12	55	1	1	55
6	Security Room	2.4	2.3	3	2.5	TL1X40W	12	55	1	1	55
	A-Block GROUND FLOOR										
7	Material Room	9.3	7.5	3	2.25	TL1X40W	8	55	4	2	220
8	Store Stack Room	4.9	4	3	2.25	TL1X40W	8	55	1		55
9	Staffroom	7.5	4	3	2.25	TL1X40W	8	55	2		110
10	Class RoomD2,D3,D4.	9.3	7.5	3	2.25	TL1X40W	4	55	4		220
11	EEE ComputerRoom	9.3	7.5	3	2.5	TL1X40W	6	55	4	4	220
12	Transducer Lab	9.3	7.5	3	2.25	TL1X40W	3	55	4		220
13	Varanda(GF)					TL1X40W	12	55	5		275
						CFL65W	12	65	1		65
14	A-BlockToilet					1X2X18CFL	4	40	5		200
15	ClassRoom5,6,7,8,9,11	9.3	7.5	3	2.25	TL1X40W	8	55	2		110
16	Staffroom(Gents)	4.8	3.6	3	2.25	TL1X40W	8	55	1		55
17	Facuty Room	12.5	4	3	2.25	TL1X40W	8	55	3		165
	Varanda					TL1X40W	2	55	1		55
	A -Block-Second floor										
18	ClassRoom11,12,13,14	9.3	7.5	3	2.25	TL1X40W	8	55	2		110
						CFL2X18W	6	36	15		540
19	Conference Room	9.3	7.5	3	2.5	CFL3X36W	4	108	4		432
20	GFToilet (Ladies)					TL1X40W	6	55	1		55
	A-Block (GroundFloor)										
21	Electronic system Designlab	8.1	9.5	3	2.25	CFL2X11W	8	22	9		198
22	Electronic Circuit Lab	8.1	9.6	3	2.25	CFL2X11W	8	22	9		198
23	Digi.sig. Processing Lab	9.7	8.1	3	2.25	CFL2X11W	8	22	9		198
24	VLSI & Embedded Lab	8.1	9.6	3	2.25	CFL2X11W	4	22	9		198
25	H.O.D(E.C.E)	4.6	8.1	3	2.25	CFL2X11W	8	22	4		88
26	Microwave& Fibre OpticsLab	9.3	8.1	3	2.25	CFL3X36W	4	108	5		540
27	Communication Lab	8.1	9.6	3	2.25	CFL2X11W	3	22	9		198
28	Virtual communication Lab	9.5	8.1	3	2.25	CFL2X11W	8	22	8		176
29	Power Electronics Lab	9.3	8.1	3	2.25	CFL2X18W	4	36	9		324
30	Director Room	4.6	8.1	3	2.25	TL1X40W	6	55	4	1	220
31	Main Library	39	8.1	3	2.25	TL1X40W	8	55	16	16	880
32	Electronics Lab	7.2	8.1	3	2.25	TL1X40W	3	55	2		110

B-Block (FirstFloor)											
33	ClassroomsA5,A6,A7,A8,A9.	8.1	9.4	3	2.25	TL1X40W	8	55	4		220
34	StaffRoom	8.1	4.4	3	2.25	CFL2X18W	6	36	6		216
35	OfficeRoom	8.1	9.5	3	2.25	TL1X40W	4	55	4		220
36	officeRoom(Reception)	9.4	8.1	3	2.25	TL1X40W	8	55	6		330
37	ExamCell	9.4	6.1	3	2.25	TL1X40W	8	55	4		220
38	PrincipalRoom					TL2X40W	8	110	2	1	220
						TL1X40W	8	55	1		55
39	P.G.ComputerLab	19.1	8.1	3	2.25	TL2X36W	7	102	12		1224
40	CommunicationSkillsLab	14.3	8.1	3	2.25	TL1X40W	3	55	6		330
41	ConferenceRoom	31	8.1	3	2.25	TL2X40W	3	110	24		2640
		31	8.1	3	2.25	CFL3X36W	2	108	4		432
42	StaffRoom	4.5	8.1	3	2.25	TL1X40W	8	55	1		55
43	Varanda					TL1X40W	2	55	10	8	550
B-Block (SecondFloor)											
44	ClassRoom1,2,3,4	8.1	9.4	3	2.25	TL1X40W	8	55	4		220
45	DrawingRoom	14.7	9.5	3	2.5	TL1X40W	3	55	5	5	275
B-Block (ThirdFloor)											
46	Spareroom	9.6	9.5	3	2.5	TL1X40W	8	55	3	3	165
47	Canteen	31	8.3	3	2.25	TL1X40W	4	55	8		440
	Canteen1stFloor	31	8.3	3	2.25	TL1X40W	2	55	4		220
48	Staffcanteen	6.2	3.3	3	2.25	TL1X40W	4	55	2		110
49	LadiesCanteenLeftSide	6.3	23	3	2.25	TL1X40W	4	55	5		275
50	LadiesCanteenRightSide	6.3	23	3	2.25	TL1X40W	4	55	4		220
51	Kitchen	3.4	9.2	3	2.25	CFL1X36W	8	36	4		144
52	StoreRoom	3.7	3.4	3	2.5	TL1X40W	4	55	1	1	55
B-Block(NEWC)(GroundFloor)											
53	Bio-ProcessLab	8	4.7	3.25	2.75	TL1X40W	4	55	2	2	110
		8	4.7	3.25	2.75	TL1X40W	8	55	2	2	110
54	B2-MolecularBiologylab	8	4.8	3.25	2.75	TL2X40W	1	110	2		220
		8	4.6	3.25	2.75	TL2X40W	8	55	2	2	220
55	Instr.AnalysisLab&chem.Engg. Lab	14.4	8	3	2.5	TL1X40W	3	55	6	2	330
56	PhysicsLab	14.8	8	3	2.25	TL1X40W	1	55	6	6	330
57	CellBiologylab	9.8	8	3	2.5	TL1X40W	6	55	2	2	110
		9.8	8	3	2.25	TL1X40W	6	55	2		110
58	DEANRoom	4.5	8	3	2.25	CFL2X11W	6	22	2		44
		4.5	8	3	2.25	CFL2X18W	6	36	2		72
		4.5	8	3	2.5	CFL1X40W	6	40	1		40
59	MicroBiologyRoom	19.2	8	3	2.375	TL2X40W	10	110	5	2	550
60	UGComputerLab(Centre-1)	14.75	8	3	2.5	TL2X40W	8	110	9		990
		5.3	4.6	3	2.25	TL2X40W	8	110	2		220
		4.6	2.4	3	2.25	TL1X40W	4	55	1		55
61	UGComputerLab(Centre-2)	14.5	8	3	2.25	TL1X40W	8	55	8		440
	Varanda					TL1X40W	12	55	7		385
62	Chemistrylab	19	8	3	2.25	TL2X40W	8	110	8		880

C-Block (FirstFloor)											
63	ClassroomB4,B5,B7,B8,B9,B10,	9.5	8	3	2.5	TL1X40W	2	55	4	48	220
	B11,B12,B13,B14,B15,B16										
64	staffRoomB6	9.5	8	3	2.5	TL1X40W	6	55	4	4	220
65	LadiesstaffRoom	8	4.7	3	2.25	TL1X40W	8	55	2		110
66	I.TLab	14.5	8	3	2.25	TL2X40W	5	110	9	1	990
		14.5	8	3	2.5	TL1X40W	5	55	1		55
C-Block (SecondFloor)											
67	ClassroomB17,B18,B19,B20,B21,B22, B23,B24,B25,B26.(=B4)	9.5	8	3	2.5	TL1X40W	2	55	4		220
68	StaffRoom	8	4.8	3	2.25	TL1X40W	2	55	2		110
69	DirectorRoom	8	4.8	3	2.25	TL1X40W	8	55	2		110
70	B-BlockExamcell										
71	StaffRoom	8	4.5	3	2.25	TL1X40W	8	55	2		110
72	Varanda					TL1X40W	4	55	6		330
						2X11CFL	4	22	2		44
EEE Department (Workshop)											
73	StaffRoom	4.4	4.4	3	2.5	TL1X40W	5	55	1	1	55
74	StoreRoom	4.4	4.4	3	2.25	TL1X40W	8	55	1		55
75	ElectriccircuitsLab	4.4	8.8	3	2.25	TL1X40W	3	55	2	1	110
76	ElectricMachineslab	41	12.2	3	2.25	TL2X40W	4	110	9		990
M-Block (GroundFloor)											
77	StrengthofmaterialsLab	30	11.2	3	2.25	TL1X40W	4	55	14		770
78	BusMechanicroom					TL1X40W	6	55	1		55
M-Block (1stFloor)											
79	Metrology Measurement Lab;DynamicsLab;MechanicsLab;ThermalLab	6.4	11.2	3	2.5	TL1X40W	6	55	4		220
M-Block (2ndFloor)											
80	Classroom1,2,3,4.	6.4	11.2	3	2.5	TL1X40W	6	55	4		220
Newhostel(GroundFloor)											
81	Portico					TL1X40W	12	55	2		110
82	Varanda					TL1X40W	12	55	16		880
83	Hostelroom	5	3.65	3	2.5	TL1X40W	5	55	2	94	110
Mess											
84	StoreRoom-1					TL1X40W	12	55	2	2	110
85	Kitchen					TL1X40W	8	55	3		165
86	Shed					TL1X40W	8	55	6		330
87	SideRoom					TL1X40W	12	55	2	2	110
88	Dininghall					TL1X40W	4	55	14	14	770
89	StoreRoom-2					TL1X40W	2	55	2		110
	Varanda					TL1X40W	8	55	2		110
90	1stFloor,Workersroom					TL1X40W	5	55	2		110

oldHostel											
91	Hostelroom	5	3.6	3	2.25	TL1X40W	5	55	2	144	110
	Toilet					TL1X40W	5	55	2x24x3		144
L-Block(GF)											
92	ClassRooms-9nos	9.1	7.6	3	2.25	TL1X40W	2	55	2		110
	Toilet-2nos					TL1X40W	3	55	4		220
	Varanda					TL1X40W	12	55	1		55
L-Block(1stFloor)											
93	ComputerCentre-1	30	10.3	3	2.25	CFL2X11W	5	22	18		396
		30	10.3	3	2.25	TL1X40W	5	55	1		55
94	ComputerCentre-2	18.5	10.3	3	2.25	CFL2X11W	5	22	21		462
L-Block(2ndFloor)											
95	ElectronicsLab	7.6	14.25	3	2.25	TL1X40W	2	55	3		165
96	Electronics(Digital)lab	7.6	14.25	3	2.25	TL1X40W	2	55	3		165
97	OpticalLab	7.6	14.25	3	2.25	TL1X40W	1	55	3		165
	Varanda					TL1X40W	3	55	3		165
98	Lab(SameasElectroniclab)	7.6	14.25	3	2.25	TL1X40W	2	55	3		165
	Gentstoilet					TL1X40W	2	55	1		55
99	1stFloor,Library	12.3	25.33	3	2.25	CFL2X11W	2	22	39		858
100	Canteen					TL1X40W	2	55	1		55
101	PRCetStore					TL1X40W	5	55	6		330
PRCET Block(GF)											
102	Portico					TL1X40W	12	55	5		275
103	Chemistrylab	19.25	8.2	3	2.25	TL1X40W	6	55	7		385
	R&DDept-Varanda					TL1X40W	12	55	5	2	110
104	Room	14	8.2	3	2.25	TL1X40W	8	55	10		550
PRCET Block(1stfloor)											
	Varanda					TL1X40W	2	55	7		385
105	PrincipalRoom					CFL2X11W	8	22	8		176
106	LadiesstaffRoom	8	8.2	3	2.25	TL1X40W	8	55	5		275
107	LectureHall:E8	6.5	8.2	3	2.25	TL1X40W	4	55	2		110
108	LectureHall:E7	7.2	8.2	3	2.25	TL1X40W	4	55	2		110
109	ElectricCircuitLab:(StaffRom)	10	8.2	3	2.25	TL1X40W	4	55	2		110
110	PhysicsLab	12	8.2	3	2.25	TL1X40W	4	55	5		220
PRCET Block(2ndfloor)											
111	Lecturerhall:E12,E14	12	8.2	3	2.25	TL2X40W	2	110	2		220
112	Lecturerhall:E13	12	8.2	3	2.25	TL2X40W	2	110	2		220
113	ExamCell					TL1X40W	8	55	2		110
114	GentsStaffroom					TL2X40W	2	110	2		110
115	Lecturerhall:E9,E10,E11.	12	8.2	3	2.25	TL2X40W	2	110	2		220
Health Centre:(Block)											
116	EstateOfficeHall	7.62	4.88	3	2.25	TL1X40W	2	55	3	3	165
117	EstateOfficeRoom	4.88	3.66	3	2.25	TL1X40W	8	55	3		165
118	CashCounterRoom	7.62	4.88	3	2.25	TL1X40W	8	55	2		110

Health Centre: (Block-1stfloor)											
	Varanda					TL1X40W	4	55	2		110
119	GuestRoom-1	7.62	4.88	3	2.25	TL1X40W	4	55	4		220
120	GuestRoom-2	7.62	4.88	3	2.25	TL1X40W	4	55	1		55
HealthCentre:(Block-2ndfloor)											
121	Room					TL1X40W	4	55	2		110
Administrative Block -GroundFloor											
122	Reception	4.7	4.6	2.5	1.75	CFL2X11W	8	22	3		66
123	DeanRoom	4.7	4.6	3	2.25	TL1X40W	8	55	2	2	110
124	Admissionhall	14.2	10.2	2.5	1.75	CFL2X18W	4	36	24		864
125	DirectorRoom	4.1	2.5	2.5	1.75	CFL2X18W	8	36	1		36
126	FacutyRoom-2	4.1	9	2.5	1.75	CFL2X18W	6	36	6		216
127	FacutyRoom-1	2.4	4.1	2.5	1.75	CFL2X18W	6	36	1		36
	Toilet					TL1X40W	2	55	2		110
128	ComputerCentre-1	19	9.4	2.5	1.75	CFL2X11W	6	22	32		704
129	Varanda					TL1X40W	12	55	5		275
						2X18W	12	40	5		200
130	InternetCentre	9.3	9.3	**2.5**	1.75	CFL2X11W	3	22	16		352
131	SmartClassRoom	10.6	8.4	2.5	1.75	CFL2X11W	5	22	12		264
132	ServerRoom	2.2	10.6	3	2.25	TL1X40W	8	55	2		110
133	ComputerCentre-2	9.3	9.3	2.5	1.75	CFL2X11W	6	22	16		352
134	Computercenter-3	19	9.4	2.5	1.75	CFL2X11W	13	22	32		704
135	Entrance(SameAsReception)	4.7	4.6	2.5	1.75	CFL2X11W	8	22	1		22
136	SISCOLab	7.2	14.5	2.5	1.75	CFL2X18W	6	36	13		468
137	ComputerHarrdwareRoom	7	14.5	2.5	1.75	CFL2X18W	5	36	11		396
Administrative Block-FirstFloor											
138	StoreRoom					TL1X40W	8	55	3		165
						TL2X40W	8	110	6		660
						CFL2X18W	8	36	6		216
139	Room					TL1X40W	8	55	1		55
140	Pro-ViceChancellorRoom	4.7	4.4	2.5	1.75	CFL2X18W	8	36	4		144
141	Dr.M.GopalSirRoom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	3		108
142	Dean-Science&Humanities	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1		36
143	Director-AcademicAffairs	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1		36
144	SeniorAdvisorRoom1	4.7	4.4	3	2.25	TL1X40W	8	55	1		55
145	SeniorAdvisorRoom2	4.4	4.6	2.5	1.75	CFL2X18W	8	36	4		144
146	Visitorroom	9.4	3.2	3	2.5	TL1X40W	8	55	2		110
147	Pro-ChancellorRoom	5.8	6.1	2.5	1.75	CFL2X18W	6	36	5		180
148	OfficeRoom-Front	4.4	3.6	3	2.5	TL1X40W	8	55	1		55
149	OfficeRoom	7.3	9.1	2.5	1.75	CFL2X18W	8	36	7		252
150	ServiceRoom	5.6	3.2	2.5	1.75	CFL1X18W	12	18	1		18
151	Varanda	5.6	3.2	3	2.25	TL1X40W	12	55	1		55
152	Vice-Chancellor(VisitorsRoom)	4.8	3.4	2.5	1.75	CFL2X18W	8	36	2		72
153	MainRoom	9.4	5.9	2.5	1.75	CFL2X18W	8	36	7		252
154	RecordsRoom	3.1	4.5	2.5	1.75	CFL2X18W	6	36	2		72

155	RegisterOffice-FrontRoom	4.4	4.7	3	2.5	TL1X40W	8	55	2		110
156	Otherroom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	2		72
157	RegistrarRoom	4.7	9.4	2.5	1.75	CFL2X18W	8	36	4		144
	Toilet					TL1X40W	6	55	1		55
158	Central-AdministrationOffice	4.7	4.6	3	2.25	TL1X40W	8	55	1		55
	FrontRoom	4.7	4.6	3	2.25	TL1X40W	2	55	1		55
159	MainRoom	14	13.9	3	2.25	TL1X40W	8	55	13	5	665
		14	13.9	3	2.25	TL1X28	8	30	2		60
Administrative Block -SecondFloor											
160	ExamCellRoom	12.9	14.1	3	2.5	TL2X40W	8	110	8	4	880
161	StudentsMaterialswarehouse	9.5	9.4	3	2.5	TL1X40W	8	55	2		110
		9.5	9.4	3	2.5	TL1X40W	8	55	2		110
162	Director-DistanceEducation	9.3	9.3	3	2.25	TL1X40W	8	55	4		440
163	ControllerofExam.(Frontroom)	6.4	2.5	2.5	1.75	CFL2X18W	8	36	2		72
164	MainRoom	6.4	6	2.5	1.75	CFL2X18W	8	36	5		180
165	Addl.Con.ofExam.(FrontRoom)	4.7	4.6	3	2.25	TL1X40W	8	55	1	1	55
166	Room	6.1	4.6	2.5	1.75	CFL2X11W	8	22	4		88
167	Office-1	10.6	4	3	2.25	TL1X40W	8	55	2		110
168	Office-2	9.4	4.5	3	2.25	TL1X40W	8	55	2		110
169	COEOffice	9.4	5.2	3	2.25	TL1X40W	8	55	2		110
170	DeputyCOE	4.1	3.3	2.5	1.75	CFL2X11W	8	22	3		66
171	ConfidentialRoom-1	6.1	3.3	2.5	1.75	CFL2X11W	8	22	6		132
172	ConfidentialRoom-2	9.4	9.4	3	2.25	TL1X40W	4	55	5		275
Polytechnic Block											
173	ElectricMachineslab	42	6	3	2.25	TL1X40W	8	55	8		440
174	MechanicalWorkshop	42	12	3	2.25	TL2X40W	4	110	14		1760
						TL1X40W	4	55	4		220
175	ComputerLab	12.2	9.2	2.5	1.75	TL2X40W	4	110	9		990
176	SMLab	12.2	9.2	3	2.25	TL1X40W	4	55	4	4	220
177	FMLab	13.9	12.2	3	2.25	TL1X40W	4	55	5	5	275
178	ThermalEngg.Lab	14.4	12.2	3	2.25	TL1X40W	6	55	5		275
Polytechnic Block (1stFloor)											
179	StaffRoom	7.3	2.8	3	2.25	TL1X40W	8	55	1		55
180	Chemistrylab	9.3	9.2	3	2.25	TL1X40W	4	55	2		110
181	PhysicsLab	9.5	9.2	3	2.25	TL1X40W	4	55	2		110
182	ClassRoom	9.5	9.2	3	2.25	TL1X40W	4	55	2		110
183	ElectronicsDeviceLab	9.5	9.2	3	2.25	TL1X40W	4	55	2		110
184	OfficeRoom	9	5.9	3	2.25	TL1X40W	8	55	3	3	165
185	Lab	9.2	9.1	3	2.25	TL1X40W	4	55	2		110
186	ComputerCentre	13.2	9.1	3	2.25	TL1X40W	4	55	10	4	550
187	ClassRoom	18.8	9.1	3	2.25	TL1X40W	4	55	2		110
188	StaffRoom	9.1	4.4	3	2.25	TL1X40W	8	55	2		110
189	ClassRooms1,2,3,4,5,7,8,9,10,11	9.2	9.1	3	2.25	TL1X40W	6	55	2		110
190	ClassRoom6										

Administration Block (1stfloor)											
191	ChancellorRoom-1	6	3.4	3	2.25	TL1X40W	4	55	2		110
192	FrontRoom	10.6	3.1	2.5	1.75	CFL2X18W	8	36	4		144
193	MainRoom	7.4	6.4	2.5	1.75	CFL2X18W	4	36	6		216
Street Light											
194	PanelRoom	St.light-1				250WSVL	12	270	4		1080
195		St.light-2				250WSVL	12	270	7		1890
196	PillorBox	St.light-3				250WSVL	12	270	15		4050
									1120	**419**	**62881**

Annexure-V

PRIST DEEMED UNIVERSITY-VALLAM,THANJAVUR							
Fan Details							
S.No.	**Floors**	**Ceiling**	**Pedastal**	**Wall mounted**	**Exaust**	**Total Watts**	**Oper. Hrs.**
		80W	**60W**	**55W**	**50W**		
1	MVPanelRoom	3	1			300	8
2	MSBPanelRoom	2				160	8
3	Civilroom-oldest.of	1				80	8
4	FrontRoom	1				80	8
5	SecurityRoom(Office)	1				80	12
6	SecurityRoom	1				80	12
A-Block-GROUNDFLOOR							
7	MaterialRoom	2				160	8
8	StoreStackRoom						8
9	Staffroom	2				160	8
10	ClassRoomD2,D3,D4.	12				960	4
11	EEEComputerRoom	4				320	6
12	TransducerLab	4				320	3
15	ClassRoom5,6,7,8,9,11	24				1920	
16	Staffroom(Gents)	1				80	8
17	FacutyRoom	3				240	8
D-Block-SECONDFLOOR							
18	ClassRoom11,12,13,14	16				1280	8
19	ConferenceRoom(DrawingRoom)	8				640	8
A-Block(GroundFloor)							
21	ElectronicsystemDesignlab	4				320	4
22	ElectronicCircuitLab	4				320	
23	NW&Digi.sig.ProcessingLab	4				320	8
24	VLSI&EmbeddedLab	4				320	8
25	H.O.D(E.C.E)	4				320	4
26	Microwave&FibreOpticsLab	4				320	4
27	CommunicationLab	4				320	8
28	virtualcommunicationLab	4				320	4
29	PowerElectronicsLab	4				320	3
31	MainLibrary	16				1280	8
32	ElectronicsLab	3				240	4
B-Block (FirstFloor)							
33	ClassroomsA5,A6,A7,A8,A9.	20				1600	3
34	StaffRoom	3				240	
35	OfficeRoom	4				320	8
36	officeRoom(Reception)	6				480	6
37	ExamCell	4				320	8
38	PrincipalRoom						8
39	P.G.ComputerLab	8				640	8
40	CommunicationSkillsLab	1				80	8
41	ConferenceRoom	16				1280	8
42	StaffRoom	2				160	7

B-Block (SecondFloor)							
44	ClassRoom1,2,3,4	16				1280	
45	DrawingRoom	6				480	2
B Block (ThirdFloor)							
46	Spareroom	2				160	
47	Canteen	8				640	8
	Canteen1stFloor						3
48	Staffcanteen	1				80	
49	LadiesCanteenLeftSide	7				560	8
50	LadiesCanteenRightSide	4				320	4
51	Kitchen				2	140	2
52	StoreRoom	1				80	4
C-Block (GroundFloor)							
53	Bio-ProcessLab	4				320	4
54	B2-MolecularBiologylab	4				320	8
55	Instr.Anly.Lab&chem.Engg.Lab	6				480	4
56	PhysicsLab	5		1		455	
57	CellBiologylab	4				320	4
58	DEANRoom	2				160	8
59	MicroBiologyRoom	6		1		535	1
60	UGComputerLab(Centre-1)	6				480	8
61	UGComputerLab(Centre-2)	6				480	3
62	Chemistrylab	1			4	280	1
C-Block (FirstFloor)							
63	ClassroomB4,B5,B7,B8,B9,B10,	48				3840	
	B11,B12,B13,B14,B15,B16						6
64	staffRoomB6	4				320	6
65	LadiesstaffRoom	2				160	6
66	I.TLab	6				480	10
C-Block (SecondFloor)							
67	ClassroomB17,B18,B19,B20,B21,B22, B23,B24,B25,B26.(=B4)	40				3200	8
		2				160	4
68	StaffRoom	2				160	8
69	DirectorRoom	2				160	8
70	B-BlockExamcell	4				320	
71	StaffRoom	2				160	6
EEE Department (Workshop)							
73	StaffRoom	2				160	6
74	StoreRoom	1				80	8
75	ElectriccircuitsLab	2				160	5
76	ElectricMachineslab	19				1520	5
77	StrengthofmaterialsLab	6				480	6
78	BusMechanicroom	1				80	
M-Block(1stFloor)							
79	Metrology&Measurement, Dynamics,Mechanics,ThermalLab	4				320	8
M-Block(2ndFloor)							
80	Classroom1,2,3,4.	16				1280	8

Newhostel(GroundFloor)							
83	Hostelroom	96				7680	5
Mess							8
84	StoreRoom-1	1				80	3
85	Kitchen				1	50	4
86	Shed						
87	SideRoom	1				80	4
88	Dininghall	13				1040	6
89	StoreRoom-2	1				80	
90	1stFloor,Workersroom	4				320	6
OldHostel							
91	Hostelroom	144				11520	6
L-Block(GF)							
92	ClassRooms-9nos	36				2880	12
93	ComputerCentre-1	18				1440	
94	ComputerCentre-2	12				960	12
L-Block(2ndFloor)							
95	ElectronicsLab	6				480	8
96	Electronics(Digital)lab	6				480	12
97	OpticalLab	6				480	4
98	Lab(SameasElectroniclab)	6				480	2
99	1stFloor,Library	18				1440	5
101	PRCetStore	3				240	
PRCETBlock(GF)							
103	Chemistrylab	8				640	
104	Room	9				720	
PRCET Block(1stfloor)							
105	PrincipalRoom	2				160	
106	LadiesstaffRoom	4				320	
107	LectureHall:E8	2				160	
108	LectureHall:E7	3				240	5
109	ElectricCircuitLab:(StaffRom)	3				240	5
110	PhysicsLab	3				240	5
PRCET Block(2ndfloor)							
111	Lecturerhall:E12,E14	4				320	3
112	Lecturerhall:E13	3				240	3
113	ExamCell	2				160	3
114	GentsStaffroom	4				320	3
115	Lecturerhall:E9,E10,E11.	12				960	
Health Centre:(Block)							
116	EstateOfficeHall	2				160	5
117	EstateOfficeRoom	2				160	
118	CashCounterRoom	2				160	6
Health Centre:(Block-1stfloor)							
119	GuestRoom-1	3				240	
120	GuestRoom-2	2				160	8
Health Centre:(Block-2ndfloor)							
121	Room	4				320	4

Administrative Block-GroundFloor							
122	Reception	1				80	4
123	DeanRoom	1				80	4
124	Admissionhall	6				480	
125	DirectorRoom	1				80	4
126	FacutyRoom-2	3				240	2
127	FacutyRoom-1	1				80	8
128	ComputerCentre-1	12				960	8
130	InternetCentre	6				480	4
131	SmartClassRoom	6				480	
132	ServerRoom						2
133	ComputerCentre-2	6				480	8
134	Computercenter-3	12				960	8
136	SISCOLab	6				480	
137	ComputerHarrdwareRoom	6				480	4
Administrative Block-FirstFloor							
138	StoreRoom	3				240	
139	Room	1				80	4
140	Pro-ViceChancellorRoom	1				80	
141	Dr.M.GopalSirRoom	1				80	8
142	Dean-Science&Humanities	1				80	8
143	Director-AcademicAffairs	1				80	4
144	SeniorAdvisorRoom1	1				80	8
145	SeniorAdvisorRoom2	1				80	6
146	Visitorroom	2				160	6
147	Pro-ChancellorRoom	2				160	6
148	OfficeRoom-Front	1				80	3
149	OfficeRoom	3				240	5
151	Varanda	2				160	8
152	Vice-Chancellor(VisitorsRoom)	1				80	6
153	MainRoom	1			1	130	13
154	RecordsRoom	1				80	6
155	RegisterOffice-FrontRoom	2				160	5
156	Otherroom	2				160	
157	RegistrarRoom	2				160	8
158	Central-AdministrationOffice	1				80	8
	FrontRoom	1				80	8
159	MainRoom	14				1120	
Administrative Block-SecondFloor							
160	ExamCellRoom	6				480	8
161	StudentsMaterialswarehouse	3				240	4
162	Director-DistanceEducation	5				400	6
163	ControllerofExam.(Frontroom)	1				80	8
164	MainRoom	3			1	290	8
165	Addl.Con.ofExam.(FrontRoom)	1				80	8
166	Room	2				160	6
167	Office-1	3				240	8
168	Office-2	3				240	8
169	COEOffice	3				240	
170	DeputyCOE	1				80	4
171	ConfidentialRoom-1	2				160	6
172	ConfidentialRoom-2	5				400	8

Polytechnic Block							
173	ElectricMachineslab	2				160	8
174	MechanicalWorkshop	3				240	8
175	ComputerLab	7				560	8
176	SMLab	2				160	8
177	FMLab	1				80	2
178	ThermalEngg.Lab	2				160	8
Polytechnic Block(1stFloor)							
179	StaffRoom	1				80	
180	Chemistrylab	4				320	8
181	PhysicsLab	4				320	8
182	ClassRoom	4				320	8
183	ElectronicsDeviceLab	4				320	8
184	OfficeRoom	3				240	8
185	Lab	4				320	8
186	ComputerCentre	6				480	8
187	ClassRoom	8				640	8
188	StaffRoom	3				240	8
189	ClassRooms1,2,3,4,5,7,8,9,10,11	60				4800	8
190	ClassRoom6	4				320	8
Administration Block(1stfloor)							
191	ChancellorRoom-1	1				80	8
192	FrontRoom	3				240	4
193	MainRoom	3				240	
		1180	**1**	**2**	**9**	**95060**	

Annexure-VI

Private service provider's loads				
		KW	**Qty.**	**Load**
	Canteen			
1	Fridge	1.6	1	1.6
2	Grinder	0.75	1	0.75
3	Mixy	0.75	1	0.75
	Mess			
1	Fridge	0.75	1	0.75
2	Grinder	0.75	6	4.5
3	Mixy	0.75	2	1.5
4	WaterPurifier	0.25	1	0.25
	Canteen			
1	Fridge	0.25	2	0.5
2	Coffemachine	0.75	1	0.75
3	Xerox	0.25	3	0.75
4	Heater	1	1	1
ATMcenter				
1	ATM M/C	0.25	1	0.25
2	Airconditioner	1.2	2	2.4
				15.75

Annexure-VII

PRIST DEEMED UNIVERSITY- VALLAM,THANJAVUR

Computer System consumption details

1	Location	UPSDetails	DetailsofSystems&loads			PowerinWatts			TotalWatts
				TFT	Others	TFT		Others	
2	ECE Dept. A-Block Ground Floor	30KVA/3Ph. Numeric/DC360V,	NW&D.S.P.Lab	25	1	2425		100	2525
			EmbeddedLab	32	1	3104		100	3204
			VirtualInstr.Lab	18	1	1746		100	1846
			PowerElectron.Lab	2		194		0	194
3	PGcomp.centerA-Block FirstFloor	30KVA/3Ph Numeric/DC310V	Directorroom	1		97		0	238
			MainLibrary	2	1	194		100	294
			Office	1	1	97		100	197
			Exam.Cell	2	3	194		300	494
			Principalroom	1		97		0	97
			PGcomputerLab	73		7081		0	7081
			Comm.Skills		1	0		100	4612
			Conferenceroom.	1	1	97		100	197
4	UG Computercenter. B-Block GroundFloor	30KVA/3Ph Numeric/DC310V	UGComputerLab-1		3	0		300	9183
			UGComputerLab-2		2	0		200	8096
						0		0	0
						0		0	0
5	ITLab. B-Block GroundFloor	15KVA/3Ph Numeric/DC240V	ITLab.		2	0		200	7814
			BBlockexamcell	1	1	97		100	197
						0		0	0
						0		0	0
6	Server room.C-	2Nos.50KVA	Deanroom	1		97		0	238
			Admissionhall		1	0		100	100
			Director	11	1	1067		100	1167
			FacultyII	1	1	97		100	620
			Computercenter-1	96	3	9312		300	9612
			Internetcenter	36	3	3492		300	3792
			Smartclassroom	1	1	97		100	197
			Server	7	1	679		100	779
			Computercenter-2	36	3	3492		300	3792
			Computercenter-3	96	3	9312		300	9612
			SiscoLab	48	2	4656		200	4856

	Block	3Ph/NumericDigital/DC360V	Storeroom	1		97		0	97
			ProviceChancellor	1	1	97		100	197
			Pro-VC office	2		194		0	194
			Dean-Science	1		97		0	97
			Director-Acadamic	1		97		0	97
			SrAdvisor	1	1	97		100	197
			ProChancellor	2	2	194		200	394
			Officeroom	4	1	388		100	488
			RegistrarOffice	1	1	97		100	197
			CentralAdmn.	3	4	291		400	691
			Director-Dis.Edu	6	2	582		200	782
			ControllerofExam.	1	1	97		100	197
			Addl.Con.Exam.	4	2	388		200	588
			COEoffice	3	1	291		100	391
			DeputyCOE	1		97		0	97
			Confidentialroom	6	1	582		100	682
7	PRCET Block	5KVA/ 1 Ph/Numeric DC240V	R&DDept.		1	0		100	1933
			Principalroom		2	0		200	764
			Exam.Cell		1	0		100	382
8	Health Centre	5KVA/ 1 Ph/NumericDC240V	Estateoffice	1		97		0	97
			Cashcounter	2	2	194		200	394
9	D-Block Ground Floor	15KVA/3 Ph/NumericDC240V	EEEComputerroom	35	1	3395		100	3495
			TransducerLab	7		679		0	679
						0		0	0
10	L – Block computer Lab	60KVA/3Ph/NumericDigital DC360V	Computercenter-1	180		17460		0	17460
			Computercenter-2	75		7275		0	13620
			Library			0		0	282
						0		0	0
11	Polytechnic-I	15KVA/3Ph Numeric	ComputerLab			0		0	7050
			Server	2	2	194		200	394
						0		0	0
						0		0	0
12	Polytechnic-II	30KVA/3Ph Numeric DC 240V	Officeroom	1	1	97		100	479
			Computercenter			0		0	10011
						0		0	0
						0		0	0
			InWatts			**80801**		**6400**	**143460**
		335kVA	**InKiloWatts**	**833**	**64**	**80.801**		**6.4**	**143.46**

AnnexureVIII

PRIST DEEMED UNIVERSITY,Westcampus,Vallam

Feeder wise connected load details

Sl. No.	From	To	Nameofpanel	Cablesize Sq.mm	KW	HP	HP/KW	Total KW	Average PF	Total kVA
1	MainMVpanel	MSB-1		400	428.55	59.7	44.8	473.3	0.85	557
2	MSB-1	SSB-1	Pillarpanel	240	80.75	39.25	29.4	110.2	0.85	130
3	MSB-1	PSB-1	A-Blockpower	150	104.6	15	11.25	115.9	0.76	152
4	MSB-1	LSB-6	C-Blocklighting	95	22	0	0	22	0.79	28
5	MSB-1	LSB-2	B–Blocklighting	50	18	0	0	18	0.86	21
6	MSB-1	LSB-3	Powerroom	50	20.2	0	0	20.2	0.96	21
7	MSB-1	LSB-7	Polytechniclighting	50	14	0	0	14	0.98	14
8	MSB-1	LSB-1	A-Blocklighting	35	24	0	0	24	0.83	29
9	MSB-1	LDB-26	Neonshinelamp	4		0	0	0		5
10	MSB-1	DSB-2	B-Blockpower	120	5.7	50	37.5	43.2	0.8	54
11	MSB-1	PSB-3	Newpillarpanel	120	88.1	0	0	88.1	0.9	98
12	MainMVpanel	PSB-5	C-Blockpower	240	227	0	0	227	0.8	284
13		SSB-2	Mech.Power	185	35.2	178.5	133.875	169.075	0.83	204

AnnexureIX

PRIST DEEMED UNIVERSITY-

Roomwise AC consumption details

Sl.No.	Location	AC Available		Operating hours	Consm perday	Consm permon	Annual Consm
		Ton					
I	**Admin block ground floor**						
1	Admission hall	6	1.5T–4Nos	4	28.8	720	7200
2	Computer centre-1	7	1.5T-2,2T-2	6	50.4	1260	12600
3	Internet Centre	3	2T–2Nos	3	10.8	270	2700
4	Smart classroom	3	1.5T–2Nos	4	14.4	360	3600
5	Server room	2	1T-2Nos	6	14.4	360	3600
6	Computer centre-2	3	2T–2Nos	6	21.6	540	5400
7	Computer centre-3	3	2T–4Nos	6	21.6	540	5400
II	**Admin bloc First floor**						
1	Pro-vice chancellor room	1.5	1.5T–1No	4	7.2	180	1800
2	Senior advisor room	1.5	1.5T–1No	6	10.8	270	2700
3	Pro-chancellor room	2	2T–1No	4	9.6	240	2400
4	Chancellor room	4	2T -1,1.5-1	4	19.2	480	4800
5	Office room	2	2T–1No	6	14.4	360	3600
6	Vice chancellor room	2	1.5T–1No	6	14.4	360	3600
7	Registrar room	2	1.5T–1No	6	14.4	360	3600
8	Central admin room	2	1T-2Nos	6	14.4	360	3600
III	**Admin Block Second floor**						
1	Controller of examination	1.5	1.5T–1No	4	7.2	180	1800
2	Addl.Contr.ofexam.	1.5	1.5T–1No	4	7.2	180	1800
IV	**PolyTechnic GroundFloor**						
1	Computer Lab	3	1.5T–2Nos	6	21.6	540	5400
V	**PolyTechnic FirstFloor**						
1	Computer centre	3	1.5T–2Nos	4	14.4	360	3600
VI	**Healthcentre Ground Floor**						
1	Server room	1.5	1.5T-1n0	18	32.4	810	8100
VII	**Health centre First Floor**						
1	Guestroom-1	1.5	1.5T-1no	4	7.2	180	1800
2	Guestroom-2	1.5	1.5T-1no	4	7.2	180	1800
VIII	**B-Block (GroundFloor)**						
1	BiologyLab	1.5	1.5-1no	6	10.8	270	2700
2	UG ComputerLab	9	1.5-6nos	6	64.8	1620	16200
3	UG ComputerLab(Server)	1.5	1.5-1no	6	10.8	270	2700
IX	**A-Block (GroundFloor)**						
1	DSP Lab	1.5	1.5-1no	6	10.8	270	2700
2	Principal room	1.5	1.5	6	10.8	270	2700
3	Comm.skills-Comp.lab	3	1.52nos	4	14.4	360	3600
4	PG computerLab	8	2T-4nos	6	57.6	1440	14400
5	Conference Hall	11.5	2T-5,,1.5T-1	2	27.6	690	6900
6							
X	**L-Block (FirstFloor)**						
1	Computer centre	6	2T-3nos	6	43.2	1080	10800
2	Computer centre	10	2T-5nos	6	72	1800	18000
3	Library	10	2T-5nos	4	48	1200	12000
		121			**734.4**	**18360**	**183600**
		With Diversity Factor-1.5					**122400**

AnnexureX

PRIST DEEMED UNIVERSITY-
VALLAM,THANJAVUR

RoomwiseLightingConsumtiondetails

S.No.	Floors	RoomsizeinMts.			Mtce height inMt	Typeo fLamp s	Oper. Hrs.	Watts perfit ting	No. oflam ps	Total Watts	Working days	Annual Consn KWhrs
		L	W	H								
	FrontArea											
1	MVPanelRoom	13.1	6.8	3	2.25	TL1X40W	13	55	11	605	365	2871
2	MSBPanelRoom	5.4	6	3	2.5	TL1X40W	12	55	4	220	365	964
3	Civilroom-oldest.of	3	3.4	3	2.5	TL1X40W	8	55	1	55	200	88
4	FrontRoom	3.4	3	3	2.5	TL1X40W	8	55	1	55	250	110
5	SecurityRoom(Office)	2.4	2.3	3	2.5	TL1X40W	12	55	1	55	365	241
6	SecurityRoom	2.4	2.3	3	2.5	TL1X40W	12	55	1	55	365	241
	A Block GROUND FLOOR											**4514**
7	MaterialRoom	9.3	7.5	3	2.25	TL1X40W	8	55	4	220	250	440
8	StoreStackRoom	4.9	4	3	2.25	TL1X40W	8	55	1	55	251	110
9	Staffroom	7.5	4	3	2.25	TL1X40W	8	55	2	110	250	220
10	ClassRoomD2,D3,D4.	9.3	7.5	3	2.25	TL1X40W	4	55	12	660	250	660
11	EEEComputerRoom	9.3	7.5	3	2.5	TL1X40W	6	55	4	220	250	330
12	TransducerLab	9.3	7.5	3	2.25	TL1X40W	3	55	4	220	250	165
13	Varanda(GF)					TL1X40W	12	55	5	275	250	825
						CFL65W	12	65	1	65	250	195
14	D-BlockToilet					1X2X18CFL	4	40	5	200	250	200
	A-Block -FirstFLOOR											**3145**
15	ClassRoom5,6,7,8,9,11	9.3	7.5	3	2.25	TL1X40W	8	55	12	660	250	1320
16	Staffroom(Gents)	4.8	3.6	3	2.25	TL1X40W	8	55	1	55	250	110
17	FacutyRoom	12.5	4	3	2.25	TL1X40W	8	55	3	165	250	330
	Varanda					TL1X40W	2	55	1	55	250	28
	A-Block-SECONDFLOOR											**1788**
18	ClassRoom11,12,13,14	9.3	7.5	3	2.25	TL1X40W	8	55	8	440	250	880
						CFL2X18W	6	36	15	540	250	810
19	ConferenceRoom(Drawing	9.3	7.5	3	2.5	CFL3X36W	4	108	4	432	200	346
20	GFToilet(Ladies)					TL1X40W	6	55	1	55	250	83
	B-Block (GroundFloor)											**2118**
21	ElectronicsystemDesignlab	8.1	9.5	3	2.25	CFL2X11W	8	22	9	198	250	396
22	ElectronicCircuitLab	8.1	9.6	3	2.25	CFL2X11W	8	22	9	198	250	396
23	NW&Digi.sig.ProcessingLab	9.7	8.1	3	2.25	CFL2X11W	8	22	9	198	250	396
24	VLSI&EmbeddedLab	8.1	9.6	3	2.25	CFL2X11W	4	22	9	198	250	198
25	H.O.D(E.C.E)	4.6	8.1	3	2.25	CFL2X11W	8	22	4	88	250	176
26	Microwave&FibreOpticsLab	9.3	8.1	3	2.25	CFL3X36W	4	108	5	540	250	540
27	CommunicationLab	8.1	9.6	3	2.25	CFL2X11W	3	22	9	198	250	149
28	virtualcommunicationLab	9.5	8.1	3	2.25	CFL2X11W	8	22	8	176	250	352
29	PowerElectronicsLab	9.3	8.1	3	2.25	CFL2X18W	4	36	9	324	250	324
30	DirectorRoom	4.6	8.1	3	2.25	TL1X40W	6	55	4	220	250	330
31	MainLibrary	39	8.1	3	2.25	TL3X40W	8	165	16	2640	250	5280
32	ElectronicsLab	7.2	8.1	3	2.25	TL1X40W	3	55	2	110	250	83

B-Block (FirstFloor)												**8619**
33	ClassroomsA5,A6,A7,A8,A9.	8.1	9.4	3	2.25	TL1X40W	8	55	20	1100	250	2200
34	StaffRoom	8.1	4.4	3	2.25	CFL2X18W	6	36	6	216	250	324
35	OfficeRoom	8.1	9.5	3	2.25	TL1X40W	4	55	4	220	250	220
36	officeRoom(Reception)	9.4	8.1	3	2.25	TL1X40W	8	55	6	330	250	660
37	ExamCell	9.4	6.1	3	2.25	TL1X40W	8	55	4	220	250	440
38	PrincipalRoom					TL2X40W	8	110	2	220	250	440
						TL1X40W	8	55	1	55	250	110
39	P.G.ComputerLab	19.1	8.1	3	2.25	TL2X36W	7	102	12	1224	250	2142
40	CommunicationSkillsLab	14.3	8.1	3	2.25	TL1X40W	3	55	6	330	250	248
41	ConferenceRoom	31	8.1	3	2.25	TL2X40W	3	110	24	2640	250	1980
		31	8.1	3	2.25	CFL3X36W	2	108	4	432	250	216
42	StaffRoom	4.5	8.1	3	2.25	TL1X40W	8	55	1	55	250	110
43	Varanda					TL1X40W	2	55	10	550	250	275
B-Block (SecondFloor)												**9365**
44	ClassRoom1,2,3,4	8.1	9.4	3	2.25	TL1X40W	8	55	16	880	250	1760
45	DrawingRoom	14.7	9.5	3	2.5	TL1X40W	3	55	5	275	250	206
B-Block (ThirdFloor)												**1966**
46	Spareroom	9.6	9.5	3	2.5	TL1X40W	8	55	3	165	250	330
47	Canteen	31	8.3	3	2.25	TL1X40W	4	55	8	440	250	440
	Canteen1stFloor	31	8.3	3	2.25	TL1X40W	2	55	4	220	250	110
48	Staffcanteen	6.2	3.3	3	2.25	TL1X40W	4	55	2	110	250	110
49	LadiesCanteenLeftSide	6.3	23	3	2.25	TL1X40W	4	55	5	275	250	275
50	LadiesCanteenRightSide	6.3	23	3	2.25	TL1X40W	4	55	4	220	250	220
51	Kitchen	3.4	9.2	3	2.25	CFL1X36W	8	36	4	144	250	288
52	StoreRoom	3.7	3.4	3	2.5	TL1X40W	4	55	1	55	250	55
C-Block (GroundFloor)												**1828**
53	ProcessLab	8	4.7	3.25	2.75	TL1X40W	4	55	2	110	250	110
		8	4.7	3.25	2.75	TL1X40W	8	55	2	110	250	220
54	Lab-2	8	4.8	3.25	2.75	TL2X40W	1	110	2	220	250	55
		8	4.6	3.25	2.75	TL2X40W	8	55	2	110	250	220
55	Instr.AnalysisLab&chem.Engg. Lab	14.4	8	3	2.5	TL1X40W	3	55	6	330	250	248
56	PhysicsLab	14.8	8	3	2.25	TL1X40W	1	55	6	330	250	83
57	CellBiologylab	9.8	8	3	2.5	TL1X40W	6	55	2	110	250	165
		9.8	8	3	2.25	TL1X40W	6	55	2	110	250	165
58	DEANRoom	4.5	8	3	2.25	CFL2X11W	6	22	2	44	250	66
		4.5	8	3	2.25	CFL2X18W	6	36	2	72	250	108
		4.5	8	3	2.5	CFL1X40W	6	40	1	40	250	60
59	MicroBiologyRoom	19.2	8	3	2.375	TL2X40W	10	110	5	550	250	1375
60	UGComputerLab(Centre-1)	14.75	8	3	2.5	TL2X40W	8	110	9	990	250	1980
		5.3	4.6	3	2.25	TL2X40W	8	110	2	220	250	440
		4.6	2.4	3	2.25	TL1X40W	4	55	1	55	250	55
61	UGComputerLab(Centre-2)	14.5	8	3	2.25	TL1X40W	8	55	8	440	250	880
	Varanda					TL1X40W	12	55	7	385	300	1386
62	Chemistrylab	19	8	3	2.25	TL2X40W	8	110	8	880	250	1760

C-Block (FirstFloor)												**9375**
63	ClassroomB4,B5,B7,B8,B9,B10,	9.5	8	3	2.5	TL1X40W	2	55	48	2640	250	1320
	B11,B12,B13,B14,B15,B16									0		**1320**
64	staffRoomB6	9.5	8	3	2.5	TL1X40W	6	55	4	220	250	330
65	LadiesstaffRoom	8	4.7	3	2.25	TL1X40W	8	55	2	110	250	220
66	I.TLab	14.5	8	3	2.25	TL2X40W	5	110	9	990	250	1238
		14.5	8	3	2.5	TL1X40W	5	55	1	55	250	69
C-Block (SecondFloor)												**1856**
67	ClassroomB17,B18,B19,B20,B21 ,B22,B23,B24,B25,B26.(=B4)	9.5	8	3	2.5	TL1X40W	2	55	40	2200	250	1100
68	StaffRoom	8	4.8	3	2.25	TL1X40W	2	55	2	110	250	55
69	DirectorRoom	8	4.8	3	2.25	TL1X40W	8	55	2	110	250	220
70	B-BlockExamcell					TL1X40W	4	55	2	110	250	110
71	StaffRoom	8	4.5	3	2.25	TL1X40W	8	55	2	110	250	220
72	Varanda					TL1X40W	4	55	6	330	250	330
						2X11CFL	4	22	2	44	250	44
EEE Department (Workshop)												**2079**
73	StaffRoom	4.4	4.4	3	2.5	TL1X40W	5	55	1	55	250	69
74	StoreRoom	4.4	4.4	3	2.25	TL1X40W	8	55	1	55	250	110
75	ElectriccircuitsLab	4.4	8.8	3	2.25	TL1X40W	3	55	2	110	250	83
76	ElectricMachineslab	41	12.2	3	2.25	TL2X40W	4	110	9	990	250	990
M-Block (GroundFloor)												**1251**
77	StrengthofmaterialsLab	30	11.2	3	2.25	TL1X40W	4	55	14	770	250	770
78	BusMechanicroom					TL1X40W	6	55	1	55	250	83
M-Block (1stFloor)												**853**
79	Metrology Measurement Lab;DynamicsLab;MechanicsL ab;ThermalLab	6.4	11.2	3	2.5	TL1X40W	6	55	4	220	250	330
M-Block (2ndFloor)												**330**
80	Classroom1,2,3,4.	6.4	11.2	3	2.5	TL1X40W	6	55	16	880	250	1320
Newhostel (GroundFloor)												**1320**
81	Portico					TL1X40W	12	55	2	110	250	330
82	Varanda					TL1X40W	12	55	16	880	250	2640
83	Hostelroom	5	3.65	3	2.5	TL1X40W	5	55	96	5280	250	6600
Mess												**9570**
84	StoreRoom-1					TL1X40W	12	55	2	110	250	330
85	Kitchen					TL1X40W	8	55	3	165	250	330
86	Shed					TL1X40W	8	55	6	330	250	660
87	SideRoom					TL1X40W	12	55	2	110	250	330
88	Dininghall					TL1X40W	4	55	14	770	250	770
89	StoreRoom-2					TL1X40W	2	55	2	110	250	55
	Varanda					TL1X40W	8	55	2	110	300	264
90	1stFloor,Workersroom					TL1X40W	5	55	2	110	250	138
Old Hostel												**2877**
91	Hostelroom	5	3.6	3	2.25	TL1X40W	5	55	2	110	250	138
	Toilet					TL1X40W	5	55	144	7920	250	9900
L-Block (GF)												**10038**
92	ClassRooms-9nos	9.1	7.6	3	2.25	TL1X40W	2	55	2	110	250	55
	Toilet-2nos					TL1X40W	3	55	4	220	250	165
	Varanda					TL1X40W	12	55	1	55	300	198

L-Block (1stFloor)												**418**
93	ComputerCentre-1	30	10.3	3	2.25	CFL2X11W	5	22	18	396	250	495
		30	10.3	3	2.25	TL1X40W	5	55	1	55	250	69
94	ComputerCentre-2	18.5	10.3	3	2.25	CFL2X11W	5	22	21	462	250	578
L-Block (2ndFloor)												**1141**
95	ElectronicsLab	7.6	14.25	3	2.25	TL1X40W	2	55	3	165	250	83
96	Electronics(Digital)lab	7.6	14.25	3	2.25	TL1X40W	2	55	3	165	250	83
97	OpticalLab	7.6	14.25	3	2.25	TL1X40W	1	55	3	165	250	41
	Varanda					TL1X40W	3	55	3	165	250	124
98	Lab(SameasElectroniclab)	7.6	14.25	3	2.25	TL1X40W	2	55	3	165	250	83
	Gentstoilet					TL1X40W	2	55	1	55	250	28
99	1stFloor,Library	12.3	25.33	3	2.25	CFL2X11W	2	22	39	858	250	429
100	Canteen					TL1X40W	2	55	1	55	250	28
101	PRCetStore					TL1X40W	5	55	6	330	250	413
PRCET Block(GF)												**1309**
102	Portico					TL1X40W	12	55	5	275	300	990
103	Chemistrylab	19.25	8.2	3	2.25	TL1X40W	6	55	7	385	250	578
	R&DDept-Varanda					TL1X40W	12	55	5	275	250	825
104	Room	14	8.2	3	2.25	TL1X40W	8	55	10	550	250	1100
PRCET Block (1stfloor)												**3493**
	Varanda					TL1X40W	2	55	7	385	250	193
105	PrincipalRoom					CFL2X11W	8	22	8	176	250	352
106	LadiesstaffRoom	8	8.2	3	2.25	TL1X40W	8	55	5	275	250	550
107	LectureHall:E8	6.5	8.2	3	2.25	TL1X40W	4	55	2	110	250	110
108	LectureHall:E7	7.2	8.2	3	2.25	TL1X40W	4	55	2	110	250	110
109	ElectricCircuitLab:(StaffRom)	10	8.2	3	2.25	TL1X40W	4	55	2	110	250	110
110	PhysicsLab	12	8.2	3	2.25	TL1X40W	4	55	5	275	250	275
PRCET Block (2ndfloor)												**1700**
111	Lecturerhall:E12,E14	12	8.2	3	2.25	TL2X40W	2	110	4	440	250	220
112	Lecturerhall:E13	12	8.2	3	2.25	TL2X40W	2	110	2	220	250	110
113	ExamCell					TL1X40W	8	55	2	110	250	220
114	GentsStaffroom					TL2X40W	2	110	2	220	250	110
115	Lecturerhall:E9,E10,E11.	12	8.2	3	2.25	TL2X40W	2	110	6	660	250	330
Health Centre: (Block)												**990**
116	EstateOfficeHall	7.62	4.88	3	2.25	TL1X40W	2	55	3	165	250	83
117	EstateOfficeRoom	4.88	3.66	3	2.25	TL1X40W	8	55	3	165	300	396
118	CashCounterRoom	7.62	4.88	3	2.25	TL1X40W	8	55	2	110	300	264
Health Centre: (Block-1stfloor)												**743**
	Varanda					TL1X40W	4	55	2	110	250	110
119	GuestRoom-1	7.62	4.88	3	2.25	TL1X40W	4	55	4	220	200	176
120	GuestRoom-2	7.62	4.88	3	2.25	TL1X40W	4	55	1	55	200	44
Health Centre: (Block-2ndfloor)												**330**
121	Room					TL1X40W	4	55	2	110	250	110
Administrative Block -GroundFloor												**110**
122	Reception	4.7	4.6	2.5	1.75	CFL2X11W	8	22	3	66	250	132
123	DeanRoom	4.7	4.6	3	2.25	TL1X40W	8	55	2	110	250	220
124	Admissionhall	14.2	10.2	2.5	1.75	CFL2X18W	4	36	24	864	250	864
125	DirectorRoom	4.1	2.5	2.5	1.75	CFL2X18W	8	36	1	36	250	72
126	FacutyRoom-2	4.1	9	2.5	1.75	CFL2X18W	6	36	6	216	250	324
127	FacutyRoom-1	2.4	4.1	2.5	1.75	CFL2X18W	6	36	1	36	250	54
	Toilet					TL1X40W	2	55	2	110	300	66

128	ComputerCentre-1	19	9.4	2.5	1.75	CFL2X11W	6	22	32	704	250	1056
129	Varanda					TL1X40W	12	55	5	275	365	1205
						2X18W	12	40	5	200	365	876
130	InternetCentre	9.3	9.3	**2.5**	1.75	CFL2X11W	3	22	16	352	250	264
131	SmartClassRoom	10.6	8.4	2.5	1.75	CFL2X11W	5	22	12	264	250	330
132	ServerRoom	2.2	10.6	3	2.25	TL1X40W	8	55	2	110	250	220
133	ComputerCentre-2	9.3	9.3	2.5	1.75	CFL2X11W	6	22	16	352	250	528
134	Computercenter-3	19	9.4	2.5	1.75	CFL2X11W	13	22	32	704	250	2288
135	Entrance(SameAsReception)	4.7	4.6	2.5	1.75	CFL2X11W	8	22	1	22	250	44
136	SISCOLab	7.2	14.5	2.5	1.75	CFL2X18W	6	36	13	468	250	702
137	ComputerHarrdwareRoom	7	14.5	2.5	1.75	CFL2X18W	5	36	11	396	250	495
Administrative Block -FirstFloor												**9740**
138	StoreRoom					TL1X40W	8	55	3	165	250	330
						TL2X40W	8	110	6	660	250	1320
						CFL2X18W	8	36	6	216	250	432
139	Room					TL1X40W	8	55	1	55	250	110
140	Pro-ViceChancellorRoom	4.7	4.4	2.5	1.75	CFL2X18W	8	36	4	144	250	288
141	Dr.M.GopalSirRoom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	3	108	250	216
142	Dean-Science&Humanities	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1	36	250	54
143	Director-AcademicAffairs	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1	36	250	54
144	SeniorAdvisorRoom1	4.7	4.4	3	2.25	TL1X40W	8	55	1	55	250	110
145	SeniorAdvisorRoom2	4.4	4.6	2.5	1.75	CFL2X18W	8	36	4	144	250	288
146	Visitorroom	9.4	3.2	3	2.5	TL1X40W	8	55	2	110	250	220
147	Pro-ChancellorRoom	5.8	6.1	2.5	1.75	CFL2X18W	6	36	5	180	250	270
148	OfficeRoom-Front	4.4	3.6	3	2.5	TL1X40W	8	55	1	55	250	110
149	OfficeRoom	7.3	9.1	2.5	1.75	CFL2X18W	8	36	7	252	250	504
150	ServiceRoom	5.6	3.2	2.5	1.75	CFL1X18W	12	18	1	18	250	54
151	Varanda	5.6	3.2	3	2.25	TL1X40W	12	55	1	55	250	165
152	Vice-Chancellor(VisitorsRoom)	4.8	3.4	2.5	1.75	CFL2X18W	8	36	2	72	250	144
153	MainRoom	9.4	5.9	2.5	1.75	CFL2X18W	8	36	7	252	250	504
154	RecordsRoom	3.1	4.5	2.5	1.75	CFL2X18W	6	36	2	72	200	86
155	RegisterOffice-FrontRoom	4.4	4.7	3	2.5	TL1X40W	8	55	2	110	250	220
156	Otherroom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	2	72	250	144
157	RegistrarRoom	4.7	9.4	2.5	1.75	CFL2X18W	8	36	4	144	250	288
	Toilet					TL1X40W	6	55	1	55	250	83
158	Central-AdministrationOffice	4.7	4.6	3	2.25	TL1X40W	8	55	1	55	250	110
	FrontRoom	4.7	4.6	3	2.25	TL1X40W	2	55	1	55	250	28
159	MainRoom	14	13.9	3	2.25	TL1X40W	8	55	13	715	250	1430
		14	13.9	3	2.25	TL1X28	8	30	2	60	250	120
Administrative Block-SecondFloor												**7681**
160	ExamCellRoom	12.9	14.1	3	2.5	TL2X40W	8	110	8	880	250	1760
161	StudentsMaterialswarehouse	9.5	9.4	3	2.5	TL1X40W	8	55	2	110	250	220
		9.5	9.4	3	2.5	TL1X40W	8	55	2	110	250	220
162	Director-DistanceEducation	9.3	9.3	3	2.25	TL1X40W	8	55	4	220	250	440
163	ControllerofExam.(Frontroom)	6.4	2.5	2.5	1.75	CFL2X18W	8	36	2	72	250	144
164	MainRoom	6.4	6	2.5	1.75	CFL2X18W	8	36	5	180	250	360
165	Addl.Con.ofExam.(FrontRoom)	4.7	4.6	3	2.25	TL1X40W	8	55	1	55	250	110
166	Room	6.1	4.6	2.5	1.75	CFL2X11W	8	22	4	88	250	176
167	Office-1	10.6	4	3	2.25	TL1X40W	8	55	2	110	250	220

168	Office-2	9.4	4.5	3	2.25	TL1X40W	8	55	2	110	250	220
169	COEOffice	9.4	5.2	3	2.25	TL1X40W	8	55	2	110	250	220
170	DeputyCOE	4.1	3.3	2.5	1.75	CFL2X11W	8	22	3	66	250	132
171	ConfidentialRoom-1	6.1	3.3	2.5	1.75	CFL2X11W	8	22	6	132	250	264
172	ConfidentialRoom-2	9.4	9.4	3	2.25	TL1X40W	4	55	5	275	250	275
PolytechnicBlock												**4761**
173	ElectricMachineslab	42	6	3	2.25	TL1X40W	8	55	8	440	250	880
174	MechanicalWorkshop	42	12	3	2.25	TL2X40W	4	110	14	1540	250	1540
						TL1X40W	4	55	4	220	250	220
175	ComputerLab	12.2	9.2	2.5	1.75	TL2X40W	4	110	9	990	250	990
176	SMLab	12.2	9.2	3	2.25	TL1X40W	4	55	4	220	250	220
177	FMLab	13.9	12.2	3	2.25	TL1X40W	4	55	5	275	250	275
178	ThermalEngg.Lab	14.4	12.2	3	2.25	TL1X40W	6	55	5	275	250	413
Polytechnic Block(1stFloor)												**4538**
179	StaffRoom	7.3	2.8	3	2.25	TL1X40W	8	55	1	55	250	110
180	Chemistrylab	9.3	9.2	3	2.25	TL1X40W	4	55	2	110	250	110
181	PhysicsLab	9.5	9.2	3	2.25	TL1X40W	4	55	2	110	250	110
182	ClassRoom	9.5	9.2	3	2.25	TL1X40W	4	55	2	110	250	110
183	ElectronicsDeviceLab	9.5	9.2	3	2.25	TL1X40W	4	55	2	110	250	110
184	OfficeRoom	9	5.9	3	2.25	TL1X40W	8	55	3	165	250	330
185	Lab	9.2	9.1	3	2.25	TL1X40W	4	55	2	110	250	110
186	ComputerCentre	13.2	9.1	3	2.25	TL1X40W	4	55	10	550	250	550
187	ClassRoom	18.8	9.1	3	2.25	TL1X40W	4	55	2	110	250	110
188	StaffRoom	9.1	4.4	3	2.25	TL1X40W	8	55	2	110	250	220
189	ClassRooms 1,2,3,4,5,7,8,9,10,11	9.2	9.1	3	2.25	TL1X40W	6	55	20	1100	250	1650
190	ClassRoom6									0		
Administration Block(1stfloor)												**3520**
191	ChancellorRoom-1	6	3.4	3	2.25	TL1X40W	4	55	2	110	200	88
192	FrontRoom	10.6	3.1	2.5	1.75	CFL2X18W	8	36	4	144	250	288
193	MainRoom	7.4	6.4	2.5	1.75	CFL2X18W	4	36	6	216	250	216
							1x40TL	**941**		0		**592**
							2x40TL	**94**				**115234**
StreetLight												
194	PanelRoom	St.light-1				250WSVL	4	270	12	3240	365	4730
195		St.light-2				250WSVL	7	270	12	3240	365	8278
196	PillorBox	St.light-3				250WSVL	15	270	12	3240	365	17739
							SVL	**26**		0		**30748**
							CFL	**459**		**89797**		**145982**
							Total	**1494**	**WithDiversityFactor-1.5**			**97321**

AnnexureXI

PRIST DEEMED UNIVERSITY- VALLAM,THANJAVUR									
Fan Details									
		Fans							
S.No.	**Floors**	**Ceiling**	**Pedestal**	**Wall mount**	**Exaust**	**Total Watts**	**Oper. Hrs.**	**Working days**	**Annual Consm**
		80W	**60W**	**55W**	**50W**				
1	MVPanelRoom	3	1			300	8	365	876
2	MSBPanelRoom	2				160	8	365	467.2
3	Civilroom-oldest.of	1				80	8	200	128
4	FrontRoom	1				80	8	250	160
5	SecurityRoom(Office)	1				80	12	365	350.4
6	SecurityRoom	1				80	12	365	350.4
D-									**2332**
7	MaterialRoom	2				160	8	250	320
8	StoreStackRoom								
9	Staffroom	2				160	8	250	320
10	ClassRoomD2,D3,D4.	12				960	4	250	960
11	EEEComputerRoom	4				320	6	250	480
12	TransducerLab	4				320	3	250	240
15	ClassRoom5,6,7,8,9,11	24				1920	8	250	3840
16	Staffroom(Gents)	1				80	8	250	160
17	FacutyRoom	3				240	8	250	480
D-									**6800**
18	ClassRoom11,12,13,14	16				1280	8	250	2560
19	ConferenceRoom(Drawing Room)	8				640	4	200	512
A-Block (GroundFloor)									**3072**
21	ElectronicsystemDesign lab	4				320	8	250	640
22	ElectronicCircuitLab	4				320	8	250	640
23	NW&Digi.sig.Processing Lab	4				320	4	250	320
24	VLSI&EmbeddedLab	4				320	4	250	320
25	H.O.D(E.C.E)	4				320	8	250	640
26	Microwave&FibreOptics Lab	4				320	4	250	320
27	CommunicationLab	4				320	3	250	240
28	virtualcommunicationLab	4				320	8	250	640
29	PowerElectronicsLab	4				320	4	250	320
31	MainLibrary	16				1280	8	250	2560
32	ElectronicsLab	3				240	3	250	180
A-Block (FirstFloor)									**6820**
33	Classrooms A5,A6,A7,A8,A9.	20				1600	8	250	3200
34	StaffRoom	3				240	6	250	360
35	OfficeRoom	4				320	8	250	640
36	officeRoom(Reception)	6				480	8	250	960
37	ExamCell	4				320	8	250	640
38	PrincipalRoom								
39	P.G.ComputerLab	8				640	7	250	1120
40	CommunicationSkillsLab	1				80	3	250	60
41	ConferenceRoom	16				1280	2	250	640
42	StaffRoom	2				160	8	250	320

A-Block (SecondFloor)									**7940**
44	ClassRoom1,2,3,4	16				1280	8	250	2560
45	DrawingRoom	6				480	3	250	360
A-Block (ThirdFloor)									**2920**
46	Spareroom	2				160	8	250	320
47	Canteen	8				640	4	250	640
	Canteen1stFloor								
48	Staffcanteen	1				80	4	250	80
49	LadiesCanteenLeftSide	7				560	4	250	560
50	LadiesCanteenRightSide	4				320	4	250	320
51	Kitchen				2	140	6	300	252
52	StoreRoom	1				80	4	250	80
B-Block (GroundFloor)									**2252**
53	Bio-ProcessLab	4				320	4	250	320
54	B2-MolecularBiologylab	4				320	1	250	80
55	Instr.AnalysisLab&chem. Engg.Lab	6				480	3	250	360
56	PhysicsLab	5		1		455	1	250	113.75
57	CellBiologylab	4				320	6	250	480
58	DEANRoom	2				160	6	250	240
59	MicroBiologyRoom	6		1		535	10	250	1337.5
60	UGComputerLab(Centre-1)	6				480	8	250	960
61	UGComputerLab(Centre-2)	6				480	8	250	960
62	Chemistrylab	1			4	280	8	250	560
B-Block (FirstFloor)									**5411.25**
63	ClassroomB4,B5,B7,B8,B9,B	48				3840	6	250	5760
	B11,B12,B13,B14,B15,B16								
64	staffRoomB6	4				320	6	250	480
65	LadiesstaffRoom	2				160	8	250	320
66	I.T Lab	6				480	5	250	600
B-Block (SecondFloor)									**7160**
67	ClassroomB17,B18,B19,B20, B21,B22,B23,B24,B25,B26.(=B4)	40				3200	6	250	4800
		2				160		250	0
68	StaffRoom	2				160	2	250	80
69	DirectorRoom	2				160	8	250	320
70	B-BlockExamcell	4				320	6	250	480
71	StaffRoom	2				160	8	250	320
(Workshop)									**6000**
73	StaffRoom	2				160	5	250	200
74	StoreRoom	1				80	8	250	160
75	ElectriccircuitsLab	2				160	3	250	120
76	ElectricMachineslab	19				1520	4	250	1520
C Block (GroundFloor)									**2000**
77	StrengthofmaterialsLab	6				480	4	250	480
78	BusMechanicroom	1				80	6	250	120
C Block(1stFloor)									**600**
79	Metrology&MeasurementLab;DynamicsLab;MechanicsLab;ThermalLab	4				320	6	250	480

C Block(2ndFloor)									**480**
80	Classroom1,2,3,4.	16				1280	6	250	1920
(GroundFloor)									**1920**
83	Hostelroom	96				7680	12	250	23040
Mess									**23040**
84	StoreRoom-1	1				80	12	250	240
85	Kitchen				1	50	8	250	100
86	Shed								
87	SideRoom	1				80	12	250	240
88	Dininghall	13				1040	4	250	1040
89	StoreRoom-2	1				80	2	250	40
90	1stFloor,Workersroom	4				320	5	250	400
OldHostel									**2060**
91	Hostelroom	144				11520	12	250	34560
L-Block(GF)									**34560**
92	ClassRooms-9nos	36				2880	8	250	5760
93	ComputerCentre-1	18				1440	5	250	1800
94	ComputerCentre-2	12				960	5	250	1200
L-Block(2ndFloor)									**8760**
95	ElectronicsLab	6				480	3	250	360
96	Electronics(Digital)lab	6				480	3	250	360
97	OpticalLab	6				480	3	250	360
98	Lab(SameasElectroniclab)	6				480	3	250	360
99	1stFloor,Library	18				1440	6	250	2160
101	PRCetStore	3				240	5	250	300
PRCET Block(GF)									**3900**
103	Chemistrylab	8				640	6	250	960
104	Room	9				720	8	250	1440
PRCET Block(1stfloor)									**2400**
105	PrincipalRoom	2				160	8	250	320
106	LadiesstaffRoom	4				320	8	250	640
107	LectureHall:E8	2				160	4	250	160
108	LectureHall:E7	3				240	4	250	240
109	ElectricCircuitLab:(Staff Rom)	3				240	4	250	240
110	PhysicsLab	3				240	4	250	240
PRCET Block(2ndfloor)									**1840**
111	Lecturerhall:E12,E14	4				320	4	250	320
112	Lecturerhall:E13	3				240	2	250	120
113	ExamCell	2				160	8	250	320
114	GentsStaffroom	4				320	8	250	640
115	Lecturerhall:E9,E10,E11.	12				960	4	250	960
HealthCentre:(Block)									**2360**
116	EstateOfficeHall	2				160	2	250	80
117	EstateOfficeRoom	2				160	8	300	384
118	CashCounterRoom	2				160	8	300	384
HealthCentre:(Block-1stfloor)									**848**
119	GuestRoom-1	3				240	4	200	192
120	GuestRoom-2	2				160	4	200	128
HealthCentre:(Block-2ndfloor)									**320**
121	Room	4				320	4	200	256

Administrative Block -GroundFloor									**256**
122	Reception	1				80	8	250	160
123	DeanRoom	1				80	8	250	160
124	Admissionhall	6				480	4	250	480
125	DirectorRoom	1				80	8	250	160
126	FacutyRoom-2	3				240	6	250	360
127	FacutyRoom-1	1				80	6	250	120
128	ComputerCentre-1	12				960	6	250	1440
130	InternetCentre	6				480	3	250	360
131	SmartClassRoom	6				480	5	250	600
132	ServerRoom								
133	ComputerCentre-2	6				480	6	250	720
134	Computercenter-3	12				960	13	250	3120
136	SISCOLab	6				480	6	250	720
137	ComputerHarrdwareRoom	6				480	5	250	600
Administrative Block -First Floor									**9000**
138	StoreRoom	3				240	8	250	480
139	Room	1				80	6	250	120
140	Pro-ViceChancellorRoom	1				80	8	250	160
141	Dr.M.GopalSirRoom	1				80	8	250	160
142	Dean-Science&Humanities	1				80	4	250	80
143	Director-AcademicAffairs	1				80	6	250	120
144	SeniorAdvisorRoom1	1				80	8	250	160
145	SeniorAdvisorRoom2	1				80	8	250	160
146	Visitorroom	2				160	8	250	320
147	Pro-ChancellorRoom	2				160	6	250	240
148	OfficeRoom-Front	1				80	8	250	160
149	OfficeRoom	3				240	8	250	480
151	Varanda	2				160	4	250	160
152	Vice-Chancellor(Visitors Room)	1				80	6	250	120
153	MainRoom	1			1	130	8	250	260
154	RecordsRoom	1				80	6	250	120
155	RegisterOffice-FrontRoom	2				160	8	250	320
156	Otherroom	2				160	8	250	320
157	RegistrarRoom	2				160	8	250	320
158	Central-Administration Office(FrontRoom)	1				80	8	250	160
	FrontRoom	1				80	2	250	40
159	MainRoom	14				1120	8	250	2240
Administrative Block -SecondFloor									**6700**
160	ExamCellRoom	6				480	8	250	960
161	StudentsMaterialsware house	3				240	8	250	480
162	Director-Distance Education	5				400	8	250	800
163	ControllerofExam.(Front room)	1				80	8	250	160
164	MainRoom	3			1	290	8	250	580
165	Addl.Con.ofExam.(Front Room)	1				80	8	250	160

166	Room	2				160	8	250	320
167	Office-1	3				240	8	250	480
168	Office-2	3				240	8	250	480
169	COEOffice	3				240	8	250	480
170	DeputyCOE	1				80	8	250	160
171	ConfidentialRoom-1	2				160	8	250	320
172	ConfidentialRoom-2	5				400	4	250	400
Polytechnic Block									**5780**
173	ElectricMachineslab	2				160	8	250	320
174	MechanicalWorkshop	3				240	4	250	240
175	ComputerLab	7				560	4	250	560
176	SMLab	2				160	4	250	160
177	FMLab	1				80	4	250	80
178	ThermalEngg.Lab	2				160	6	250	240
Polytechnic Block(1st Floor)									**1600**
179	StaffRoom	1				80	8	250	160
180	Chemistrylab	4				320	4	250	320
181	PhysicsLab	4				320	4	250	320
182	ClassRoom	4				320	6	250	480
183	ElectronicsDeviceLab	4				320	6	250	480
184	OfficeRoom	3				240	8	250	480
185	Lab	4				320	4	250	320
186	ComputerCentre	6				480	4	250	480
187	ClassRoom	8				640	4	250	640
188	StaffRoom	3				240	8	250	480
189	ClassRooms1,2,3,4,5,7,8,9,10,11	60				4800	6	250	7200
190	ClassRoom6	4				320	6	250	480
Administration Block (1st floor)									**11840**
191	ChancellorRoom-1	1				80	4	250	80
192	FrontRoom	3				240	4	250	240
193	MainRoom	3				240	4	250	240
									560
		1180	**1**	**2**	**9**	**95060**			**156691**
					WithDiversityFactor-1.5				**104461**
	Electronic chokes	380							

AnnexureXII

PRIST DEEMED UNIVERSITY-

ComputerSystemconsumptiondetails

S.No	Location	UPS Details	DetailsofSystems&loads				PowerinWatts			Total Watts	Oper. Hours	Consm perday	Consm per month	Annualconsm
				TFT	CRT	Others	TFT	CRT	Others					
1	ECEDept. A-Block GroundFloor	30KVA/3Ph. Numeric/ DC360V,	NW&D.S.P.Lab	25		1	2425		100	2525	4	10	253	2525
			EmbeddedLab	32		1	3104		100	3204	4	13	320	3204
			VirtualInstr.Lab	18		1	1746		100	1846	8	15	369	3692
			PowerElectron.Lab	2			194		0	194	4	1	19	194
2	PGcomp.centerA-Block FirstFloor	30KVA/3Ph Numeric/ DC310V	Directorroom	1			97		0	238	4	1	24	238
			MainLibrary	2		1	194		100	294	8	2	59	588
			Office	1		1	97		100	197	4	1	20	197
			Exam.Cell	2		3	194		300	494	4	2	49	494
			Principalroom	1			97		0	97	6	1	15	145.5
			PGcomputerLab	73			7081		0	7081	8	57	1416	14162
			Comm.Skills			1	0		100	4612	3	14	346	3459
			Conferenceroom.	1		1	97		100	197	3	1	15	147.75
3	UG Computercenter. B-Block	30KVA/3Ph Numeric/ DC310V	UGComputerLab-1			3	0		300	9183	8	73	1837	18366
			UGComputerLab-2			2	0		200	8096	8	65	1619	16192
							0		0	0		0	0	0
							0		0	0		0	0	0
4	ITLab. B-Block GroundFloor	15KVA/3Ph/ Numeric /DC240V	ITLab.			2	0		200	7814	5	39	977	9767.5
			BBlockexamcell	1		1	97		100	197	6	1	30	295.5
							0		0	0		0	0	0
							0		0	0		0	0	0
	Server room.C-Block	2Nos.50KVA	Deanroom	1			97		0	238	8	2	48	476
			Admissionhall			1	0		100	100	6	1	15	150
			Director	11		1	1067		100	1167	6	7	175	1750.5
			FacultyII	1		1	97		100	620	4	2	62	620
			Computercenter-1	96		3	9312		300	9612	6	58	1442	14418
			Internetcenter	36		3	3492		300	3792	6	23	569	5688
			Smartclassroom	1		1	97		100	197	5	1	25	246.25
			Server	7		1	679		100	779	24	19	467	4674
			Computercenter-2	36		3	3492		300	3792	6	23	569	5688
			Computercenter-3	96		3	9312		300	9612	6	58	1442	14418
			SiscoLab	48		2	4656		200	4856		0	0	0
			Storeroom	1			97		0	97	8	1	19	194
			ProviceChancellor	1		1	97		100	197	6	1	30	295.5

5	(NewAdmn.Block)FirstFloor	3Ph/Numeric Digital/DC360V	Pro-VC office	2			194	0	0	194	6	1	29	291
			Dean-Science	1			97	0	0	97	6	1	15	145.5
			Director-Acadamic	1			97	0	0	97	4	0	10	97
			SrAdvisor	1		1	97	0	100	197	6	1	30	295.5
			Pro-Chancellor	2		2	194	0	200	394	4	2	39	394
			Officeroom	4		1	388	0	100	488	6	3	73	732
			RegistrarOffice	1		1	97	0	100	197	6	1	30	295.5
			CentralAdmn.	3		4	291	0	400	691	6	4	104	1036.5
			Director-Dis.Edu	6		2	582	0	200	782	6	5	117	1173
			ControllerofExam.	1		1	97	0	100	197	6	1	30	295.5
			Addl.Con.Exam.	4		2	388	0	200	588	6	4	88	882
			COEoffice	3		1	291	0	100	391	6	2	59	586.5
			DeputyCOE	1			97	0	0	97	6	1	15	145.5
			Confidentialroom	6		1	582	0	100	682	6	4	102	1023
6	PRCET Block	5KVA/1Ph/Numeric /DC240V	R&DDept.		13	1	0	1833	100	1933	6	12	290	2899.5
			Principalroom		4	2	0	564	200	764	4	3	76	764
			Exam.Cell		2	1	0	282	100	382	6	2	57	573
7	Health Centre	5KVA/1Ph/Numeric /DC240V	Estateoffice	1			97	0	0	97	24	2	58	582
			Cashcounter	2		2	194	0	200	394	8	3	79	788
8	A-Block GroundFloor	15KVA/3Ph/ Numeric /DC240V	EEEComputerroom	35		1	3395	0	100	3495	6	21	524	5242.5
			TransducerLab	7			679	0	0	679	3	2	51	509.25
							0	0	0	0		0	0	0
9	L - Blockcomputer Lab	60KVA/3Ph/ NumericDigital DC360V	Computercenter-1	180			17460	0	0	17460	8	140	3492	34920
			Computercenter-2	75	45		7275	63450	0	13620	8	109	2724	27240
			Library		2		0	282	0	282	8	2	56	564
							0	0	0	0		0	0	0
10	Polytechnic-I	15KVA/3Ph/ Numeric	ComputerLab		50		0	7050	0	7050	4	28	705	7050
			Server	2		2	194	0	200	394	24	9	236	2364
							0	0	0	0		0	0	0
							0	0	0	0		0	0	0
11	Polytechnic-II	30KVA/3Ph NumericDC 240V	Officeroom	1	2	1	97	282	100	479	8	4	96	958
			Computercenter		71		0	10011	0	10011	5	50	1251	12513.8
							0	0	0	0		0	0	0
							0	0	0	0		0	0	0
				833	**399**	**64**	**80801**	**56259**	**6400**	**143460**	**380**	**906.584**	**22664.6**	**226646**
WithDiversityFactor1.2														**188872**

AnnexureXIII

PRIST DEEMED UNIVERSITY-VALLAM,THANJAVUR

RoomwiseUPS consumptiondetails

S.No	Location	UPSDetails	DetailsofSystems&loads				PowerinWatts			Total Watts	Oper. Hours	Consm perday	Consmpe rmonth	Annual System conspm	UPS Efficiy	UPS inputco nspm
				TFT	CRT	Others	TFT	CRT	Others							
1	ECEDept. A-Block (NewB-Block)GroundFloor	30KVA/3Ph. Numeric/DC360V,	NW&D.S.P.Lab	25		1	2425	0	100	2525	4	10.1	252.5	2525	82	3079
			EmbeddedLab	32		1	3104	0	100	3204	4	12.816	320.4	3204	82	3907
			VirtualInstr.Lab	18		1	1746	0	100	1846	8	14.768	369.2	3692	82	4502
			PowerElectron.Lab	2			194	0	0	194	4	0.776	19.4	194	82	237
2	PG comp. centerA-Block (NewB-Block)FirstFloor	30KVA/3Ph Numeric/DC310V	Directorroom	1	1		97	141	0	238	4	0.952	23.8	238	58	410
			MainLibrary	2		1	194	0	100	294	8	2.352	58.8	588	58	1014
			Office	1		1	97	0	100	197	4	0.788	19.7	197	58	340
			Exam.Cell	2		3	194	0	300	494	4	1.976	49.4	494	58	852
			Principalroom	1			97	0	0	97	6	0.582	14.55	145.5	58	251
			PGcomputerLab	73			7081	0	0	7081	8	56.648	1416.2	14162	58	24417
			Comm.Skills		32	1	0	4512	100	4612	3	13.836	345.9	3459	58	5964
			Conferenceroom.	1		1	97	0	100	197	3	0.591	14.775	147.75	58	255
3	UGComputercenter. B-Block (NewC-Block)GroundFloor	30KVA/3Ph Numeric/DC310V	UGComputerLab-1		63	3	0	8883	300	9183	8	73.464	1836.6	18366	61	30108
			UGComputerLab-2		56	2	0	7896	200	8096	8	64.768	1619.2	16192	61	26544
							0	0	0	0		0	0	0	61	0
							0	0	0	0		0	0	0	61	0
4	ITLab. B-Block (NewC-Block)GroundFloor	15KVA/3Ph/Numeric /DC240V	ITLab.		54	2	0	7614	200	7814	5	39.07	976.75	9767.5	33	29598
			BBlockexamcell	1		1	97	0	100	197	6	1.182	29.55	295.5	33	895
							0	0	0	0		0	0	0	33	0
							0	0	0	0		0	0	0	33	0
			Deanroom	1	1		97	141	0	238	8	1.904	47.6	476	75	635
			Admissionhall			1	0	0	100	100	6	0.6	15	150	75	200
			Director	11		1	1067	0	100	1167	6	7.002	175.05	1750.5	75	2334
			FacultyII	1	3	1	97	423	100	620	4	2.48	62	620	75	827
			Computercenter-1	96		3	9312	0	300	9612	6	57.672	1441.8	14418	75	19224
			Internetcenter	36		3	3492	0	300	3792	6	22.752	568.8	5688	75	7584
			Smartclassroom	1		1	97	0	100	197	5	0.985	24.625	246.25	75	328
			Server	7		1	679	0	100	779	24	18.696	467.4	4674	75	6232
			Computercenter-2	36		3	3492	0	300	3792	6	22.752	568.8	5688	75	7584
			Computercenter-3	96		3	9312	0	300	9612	6	57.672	1441.8	14418	75	19224
			SiscoLab	48		2	4656	0	200	4856		0	0	0	75	0

5	Serverroom. C-Block FirstFloor	2Nos.50KVA 3Ph/Numeric Digital/DC360V	Storeroom	1			97	0	0	97	8	0.776	19.4	194	75	259
			ProviceChancellor	1		1	97	0	100	197	6	1.182	29.55	295.5	75	394
			Pro-VC office	2			194	0	0	194	6	1.164	29.1	291	75	388
			Dean-Science	1			97	0	0	97	6	0.582	14.55	145.5	75	194
			Director-Acadamic	1			97	0	0	97	4	0.388	9.7	97	75	129
			SrAdvisor	1		1	97	0	100	197	6	1.182	29.55	295.5	75	394
			ProChancellor	2		2	194	0	200	394	4	1.576	39.4	394	75	525
			Officeroom	4		1	388	0	100	488	6	2.928	73.2	732	75	976
			RegistrarOffice	1		1	97	0	100	197	6	1.182	29.55	295.5	75	394
			CentralAdmn.	3		4	291	0	400	691	6	4.146	103.65	1036.5	75	1382
			Director-Dis.Edu	6		2	582	0	200	782	6	4.692	117.3	1173	75	1564
			ControllerofExam.	1		1	97	0	100	197	6	1.182	29.55	295.5	75	394
			Addl.Con.Exam.	4		2	388	0	200	588	6	3.528	88.2	882	75	1176
			COEoffice	3		1	291	0	100	391	6	2.346	58.65	586.5	75	782
			DeputyCOE	1			97	0	0	97	6	0.582	14.55	145.5	75	194
			Confidentialroom	6		1	582	0	100	682	6	4.092	102.3	1023	75	1364
6	Dept.PRCE TBlock	5KVA/1Ph/Numeric /DC240V	R&DDept.		13	1	0	1833	100	1933	6	11.598	289.95	2899.5	75	3866
			Principalroom		4	2	0	564	200	764	4	3.056	76.4	764	75	1019
			Exam.Cell		2	1	0	282	100	382	6	2.292	57.3	573	75	764
7	Health Centre	5KVA/1Ph/Numeric /DC240V	Estateoffice	1			97	0	0	97	24	2.328	58.2	582	70	831
			Cashcounter	2		2	194	0	200	394	8	3.152	78.8	788	70	1126
8	A-Block GroundFloor	15KVA/3Ph/Numeric /DC240V	EEEComputerroom	35		1	3395	0	100	3495	6	20.97	524.25	5242.5	70	7489
			TransducerLab	7			679	0	0	679	3	2.037	50.925	509.25	70	728
							0	0	0	0		0	0	0	70	0
9	L – Block computerLab	60KVA/3Ph/NumericDigital DC360V	Computercenter-1	180			17460	0	0	17460	8	139.68	3492	34920	87	40138
			Computercenter-2	75	45		7275	6345	0	13620	8	108.96	2724	27240	87	31310
			Library		2		0	282	0	282	8	2.256	56.4	564	87	648
							0	0	0	0		0	0	0	87	0
10	Polytechnic-I	15KVA/3Ph/ Numeric	ComputerLab		50		0	7050	0	7050	4	28.2	705	7050	88	8011
			Server	2		2	194	0	200	394	24	9.456	236.4	2364	88	2686
							0	0	0	0		0	0	0	88	0
							0	0	0	0		0	0	0	88	0
11	Polytechnic-II	30KVA/3Ph Numeric DC240V	Officeroom	1	2	1	97	282	100	479	8	3.832	95.8	958	80	1198
			Computercenter		71		0	10011	0	10011	5	50.055	1251.375	12513.75	80	15642
							0	0	0	0		0	0	0	80	0
							0	0	0	0		0	0	0	80	0
													22664.6	**226646**		**322512**
													UPSownConsumption			**95866**
													WithDiversityFactor1.5			**63910.483**

Annexure XIV

PRIST DEEMED UNIVERSITY- VALLAM,THANJAVUR											
Motorsmeasurementreadings											
									Working	Consm	Annual
Sl.no.	Location	Phase	Volts	Amps	KW	PF	KVAr	KVA	hours	per day	consm
1	L-Block	R	217.7	8.8	1.49	0.78					
	5 HP	Y	218	9	1.56	0.79					
		B	217.9	8.5	1.48	0.8					
					4.53			5.07	5	22.5	6750
2	NearCanteen										
	3 HP		399	4.6	2.22	0.697		3.4	6	13.2	3960
3	NearBBlock										
	15 HP		405.9	20.2	4.8	0.588	6.59	8.14	5	24	7200
4	NearHostel										
	5 HP	R	222.3	8.6	1.55	0.81	1.13	1.93			
		Y	223.2	8.9	1.57	0.79	1.22	1.99			
		B	220.4	8.4	1.45	0.78	1.1	1.84			
					4.57			5.76	6	27.6	8280
					16.13			**19.07**			**26190**
								WithDiversityFactor 1.5			**17460**

AnnexureXV

PRIST DEEMED UNIVERSITY- VALLAM,THANJAVUR						
Private service provider's loads						
					Working	**Annual**
		KW	**Qty.**	**Load**	**hours**	**Consumption**
	Canteen					
1	Fridge	1.6	1	1.6	12	5760
2	Grinder	0.75	1	0.75	5	1125
3	Mixy	0.75	1	0.75	2	450
	Mess					
1	Fridge	0.75	1	0.75	12	2700
2	Grinder	0.75	6	4.5	6	8100
3	Mixy	0.75	2	1.5	3	1350
4	WaterPurifier	0.25	1	0.25	8	600
	Canteen					
1	Fridge	0.25	2	0.5	12	1800
2	Coffemachine	0.75	1	0.75	6	1350
3	Xerox	0.25	3	0.75	5	1125
4	Heater	1	1	1	6	1800
	ATMcenter					
1	ATMM/C	0.25	1	0.25	3	225
2	Airconditioner	1.2	2	2.4	8	5760
				15.75		**32145**

AnnexureXVI

PRIST DEEMED UNIVERSITY,Westcampus,Vallam

Panelloadingmeasurementreadings,

Sl. no	Panel Name	Areafeeding	Voltage		Current	Power				TotalHarmonics	
			Ph-Ph	Ph-N	Amps	KW	PF	KVAr	KVA	THD(V)	THD(I)
1	SSB-2	Mechanicalpower	402.4	233.1	10.3	2.05	0.83	1.38	2.45	5.3	61.2
			399	230.7	10.2	1.99	0.84	1.26	2.36	5	61.3
2	PSB-5	C-Blockpower	400.9	232.5	66.1	11.45	0.73	10.45	16.9	5.4	44
			397.8	238.3	81.2	15.8	0.83	10.3	19.08	5.3	34.3
			400.4	229.8	74.4	13.69	0.8	10.14	17.5	4.9	40.6
3	MSB-1	Subpanel	397	230.7	236.9	50.2	0.96	23.5	54.65	5.3	10.5
			393.8	227.5	249	49.38	0.89	24.9	55.24	5.3	10
			398	228	247.5	50	0.88	26	56.03	4.9	10.4
4	SSB-1	Pillarpanel	388	222	49.6	11	0.91	4.9	11.3	5.2	51
			388.2	225	37.5	7.5	0.86	4.32	8.62	5.5	34.7
			385	222.5	43	8.4	0.88	4.3	8.5	5.3	30
5	PSB-1	A-Blockpower	397.5	227.2	32	5.8	0.8	4.11	6.85	6.1	27.5
			398.3	230.4	33.9	4.68	0.8	3.41	5.75	5.8	42.5
			394.9	228.7	21.5	3.06	0.65	3.54	4.7	5.6	20.2
5	PSB-2	A-Blockpower	404.7	234.18	32	3.29	0.68	3.54	4.84	7.9	43.2
			401.6	231.93	33.9	3	0.78	3.25	4.25	8	46
			404.5	233.21	21.5	3.39	0.8	3.26	4.26	8.3	45.5
6	LSB-6	C-BlockLighting	395	226.5	10.2	1.64	0.82	1.1	1.98	5.4	8.8
			395.5	229.3	8.9	1.48	0.73	2.02	1.36	5.5	15.6
			394	227.7	21	3.57	0.74	3.22	4.82	5.3	21.2
7	LSB-2	B-BlockLighting	396.7	228	21.1	3.96	0.86	2.36	4.61	5.5	15
			397.7	230	5.8	1.24	0.93	0.47	1.33	5.3	15
			395.1	228	12.4	2.47	0.88	1.19	2.58	5	8.9
8	LSB-3	PowerRoom	394.6	226	5.9	1.28	0.95	0.41	1.35	5.9	12
			394.5	228	7.2	1.64	1	0	1.64	5.8	12.6
			392.4	225.5	9.2	1.89	0.94	1.2	2.96	5.1	11
9	LSB-7	PolytechnicLighting	395	227	9.4	2.1	1	0	2.1	5.6	10.3
			395.3	228.5	15	3.58	0.95	1.1	3.76	5.3	15
			392	226	13.1	2.93	1	0	2.93	5	16
10	LSB-1	A-BlockLighting	394.6	227	16.6	3.11	0.82	2.15	3.78	5.7	10.3
			394.9	228.7	16.7	3.06	0.81	2.2	3.78	6	10.5
			392.3	226	23.6	4.63	0.85	2.9	5.5	5	10.5
11	PSB-3	Newpillarpanel	399	229.7	41.8	8.54	0.89	4.17	9.53	5.6	4.6
			398	231	55.9	11.97	0.92	4.9	12.95	5.5	4.7
			394	228	37.1	8.4	0.9	3.92	8.56	4.8	4.8

AnnexureXVII

PRIST DEEMED
UNIVERSITY,Westcampus,Vallam
UPS Details ,Loads & Measurment Readings

S.No	Location	UPSDetails	DetailsofSystems&loads				Phase	Volts	Amps	KW	PF	KVAr	KVA	VoltageHarmonics								CurrentHarmonics							
				TFT	CRT	Others								THD	3rd	5th	7th	9th	11th	13th	15th	THD	3rd	5th	7th	9th	11th	13th	15th
1	ECEDept. A-Block GroundFloor	30KVA/3Ph. Numeric/DC360V,	NW&D.S.P.Lab	25		1	Input																						
			EmbeddedLab	32		1	R	224	16	2.07	0.59	2.85	3.65	7.33	0.9	3.6	5.5	0	1.5	1.9	0	85	9.3	65.5	44	3	5.6	9.8	0.7
			VirtualInstr.Lab	18		1	Y	224.5	20.1	2.72	0.6	3.61	4.54	7.2	3.1	3.5	5.1	2.1	1.5	1.6	0	85	7.4		32	2.3	4.1	6	0
			PowerElectron.Lab	2			B	222	17.1	1.78	0.46	3.21	3.84	7	3.8	3.4	4.1	1.5	1.1	1.6	0	87.8	2.6	8.4	5	0.4	1.2	0.9	0
							Total		17.1	6.57	0.53	9.67	12.03																
							Output	226	33	5.39	0.71	5.17	7.49	6.9	3.7	3.7	2.2	2.5	2.2	0.8	0.8	90.5	18.7	10.5	4.1	2.2	1.3	0.8	0.8
							Loss			1.18			4.54																
2	PG comp. centerA-Block FirstFloor	30KVA/3Ph Numeric/DC310V	Directorroom	1	1		Input																						
			MainLibrary	2		1	R	227	14.1	1.65	0.52	2.81	3.29	7	0.7	0.3	2	0.5	13	8	1	110	15	73	64.5	5.8	32.1	20	3.1
			Office	1		1	Y	227	16.2	1.96	0.51	3.1	3.67	6.5	0.3	2.2	5.4	0	0.4	1.3	0	107	0.6	7.7	7	0	3.1	2.1	0
			Exam.Cell	2		3	B	225	13.5	1.37	0.46	2.57	2.91	6	0	3.1	0	0	0	0.7	2.2	109	21.2	73.7	60.1	9.4	42	29	1.2
			Principalroom	1			Total		43.8	4.98	0.5	8.48	9.87																
			PGcomputerLab	73			Output	226.6	17.1	2.88	0.74	2.62	3.84	7.5	4	4.4	3.6	2.3	0.6	0.3	0	83.7	8.5	5.1	1.8	1	0.5	0.4	0.5
			Comm.Skills		32	1	Loss			2.1			6.03																
			Conferenceroom.	1		1																							
3	UG Computercenter. B-Block GroundFloor	30KVA/3Ph Numeric/DC310V	UGComputerLab-1		63	3	R	230.5	19.5	2.4	0.5	3.89	4.53	9.2	0.5	5.6	6.6	0.5	1.3	0.3	0	83	1.1	9.8	6.4	0.3	1	1.2	0.4
			UGComputerLab-2		56	2	Y	234.5	17	2.05	0.54	3.27	3.92	8.9	0.3	5.1	6.5	0.8	1	1.7	0.9	90.9	0.9	8.1	6.7	0.4	1.3	0.8	0
							B	232	16.6	2.43	0.59	3.53	4.6	8.7	0.4	5.7	6	0.4	1.4	1.9	0.3	83.4	1.6	9.5	6.5	0.6	1.6	0.7	0.5
							Total		53.1	6.88	0.54	10.69	13.05																
							Output	227.4	23.5	4.22	0.79	3.28	5.35	6.1	4.5	3.2	1	1.1	1.5	0.7	0.7	73	66	29.4	6.4	3.2	2.8	1.5	1.5
							Loss			2.66			7.7																
4	ITLab. B-Block GroundFloor	15KVA/3Ph/Numeric /DC240V	ITLab.		54	2	Input																						
			BBlockexamcell	1		1	R	236	12.5	1.32	0.52	2.26	2.81	28	1.5	7.9	11.3	1.4	3.5	3.8	0.4	62	4.6	0.3	2.8	1.7	0	0.3	0.7
							Y	234	4.9	0.78	0.76	0.64	1.01		6	0	3.3	4	0.5	1.9	1.1		2.4	0	1.7	1.2	0	0.3	0
							B	233	3.2	0.59	0.7	0.52	0.74	5.4	0	3	4.5	0	1.4	1.4	0	103	2	75	50.9	3.3	12.3	7.7	3.1
							Total		20.6	2.69	0.66	3.42	4.56																
							Output	230	5.4	0.88	0.68	0.93	1.26	3.1	0.6	2.5	1	0.8	0.5	0.9	0.5	100	77.4	50.5	25.8	10	9.1	6.8	2
							Loss			1.81			3.3																
5	Serverroom. C-Block FirstFloor	2Nos.50KVA 3Ph/NumericD igital/DC360V	Deanroom	1	1		Input																						
			Admissionhall			1	R	220	29.3	4.28	0.64	4.98	6.47	8.4	0	4.9	6	0	2	1.8	0.3	68.7	100	1.2	59.8	32.4	1.7	8.3	11
			Director	11		1	Y	213.6	27	3.56	0.62	4.66	5.82	7.4	0.4	4.1	5.2	0.4	1.2	1.5	0	72.2	5.5	65.6	39.8	1.7	3.3	9.7	7.9
			FacultyII	1	3	1	B	215.4	23.3	3.53	0.62	4.09	5.03	7.2	0.8	3.9	5.8	0.3	0.6	1.6	0.4	78.4	18.8	1.7	11.7	7.6	0.6	0.7	2.3
			Computercenter-1	96		3	Total		79.6	11.37	0.63	13.73	17.32																
			Internetcenter	36		3	Output																						
			Smartclassroom	1		1	R	229.4	19.4	3.1	0.71	3.17	4.4	3.9	2.7	2.2	1.1	6.5	0.3	0	0	93.8	65.9	47	18.2	8.3	6.3	2.2	1.2
			Server	7		1	Y	229.4	6.9	1	0.63	1.19	1.59	2.9	1.5	1.3	0.7	0.3	0	0	0	120	78.9	56.9	37	13.5	4.6	7.7	5.2
			Computercenter-2	36		3	B	229.1	21.3	3.68	0.73	3.33	4.97	4.9	3.1	2.2	0.8	0.4	0.6	0.3	0.3	85.3	62.7	37.9	14.2	5.4	3.6	1.4	2.4
			Computercenter-3	96		3				7.78	0.69	7.69	10.96																
							Loss			3.59			6.36																
			SiscoLab	48		2	Input																						
			Storeroom	1			R	220.7	20.1	2.67	0.59	3.56	4.45	7.9	0.7	3.9	5.7	0.6	0.7	1	0	82.5	4.8	73	49.4	1.9	8.6	8	0
			ProviceChancellor	1		1	Y	224.5	20.1	2.72	0.6	3.61	4.54	7.6	0.3	3.9	5.3	0	0.3	1	0	80.6	4.2	79	57	1.7	12	4	0.8
				2			B	217.6	20.4	2.53	0.57	3.7	4.46	6.8	0.3	3.5	4.6	0	0.4	0.8	0	83.1	3	77.1	58.5	2.2	15	1.4	2.4
			Dean-Science	1			Total		20.3	7.92	0.59	10.87	13.45																
			Director-Acadamic	1			Output																						
			SrAdvisor	1		1	R	229.8	10.2	2.3	0.69	2.2	3.02	3.8	2.1	1.8	1	0	0.5	0.3	0	103	80.3	53.1	27	7.1	12.7	2.4	0
			ProChancellor	2		2	Y	230.3	9.8	1.52	0.65	1.72	2.27	3	1.5	1.3	0	0.3	0	0	0	109	84.7	58.2	32.4	12	6	7	4.2
			Officeroom	4		1	B	228.9	17.6	2.99	0.72	2.82	4.09	3.8	7	4.6	2.6	0.7	1	0.6	0.5	90.5	74.8	45	18.5	5.4	0.6	4.4	1.7
			RegistrarOffice	1		1				6.81	0.69	6.74	9.38																

			CentralAdmn.	3		4	Loss			1.11			4.07																		
			Director-Dis.Edu	6		2																									
			ControllerofExam.	1		1																									
			Addl.Con.Exam.	4		2																									
			COEoffice	3		1																									
			DeputyCOE	1																											
			Confidentialroom	6		1																									
6	R&D Dept. PRCETBlock	5KVA/1Ph/Numeric /DC240V	R&DDept.		13	1	Input	234.2	3.9	0.8	0.79	0.6	1.09	8.3	0	4.7	5.8	0	0.9	2.6	0.5	77	41	1.9	27.7	14	5.3	3.1	10.8
			Principalroom		4	2																									
			Exam.Cell		2	1	Output	229	4.2	0.6	0.58	0.82	1.09	2.8	2.1	1.2	1	0.5	0	0.3	0.4	122	2.6	63.5	2.1	11.2	7.8	3.8	3.7
							Loss			0.2			0																	
7	Health Centre	5KVA/1Ph/Numeric /DC240V	Estateoffice	1			Input																								
			Cashcounter	2		2	Output	228	0	0.47	0.8	0.44	0.7	1.6								70								
8	B-Block GroundFloor	15KVA/3Ph/Numeric /DC240V	EEEComputerroom	35		1	Input																								
			TransducerLab	7			R	207	5	1	0.8	0.76	1.25	8	0.9	4	6	0	0.5	1.6	0	81.2	41	58.4	32.9	4	7.8	12.6	5.5
							Y	235.7	5.3	1.05	0.81	0.72	1.27	7.1	0	3.7	5.2	0.4	0.3	1.4	0.6	71.6	4.5	56.6	26.6	3	6.2	10.5	4
							B	228.2	5.5	1.05	0.81	0.74	1.29	6.4	0.7	3.1	4.5	0.4	0.3	0.6	0	71.1	2.6	52.4	23.3	0.9	4.4	5.2	1.5
							Total		15.8	3.1	0.81	2.22	3.81																	
							Output	227.1	13.7	2.17	0.7	2.26	3.18	4.8	2.2	3.3	1.5	0.9	1.4	0.6	0.6	97	79.1	47.7	20.8	8.5	6.5	3.4	3.3
							Loss			0.93			0.63																	
9	L - Block computerLab	60KVA / 3Ph/ NumericDigital/DC 360V	Computercenter-1	180			Input																								
			Computercenter-2	75	45		R	228	30.9	4.16	0.58	5.75	8.13	7.3	0.4	1.5	0.3	0.5	5.3	4	0	77.8	4.8	64.6	40.2	1.2	1.8	10	0.5
							Y	225.6	30.9	4.46	0.58	6.31	7.78	7.4	0.3	4.5	5.5	0.7	0.3	1.6	0.4									
			Library		2		B	227.4	32.2	4.09	0.58	5.58	7.34	6.9	0.4	4.1	3.9	4.5	0	0.4	0.9	80.4	6	6.6	40.1	1.6	0.6	1.7	9.5
							Total		94	12.71	0.58	17.64	23.25																	
							Output																							
							R	228.2	23.1	3.84	0.71	3.71	5.33	5.3	4.7	2.8	1	0.6	0.6	0.3	0.3	89	4.8	64.6	40.2	1.2	1.8	10	0.5
							Y	229.2	21.3	3.35	0.71	3.33	4.71	3.8	4.4	2.8	0.9	0.5	0.5	0	0	94.5	79	45.8	73.7	6.3	2.7	2.1	0
							B	227.9	24	3.88	0.71	3.95	5.49	6	4.7	2.8	1	0.6	0.6	0.3	0.3	92.5	13.6	7.9	3	1.1	1.2	0.4	0.4
							Total			11.07			15.53																	
							Loss			1.64			7.72																	
10	Polytechnic-I	15KVA/3Ph/Numeric	ComputerLab		50		Input																								
			Server	2		2	R	230	5.8	1.48	0.89	0.79	1.67	4.8								53.2							
							Y	223	7	1.44	0.87	0.73	1.6	4.1								51.2							
							B	230	7	1.42	0.87	0.8	1.64	4.8								57.8							
							Total			4.34			4.91																	
							Output	227	20.8	3.8	0.71	3.31	4.74	6.2								198							
							Loss			0.54			0.17																	
11	Polytechnic-II	30KVA/3Ph Numeric DC240V	Officeroom	1	2	1	Input																								
			Computercenter		71		R	230	10.6	1.16	0.47	2.22	2.5	5.5	0.3	2.9	4.3	0	0.6	0.5	0	94	4.5	74.3	55.3	2.5	16.5	2.6	2.3
							Y	228.2	9.8	1.15	0.49	1.94	2.24	5.2	0.4	2.5	3.9	0	0.7	0	0.4	97	6.1	76.5	51.3	2.8	15.4	3.1	1.2
							B	231.3	10.9	1.32	0.52	2.31	2.7	5.6	1.5	8	11	0.7	1.2	1.4	1.2	92	9.3	72.8	54.7	2.8	11.7	3.5	2
							Total			3.63			7.44																	
							Output	229.3	15.8	2.9	0.73	2.7	3.98	7.3	4.2	5.5	2.2	1.4	0.5	0	0	85	74.8	37.8	11.8	9.1	6.2	3	4.3
				833	399	64	Loss			0.73			3.46																	
12	Polytechnic-II			Noload			Input																								
							R	232.9	2.9	0.2	0.3	0.63	0.741	4.8								175							
							Y	230.1	2.5	0.172	0.29	0.55	0.572	4.5								170							
							B	233.1	2.6	0.224	0.36	0.61	0.65	5								160							
							Total			0.596	0.32	1.79	1.963																	
							Output																							

AnnexureXVIII

	PRIST DEEMED UNIVERSITY,Westcampus,Vallam						
	Main MV Panel Capacitor measurement readings						
	ReactivecurrentinAmps.						
Sl.no.	Location	Phase	Capacitor-1	Capacitor-2	Capacitor-3	Capacitor-4	Total
1	MainMVPanel		25KVAR	25KVAR	10KVAR	19KVAR	79KVAR
		R	28.9	29.5	11.7	21.2	91.2
		Y	29.8	30.1	12	18.3	90.8
		B	29	29.5	12.2	18.7	95

AnnexureXIX

	Motors measurement readings							
Sl.no.	Location	Phase	Volts	Amps	KW	PF	KVAr	KVA
1	L-Block	R	217.7	8.8	1.49	0.78		
	5HP	Y	218	9	1.56	0.79		
		B	217.9	8.5	1.48	0.8		
					4.53			
2	Near Canteen							
	3HP		399	4.6	2.22	0.697		
3	Near B Block							
	15HP		405.9	20.2	4.8	0.588	6.59	8.14
4	Near Hostel							
	5HP	R	222.3	8.6	1.55	0.81	1.13	1.93
		Y	223.2	8.9	1.57	0.79	1.22	1.99
		B	220.4	8.4	1.45	0.78	1.1	1.84
					4.57			

AnnexureXX

Street Lights measurement readings								
Sl.no.	Location	Phase	Volts	Amps	KW	PF	KVAr	KVA
	PanelRoom							
1	St.light-1	R	220.6	2	0.4	0.8	0.22	0.46
	4x250W-SVL	Y	221	0	0	1	0	0
		B	217	2	0.17	0.36	0.44	1.464
					0.57			
2	St.light-1	R	219	2.4	0.45	1	0	0.45
	7x250W-SVL	Y	221.2	7.5	0.278	0.17	1.62	1.64
		B	218.5	4.1	0.308	0.34	0.87	0.94
					1.036			
3	PillorBox							
	Circuit-1	R	208	5.1	0.831	0.78	0.67	1.67
		Y	207.7					
		B	207.3					

PRIST DEEMED UNIVERSITY, West campus, Vallam

ACBTU CALCULATION

AnnexureXXI

	Location	L	B	Area BTU		Door&Window BTU		Occupants BTU		Equipments BTU		LightingBTU		Total BTU	AC required	ACAvilable				
				Sq.M	BTU	Sq.m	BTU	Persons	BTU	Watts	BTU	Watts	BTU			Details				Total
I	**C-Blockgroundfloor**															1Ton	1.5 Ton	2Ton		Tons
1	Admissionhall	14.2	10.2	144.84	20422.44	15	18225	50	30000	450	1530	864	3888	74065	6.2		4		4	6
2	Computercentre-1	19	9	171	24111	20	24300	100	60000	30	102	704	3168	111681	9.3		2	2	4	7
3	InternetCentre	9.3	9.3	86.49	12195.09	12	14580	40	24000	30	102	352	1584	52461	4.4			2	2	3
4	Smartclassroom	10.6	8.4	89.04	12554.64	12	14580	30	18000	750	2550	244	1098	48783	4.1		2		2	3
5	Server room	10.6	2.2	23.32	3288.12	8	9720	1	600	700	2380	400	1800	17788	1.5	2			2	2
6	Computercentre -2	9.3	9.3	86.49	12195.09	15	18225	40	24000	2700	9180	352	1584	65184	5.4			2	2	3
7	Computercentre -3	19	9	171	24111	20	24300	40	24000	2700	9180	352	1584	83175	6.9			4	4	3
II	**C-BlockFirstfloor**																		0	
1	Pro-vicechancellorroom	4.7	4.4	20.68	2915.88	10	12150	2	1200	225	765	144	648	17679	1.5		1		1	1.5
2	Senioradvisorroom	4.6	4.4	20.24	2853.84	10	12150	2	1200	200	680	144	648	17532	1.5		1		1	1.5
3	Prochancellorroom	9.4	3.8	35.72	5036.52	15	18225	2	1200	320	1088	180	810	26360	2.2			2	2	2
4	Chancellorroom	7.4	6.4	47.36	6677.76	5	6075	10	6000	350	1190	220	990	20933	1.7		1	1	2	4
5	Office room	4.4	3.6	15.84	2233.44	10	12150	5	3000	750	2550	252	1134	21067	1.8			1	1	2
6	Vicechancellorroom	4.8	3.4	16.32	2301.12	10	12150	2	1200	400	1360	252	1134	18145	1.5		1		1	2
7	Registerroom	4.7	4.4	20.68	2915.88	10	12150	2	1200	300	1020	144	648	17934	1.5				0	2
8	Central adminroom	14	13.9	194.6	27438.6	15	18225	18	10800	2250	7650	550	2475	66589	5.5	2			2	2
III	C-BlockSecondfloor																		0	
1	Controller of examination	6.4	6	38.4	5414.4	5	6075	2	1200	400	1360	180	810	14859	1.2		1		1	1.5
2	Addl.Controllerofexamination	6.1	4.6	28.06	3956.46	5	6075	2	1200	200	680	88	396	12307	1.0		1		1	1.5
IV	PolyTechnic,GroundFloor																		0	
1	ComputerLab	12.2	9.2	112.24	15825.84	10	12150	52	31200	3000	10200	900	4050	73426	6.1		2		2	3
V	Poly Technic, First Floor																		0	
1	Computer centre	13.2	9.2	121.44	17123.04	12	14580	72	43200	5000	17000	500	2250	94153	7.8		2		2	3
VI	Health centre, GroundFloor																		0	
1	Server room	2.45	2.45	6.0025	846.3525	5	6075	0	0	200	680	55	247.5	7849	0.7		1		1	1.5
VII	Healthcentre,FirstFloor																		0	
1	Guestroom-1	4.88	3.8	18.544	2614.704	10	12150	2	1200	500	1700	200	900	18565	1.5		1		1	1.5
2	Guestroom-2	4.88	3.8	18.544	2614.704	10	12150	2	1200	200	680	50	225	16870	1.4		1		1	1.5
VIII	B-Block (GroundFloor)																		0	
1	Biology Lab	8	4.6	36.8	5188.8	10	12150	15	9000	250	850	100	450	27639	2.3		1		1	1.5
2	UGComputerLab	14.75	8	118	16638	25	30375	60	36000	4500	15300	450	2025	100338	8.4		6		6	9
3	UGComputerLab(Server)	5.3	4.6	24.38	3437.58	10	12150	10	6000	600	2040	100	450	24078	2.0		1		1	1.5
IX	A-Block (GroundFloor)																		0	
1	DSPLab	9.3	8.1	75.33	10621.53	10	12150	10	6000	1000	3400	250	1125	33297	2.8		1		1	1.5
2	Principalroom	8.1	4.4	35.64	5025.24	5	6075	4	2400	200	680	150	675	14855	1.2		1		1	1.5
3	Communication skills-Comp.lab	14.3	8.1	115.83	16332.03	20	24300	35	21000	3000	10200	650	2925	74757	6.2		2		2	3
4	PGcomputerLab	19.1	8.1	154.71	21814.11	25	30375	75	45000	5250	17850	518	2331	117370	9.8			4	4	8
5	ConferenceHall	31	8.1	251.1	35405.1	35	42525	50	30000	1200	4080	5000	22500	134510	11.2		1	5	6	11.5
6																			0	
X	**L-Block(FirstFloor)**																		0	
1	Computer centre	18.5	10.3	190.55	26867.55	25	30375	120	72000	10000	34000	450	2025	165268	13.8			3	3	6
2	Computer centre	30	10.3	309	43569	45	54675	180	108000	12000	40800	500	2250	249294	20.8			5	5	10
3	Library	22	12.5	275	38775	25	30375	25	15000	1000	3400	500	2250	89800	7.5			5	5	10
		22	23.2	510.4	71966.4	30	36450	10	6000	850	2890	400	1800	119106	9.9				0	
															170.6	**4**	**34**	**36**	74	**121**

AnnexureXXII

PRIST DEEMED UNIVERSITY,Westcampus,Vallam			
Assessed Load & AnnualConsumption			
Sl.no.	**Category**	**KW**	**KWhrs**
1	AC	145.2	122400
2	Lighting	64.64	95204
3	Comp.sys.	143.46	188871
4	Motor	16.13	17460
5	Fan	95.06	104461
6	UPS	16	63910
7	Other&Lab	373	90000
8	Private	15.75	32145
	Total	**869.24**	**714451**

AnnexureXXIII

PRIST DEEMED UNIVERSITY,Westcampus,Vallam

Lighting Energy wastage calculation

Sl.No	Floors	RoomSizeinmetres L	W	H	Mtce. Ht.in Mtr.	L+ W	Room Index	Oper. Hrs.	Watts per fitting	No. of lamps	Total Watts	Areai nM²	Watts/ M²	Measd Avg. Lux	Mesdav g.lux/ (W/M²)	Target lux/ (W/M²)	ILER	Annual Working days	Annualwa stage KWhrs Per	All
Front Area																				
1	MVPanelRoom	13.1	6.8	3	2.25	19.9	1.99	13	55	11	605	89.08	6.79	60	9	46	0.19	365	2321	
2	MSBPanelRoom	5.4	6	3	2.5	11.4	1.14	12	55	4	220	32.4	6.79	66	10	40	0.24	365	728	
3	Civilroom-oldest.of	3	3.4	3	2.5	6.4	0.64	8	55	1	55	10.2	5.39		0	32	0.00	200	88	
4	FrontRoom	3.4	3	3	2.5	6.4	0.64	8	55	1	55	10.2	5.39	58	11	32	0.33	250	73	
5	SecurityRoom(Office)	2.4	2.3	3	2.5	4.7	0.47	12	55	1	55	5.52	9.96	118	12	30	0.39	365	146	
6	SecurityRoom	2.4	2.3	3	2.5	4.7	0.47	12	55	1	55	5.52	9.96	107	11	30	0.36	365	155	
A-Block (GroundFloor)																				
7	MaterialRoom	9.3	7.5	3	2.25	16.8	1.85	8	55	1	55	69.75	0.79	49	62	45	1.37	200	-32	
8	StoreStackRoom	4.9	4	3	2.25	8.9	0.98	8	55	2	110	19.6	5.61		0			200	176	
9	Staffroom	7.5	4	3	2.25	11.5	1.16	4	55	4	220	30	7.33	44	6	38	0.16	250	185	
10	ClassRoomD2,D3,D4.	9.3	7.5	3	2.25	16.8	1.85	6	55	4	220	69.75	3.15	63	20	45	0.44	251	184	368
11	EEEComputerRoom	9.3	7.5	3	2.5	16.8	1.66	3	55	4	220	69.75	3.15	70	22	44	0.51	250	82	
12	TransducerLab	9.3	7.5	3	2.25	16.8	1.85	8	55	2	110	69.75	1.58	65	41	45	0.92	250	19	
A-Block (FirstFloor)																				
15	ClassRoom5,6,7,8,9,10	9.3	7.5	3	2.25	16.8	1.85	8	55	1	55	69.75	0.79	64	81	45	1.80	250	-88	-440
16	Staffroom(Gents)	4.8	3.6	3	2.25	8.4	0.91	8	55	3	165	17.28	9.55	57	6	35	0.17	250	273	
17	FacutyRoom	12.5	4	3	2.25	16.5	1.35	8	55	2	110	50	2.20	64	29	42	0.69	250	67	
18	ClassRoom11,12,13,14	9.3	7.5	3	2.25	16.8	1.85	6	36	15	540	279	1.94	63	33	45	0.72	250	224	672
19	ConferenceRoom(DrawingRoom)	9.3	7.5	3	2.5	16.8	1.66	4	108	4	432	69.75	6.19	156	25	44	0.57	200	148	
21	ElectronicsystemDesignlab	8.1	9.5	3	2.25	17.6	1.94	8	22	9	198	76.95	2.57	82	32	45	0.71	250	115	
22	ElectronicCircuitLab	8.1	9.6	3	2.25	17.7	1.95	8	22	9	198	77.76	2.55	99	39	45	0.87	250	53	
23	NW&Digi.sig.ProcessingLab	9.7	8.1	3	2.25	17.8	1.96	8	22	9	198	78.57	2.52	99	39	45	0.88	250	49	
24	VLSI&EmbeddedLab	8.1	9.6	3	2.25	17.7	1.95	4	22	9	198	77.76	2.55	79	31	45	0.69	250	61	
25	H.O.D(E.C.E)	4.6	8.1	3	2.25	12.7	1.30	8	22	4	88	37.26	2.36	82	35	41	0.85	250	27	
26	Microwave&FibreOpticsLab	9.3	8.1	3	2.25	17.4	1.92	4	108	5	540	75.33	7.17		0	45	0.00	250	540	
27	CommunicationLab	8.1	9.6	3	2.25	17.7	1.95	3	22	9	198	77.76	2.55	100	39	45	0.87	250	19	
28	virtualcommunicationLab	9.5	8.1	3	2.25	17.6	1.94	8	22	8	176	76.95	2.29	56	25	45	0.55	250	159	
29	PowerElectronicsLab	9.3	8.1	3	2.25	17.4	1.92	4	36	9	324	75.33	4.30	94	22	45	0.49	250	167	
30	DirectorRoom	4.6	8.1	3	2.25	12.7	1.30	6	55	4	220	37.26	5.90	202	34	41	0.83	250	55	
31	MainLibrary	39	8.1	3	2.25	47.1	2.98	8	55	16	880	315.9	2.79	45	16	49	0.33	250	1179	
32	ElectronicsLab	7.2	8.1	3	2.25	15.3	1.69	3	55	2	110	58.32	1.89		0	44	0.00	250	83	
33	ClassroomsA5,A6,A7,A8,A9.	8.1	9.4	3	2.25	17.5	1.93	8	55	4	220	76.14	2.89	49	17	45	0.38	250	273	992
34	StaffRoom	8.1	4.4	3	2.25	12.5	1.27	6	36	6	216	35.64	6.06	85	14	40	0.35	250	211	
35	OfficeRoom	8.1	9.5	3	2.25	17.6	1.94	4	55	4	220	76.95	2.86	40	14	45	0.31	250	151	
36	officeRoom(Reception)	9.4	8.1	3	2.25	17.5	1.93	8	55	6	330	76.14	4.33	53	12	45	0.27	250	482	
37	ExamCell	9.4	6.1	3	2.25	15.5	1.64	7	102	12	1224	57.34	21.35	53	2	44	0.06	250	2021	
39	P.G.ComputerLab	19.1	8.1	3	2.25	27.2	2.53	3	40	12	480	154.71	3.10	150	48	48	1.01	250	-3	
40	CommunicationSkillsLab	14.3	8.1	3	2.25	22.4	2.30		110	24	2640	115.83	22.79	152	7	47	0.14	250	0	
41	ConferenceRoom	31	8.1	3	2.25	39.1	2.85	2	108	4	432	251.1	1.72	286	166	49	3.40	200	-414	
		31	8.1	3	2.25	39.1	2.85													
42	StaffRoom	4.5	8.1	3	2.25	12.6	1.29	8	55	1	55	36.45	1.51	35	23	40	0.58	250	46	
B-Block (SecondFloor)																				
44	ClassRoom1,2,3,4	8.1	9.4	3	2.25	17.5	1.93	8	55	4	220	76.14	2.89	47	16	45	0.36	250	281	843
45	DrawingRoom	14.7	9.5	3	2.5	24.2	2.31	3	55	5	275	139.65	1.97	25	13	47	0.27	250	151	
B-Block (ThirdFloor)																				
46	Spareroom	9.6	9.5	3	2.5	19.1	1.91	8	55	3	165	91.2	1.81		45	45	1.00	250	0	
47	Canteen	31	8.3	3	2.25	39.3	2.91	4	55	8	440	257.3	1.71	25	15	49	0.30	250	308	
	Canteen1stFloor	31	8.3	3	2.25	39.3	2.91	2	55	4	220	257.3	0.86	20	23	49	0.48	250	57	
48	Staffcanteen	6.2	3.3	3	2.25	9.5	0.96	4	55	2	110	20.46	5.38	46	9	35	0.24	250	83	
49	LadiesCanteenLeftSide	6.3	23	3	2.25	29.3	2.20	4	55	5	275	144.9	1.90	19	10	47	0.21	250	216	
50	LadiesCanteenRightSide	6.3	23	3	2.25	29.3	2.20	4	55	4	220	144.9	1.52	19	13	47	0.27	250	161	
51	Kitchen	3.4	9.2	3	2.25	12.6	1.10	8	36	4	144	31.28	4.60	56	12	37	0.33	250	193	
52	StoreRoom	3.7	3.4	3	2.5	7.1	0.71	4	55	1	55	12.58	4.37	35	8	34	0.24	250	42	
C-Block (GroundFloor)																				
53	Bio-ProcessLab	8	4.7	3.25	2.75	12.7	1.08	4	55	2	110	37.6	2.93	27	9	37	0.24	250	83	
		8	4.7	3.25	2.75	12.7	1.08	8	55	2	110	37.6	2.93	27	9	37	0.24	250	166	
54	B2-MolecularBiologylab	8	4.8	3.25	2.75	12.8	1.09	1	110	2	220	38.4	5.73	51	9	37	0.24	250	42	
		8	4.6	3.25	2.75	12.6	1.06	8	55	2	220	36.8	5.98		0	37	0.00	250	440	
55	Instr.Analy.&chem.Engg.Lab	14.4	8	3	2.5	22.4	2.06	3	55	6	330	115.2	2.86		0	46	0.00	250	248	
56	PhysicsLab	14.8	8	3	2.25	22.8	2.31	1	55	6	330	118.4	2.79	54	19	47	0.41	250	48	
57	CellBiologylab	9.8	8	3	2.5	17.8	1.76	6	55	2	110	78.4	1.40	41	29	44	0.67	250	54	
		9.8	8	3	2.25	17.8	1.96		55	2	110	78.4	1.40		0	45	0.00	250	0	
58	DEANRoom	4.5	8	3	2.25	12.5	1.28	6	22	2	44	36	1.22	74	61	40	1.51	250	-34	
		4.5	8	3	2.25	12.5	1.28	6	36	2	72	36	2.00		0	40	0.00	250	108	
		4.5	8	3	2.5	12.5	1.15	6	40	1	40	36	1.11		0	38	0.00	250	60	
59	MicroBiologyRoom	19.2	8	3	2.375	27.2	2.38	10	110	5	550	153.6	3.58	125	35	47	0.74	250	354	
60	UGComputerLab(Centre-1)	14.75	8	3	2.5	22.75	2.07	8	110	9	990	118	8.39	178	21	46	0.46	250	1068	
		5.3	4.6	3	2.25	9.9	1.09	8	110	2	220	24.38	9.02	100	11	37	0.30	250	308	
		4.6	2.4	3	2.25	7	0.70	4	55	1	55	11.04	4.98	59	12	34	0.35	250	36	
61	UGComputerLab(Centre-2)	14.5	8	3	2.25	22.5	2.29	8	55	8	440	116	3.79		0	47	0.00	250	880	
62	Chemistrylab	19	8	3	2.25	27	2.50					152	0.00	39				250		
	B-Block(NEWC)(FirstFloor)																			
63	ClassroomB4,B5,B7B8,B 9,B10,B11,B12,B13,B14, B15,B16	9.5	8	3	2.5	17.5	1.74	2	55	4	220	76	2.89	47	16	44	0.37	250	69	759

64	staffRoomB6	9.5	8	3	2.5	17.5	1.74	6	55	4	220	76	2.89	41	14	44	0.32	250	224	
65	LadiesstaffRoom	8	4.7	3	2.25	12.7	1.32	8	55	2	110	37.6	2.93	40	14	41	0.33	250	147	
66	I.TLab	14.5	8	3	2.25	22.5	2.29	5	110	9	990	116	8.53	122	14	47	0.30	250	861	
		14.5	8	3	2.5	22.5	2.06	5	55	1	55	116	0.47		0	46	0.00	250	69	
67	ClassroomB17,B18, B19,B20,B21,B22,B23,B24,B25,B26.(=B4)	9.5	8	3	2.5	17.5	1.74	2	55	4	220	76	2.89	47	16	44	0.37	250	69	629
68	StaffRoom	8	4.8	3	2.25	12.8	1.33	2	55	2	110	38.4	2.86	40	14	41	0.34	250	36	
69	DirectorRoom	8	4.8	3	2.25	12.8	1.33	8	55	2	110	38.4	2.86	46	16	41	0.39	250	134	
70	B-BlockExamcell																			
71	StaffRoom	8	4.5	3	2.25	12.5	1.28	8	55	2	110	36	3.06	40	13	40	0.33	250	148	
EEE Department(Workshop)																				
73	StaffRoom	4.4	4.4	3	2.5	8.8	0.88	5	55	1	55	19.36	2.84	40	14	35	0.40	250	41	
74	StoreRoom	4.4	4.4	3	2.25	8.8	0.98	8	55	1	55	19.36	2.84	22	8	36	0.22	250	86	
75	ElectriccircuitsLab	4.4	8.8	3	2.25	13.2	1.30	3	55	2	110	38.72	2.84	42	15	44	0.34	250	55	
76	ElectricMachineslab	41	12.2	3	2.25	53.2	4.18	4	110	9	990	500.2	1.98	28	14	52	0.27	250	721	
M-Block(GroundFloor)																				
77	StrengthofmaterialsLab	30	11.2	3	2.25	41.2	3.62	4	55	14	770	336	2.29	26	11	51	0.22	250	599	
M-Block(1stFloor)																				
79	Metrology& Measurement,Dynamics,	6.4	11.2	3	2.5	17.6	1.63	6	55	4	220	71.68	3.07	40	13	44	0.30	250	232	
M-Block(2ndFloor)																				
80	Classroom1,2,3,4.	6.4	11.2	3	2.5	17.6	1.63	6	55	4	220	71.68	3.07	40	13	44	0.30	250	232	
Newhostel(GroundFloor)																				
83	Hostelroom	5	3.65	3	2.5	8.65	0.84	5	55	2	110	18.25	6.03	83	14	35	0.39	250	83	3984
oldHostel																				
91	Hostelroom	5	3.6	3	2.25	8.6	0.93	5	55	2	110	18	6.11	61	10	36	0.28	250	99	7128
L-Block(GF)																				
92	ClassRooms-9nos	9.1	7.6	3	2.25	16.7	1.84	2	55	2	110	69.16	1.59	26	16	45	0.36	250	35	
L-Block(1stFloor)																				
93	ComputerCentre-1	30	10.3	3	2.25	40.3	3.41	5	22	18	396	309	1.28	44	34	51	0.67	250	162	
		30	10.3	3	2.25	40.3	3.41	5	55	1	55	309	0.18		0	51	0.00	250	69	
94	ComputerCentre-2	18.5	10.3	3	2.25	28.8	2.94	5	22	21	462	190.55	2.42	87	36	50	0.72	250	163	
L-Block(2ndFloor)																				
95	ElectronicsLab	7.6	14.25	3	2.25	21.85	2.20	2	55	3	165	108.3	1.52	27	18	47	0.38	250	51	
96	Electronics(Digital)lab	7.6	14.25	3	2.25	21.85	2.20	2	55	3	165	108.3	1.52	32	21	47	0.45	250	46	
97	OpticalLab	7.6	14.25	3	2.25	21.85	2.20	1	55	3	165	108.3	1.52	36	24	47	0.50	250	21	
98	Lab(SameasElectroniclab)	7.6	14.25	3	2.25	21.85	2.20	2	55	3	165	108.3	1.52	29	19	47	0.40	250	49	
99	1stFloor,Library	12.3	25.33	3	2.25	37.63	3.68	2	22	39	858	311.56	2.75	88	32	51	0.63	250	160	
PRCET Block(GF)																				
103	Chemistrylab	19.25	8.2	3	2.25	27.45	2.56	6	55	7	385	157.85	2.44		0	48	0.00	250	578	
104	Room	14	8.2	3	2.25	22.2	2.30	8	55	10	550	114.8	4.79		0	47	0.00	250	1100	
PRCET Block(1stfloor)																				
106	LadiesstaffRoom	8	8.2	3	2.25	16.2	1.80	8	55	5	275	65.6	4.19		0	45	0.00	250	550	
107	LectureHall:E8	6.5	8.2	3	2.25	14.7	1.61	4	55	2	110	53.3	2.06		0	44	0.00	250	110	
108	LectureHall:E7	7.2	8.2	3	2.25	15.4	1.70	4	55	2	110	59.04	1.86		0	45	0.00	250	110	
109	Elec.CrtLab:(StaffRom)	10	8.2	3	2.25	18.2	2.00	4	55	2	110	82	1.34		0	46	0.00	250	110	
110	PhysicsLab	12	8.2	3	2.25	20.2	2.17	4	55	5	220	98.4	2.24		0	46	0.00	250	220	
PRCET Block(2ndfloor)																				
111	Lecturerhall:E12,E14	12	8.2	3	2.25	20.2	2.17	2	110	2	220	98.4	2.24		0	46	0.00	250	110	110
112	Lecturerhall:E13	12	8.2	3	2.25	20.2	2.17	2	110	2	220	98.4	2.24		0	46	0.00	250	110	
115	Lecturerhall:E9,E10,E11.	12	8.2	3	2.25	20.2	2.17	2	110	2	220	98.4	2.24		0	46	0.00	250	110	110
Health Centre:(Block)																				
116	EstateOfficeHall	7.62	4.88	3	2.25	12.5	1.32	2	55	3	165	37.186	4.44		0	41	0.00	250	83	
117	EstateOfficeRoom	4.88	3.66	3	2.25	8.54	0.93	8	55	3	165	17.861	9.24		0	35	0.00	250	330	
118	CashCounterRoom	7.62	4.88	3	2.25	12.5	1.32	8	55	2	110	37.186	2.96		0	41	0.00	250	220	
Health Centre:(Block-1stfloor)																				
119	GuestRoom-1	7.62	4.88	3	2.25	12.5	1.32	4	55	4	220	37.186	5.92		0	41	0.00	250	220	
120	GuestRoom-2	7.62	4.88	3	2.25	12.5	1.32	4	55	1	55	37.186	1.48		0	41	0.00	250	55	
Administrative Block(OldC-Block)-GroundFloor																				
122	Reception	4.7	4.6	2.5	1.75	9.3	1.33	8	22	3	66	21.62	3.05		0	41	0.00	250	132	
123	DeanRoom	4.7	4.6	3	2.25	9.3	1.03	8	55	2	110	21.62	5.09		0	36	0.00	250	220	
124	Admissionhall	14.2	10.2	2.5	1.75	24.4	3.39	4	36	24	864	144.84	5.97	200	33	51	0.66	250	297	
125	DirectorRoom	4.1	2.5	2.5	1.75	6.6	0.89	8	36	1	36	10.25	3.51		0	35	0.00	250	72	
126	FacutyRoom-2	4.1	9	2.5	1.75	13.1	1.61	6	36	6	216	36.9	5.85		0	45	0.00	250	324	
127	FacutyRoom-1	2.4	4.1	2.5	1.75	6.5	0.87	6	36	1	36	9.84	3.66		0	34	0.00	250	54	
	Toilet																			
128	ComputerCentre-1	19	9.4	2.5	1.75	28.4	3.59	6	22	32	704	178.6	3.94	111	28	51	0.55	250	475	
129	Varanda																			
130	InternetCentre	9.3	9.3	**2.5**	1.75	18.6	2.66					86.49	0.00	110		49	0.00	250		
131	SmartClassRoom	10.6	8.4	2.5	1.75	19	2.68	3	22	16	352	89.04	3.95	84	21	49	0.43	250	150	
132	ServerRoom	2.2	10.6	3	2.25	12.8	0.81	5	22	12	264	23.32	11.32		0	34	0.00	250	330	
133	ComputerCentre-2	9.3	9.3	2.5	1.75	18.6	2.66	8	55	2	110	86.49	1.27	110	87	49	1.77	250	-170	
134	Computercenter-3	19	9.4	2.5	1.75	28.4	3.59	6	22	16	352	178.6	1.97	111	56	51	1.10	250	-53	
	Computercenter-4																			
135	Entrance	4.7	4.6	2.5	1.75	9.3	1.33	8	22	1	22	21.62	1.02	108	106	41	2.59	250	-70	
136	SISCOLab	7.2	14.5	2.5	1.75	21.7	2.75	6	36	13	468	104.4	4.48	125	28	49	0.57	250	303	
137	ComputerHardwareRoom	7	14.5	2.5	1.75	21.5	2.70	5	36	11	396	101.5	3.90		0	49	0.00	250	495	
Administrative Block -FirstFloor																				
140	Pro-ViceChancellorRoom	4.7	4.4	2.5	1.75	9.1	1.30	8	36	4	144	20.68	6.96	226	32	41	0.79	250	60	
141	Dr.M.GopalSirRoom	4.8	4.4	2.5	1.75	9.2	1.31	8	36	3	108	21.12	5.11	183	36	41	0.87	250	27	
142	Dean-Science&Humanities	4.7	4.4	2.5	1.75	9.1	1.30	6	36	1	36	20.68	1.74	196	113	41	2.75	250	-94	
143	Director-AcademicAffairs	4.7	4.4	2.5	1.75	9.1	1.30	6	36	1	36	20.68	1.74	196	113	41	2.75	250	-94	
144	SeniorAdvisorRoom1	4.7	4.4	3	2.25	9.1	1.01	8	55	1	55	20.68	2.66	75	28	36	0.78	250	24	
145	SeniorAdvisorRoom2	4.4	4.6	2.5	1.75	9	1.29	8	36	4	144	20.24	7.11	149	21	41	0.51	250	141	
146	Visitorroom	9.4	3.2	3	2.5	12.6	0.95	8	55	2	110	30.08	3.66	56	15	36	0.43	250	126	

147	Pro-ChancellorRoom	5.8	6.1	2.5	1.75	11.9	1.70	6	36	5	180	35.38	5.09	147	29	44	0.66	250	93	
148	OfficeRoom-Front	4.4	3.6	3	2.5	8	0.79	8	55	1	55	15.84	3.47	47	14	33	0.41	250	65	
149	OfficeRoom	7.3	9.1	2.5	1.75	16.4	2.31	8	36	7	252	66.43	3.79	129	34	49	0.69	250	154	
150	ServiceRoom	5.6	3.2	2.5	1.75	8.8	1.16		18	1	18	17.92	1.00	45	45	37	1.21	250	0	
		5.6	3.2	3	2.25	8.8	0.91		55	1	55	17.92	3.07		0	35	0.00	250	0	
152	Vice-Chancellor(VisitorsRoom)	4.8	3.4	2.5	1.75	8.2	1.14	8	36	2	72	16.32	4.41	71	16	37	0.43	250	81	
153	MainRoom	9.4	5.9	2.5	1.75	15.3	2.07	8	36	7	252	55.46	4.54	155	34	46	0.74	250	130	
154	RecordsRoom	3.1	4.5	2.5	1.75	7.6	1.05	6	36	2	72	13.95	5.16	85	16	36	0.46	250	59	
155	RegisterOffice-FrontRoom	4.4	4.7	3	2.5	9.1	0.91	8	55	2	110	20.68	5.32	85	16	35	0.46	250	120	
156	Otherroom	4.8	4.4	2.5	1.75	9.2	1.31	8	36	2	72	21.12	3.41	92	27	41	0.66	250	49	
157	RegistrarRoom	4.7	9.4	2.5	1.75	14.1	1.79	8	36	4	144	44.18	3.26	72	22	45	0.49	250	147	
	Toilet																			
158	Central-Administration Office	4.7	4.6	3	2.25	9.3	1.03	8	55	1	55	21.62	2.54		14	36	0.39	250	67	
	FrontRoom	4.7	4.6	3	2.25	9.3	1.03	2	55	1	55	21.62	2.54	36	0	36	0.00	250	28	
159	MainRoom	14	13.9	3	2.25	27.9	3.10	8	55	13	665	194.6	3.42	110	32	50	0.64	250	474	
Administrative Block-SecondFloor																				
160	ExamCellRoom	12.9	14.1	3	2.5	27	2.69	8	110	8	880	181.89	4.84	91	19	49	0.38	250	1084	
161	StudentsMaterialswarehouse	9.5	9.4	3	2.5	18.9	1.89	8	55	2	110	89.3	1.23		19	45	0.43	250	125	
		9.5	9.4	3	2.5	18.9	1.89	8	55	2	110	89.3	1.23	24	0	45	0.00	250	220	
162	Director-Distance Education	9.3	9.3	3	2.25	18.6	2.07	8	55	4	440	86.49	5.09	50	10	46	0.21	250	692	
163	ControllerofExam.(Frontroom)	6.4	2.5	2.5	1.75	8.9	1.03	8	36	2	72	16	4.50	88	20	36	0.54	250	66	
164	MainRoom	6.4	6	2.5	1.75	12.4	1.77	8	36	5	180	38.4	4.69	152	32	45	0.72	250	101	
165	Addl.Con.ofExam.(FrontRoom)	4.7	4.6	3	2.25	9.3	1.03	8	55	1	55	21.62	2.54	65	26	36	0.71	250	32	
166	Room	6.1	4.6	2.5	1.75	10.7	1.50	8	22	4	88	28.06	3.14	106	34	43	0.79	250	38	
167	Office-1	10.6	4	3	2.25	14.6	1.29	8	55	2	110	42.4	2.59	50	19	40	0.48	250	114	
168	Office-2	9.4	4.5	3	2.25	13.9	1.35	8	55	2	110	42.3	2.60	50	19	41	0.47	250	117	
169	COEOffice	9.4	5.2	3	2.25	14.6	1.49	8	55	2	110	48.88	2.25	85	38	43	0.88	250	27	
170	DeputyCOE	4.1	3.3	2.5	1.75	7.4	1.04	8	22	3	66	13.53	4.88	138	28	36	0.79	250	28	
171	ConfidentialRoom-1	6.1	3.3	2.5	1.75	9.4	1.22	8	22	6	132	20.13	6.56	148	23	40	0.56	250	115	
172	ConfidentialRoom-2	9.4	9.4	3	2.25	18.8	2.09	4	55	5	275	88.36	3.11	64	21	46	0.45	250	152	
Polytechnic Block																				
173	ElectricMachineslab	42	6	3	2.25	48	2.33	8	55	8	440	252	1.75	29	17	47	0.35	250	569	
174	MechanicalWorkshop	42	12	3	2.25	54	4.15	4	110	32	1760	504	3.49	64	18	52	0.35	250	1140	
175	ComputerLab	12.2	9.2	2.5	1.75	21.4	3.00	4	110	9	990	112.24	8.82	46	5	50	0.10	250	887	
176	SMLab	12.2	9.2	3	2.25	21.4	2.33	4	55	4	220	112.24	1.96	29	15	47	0.31	250	151	
177	FMLab	13.9	12.2	3	2.25	26.1	2.89	4	55	5	275	169.58	1.62	29	18	49	0.36	250	175	
178	ThermalEngg.Lab	14.4	12.2	3	2.25	26.6	2.94	6	55	5	275	175.68	1.57	29	19	50	0.37	250	260	
Polytechnic Block (1stFloor)																				
179	StaffRoom	7.3	2.8	3	2.25	10.1	0.90	8	55	1	55	20.44	2.69	38	14	35	0.40	250	66	
180	Chemistrylab	9.3	9.2	3	2.25	18.5	2.06	4	55	2	110	85.56	1.29	38	30	46	0.64	250	39	
181	PhysicsLab	9.5	9.2	3	2.25	18.7	2.08	4	55	2	110	87.4	1.26	38	30	46	0.66	250	38	
182	ClassRoom	9.5	9.2	3	2.25	18.7	2.08	4	55	2	110	87.4	1.26	48	38	46	0.83	250	19	
183	ElectronicsDeviceLab	9.5	9.2	3	2.25	18.7	2.08	4	55	2	110	87.4	1.26	38	30	46	0.66	250	38	
184	OfficeRoom	9	5.9	3	2.25	14.9	1.58	8	55	3	165	53.1	3.11	148	48	43	1.11	250	-36	
185	Lab	9.2	9.1	3	2.25	18.3	2.03	4	55	2	110	83.72	1.31	65	49	46	1.08	250	-8	
186	ComputerCentre	13.2	9.1	3	2.25	22.3	2.39	4	55	10	550	120.12	4.58	62	14	47	0.29	250	392	
187	ClassRoom	18.8	9.1	3	2.25	27.9	2.73	4	55	2	110	171.08	0.64	48	75	49	1.52	250	-58	
188	StaffRoom	9.1	4.4	3	2.25	13.5	1.32	8	55	2	110	40.04	2.75	38	14	42	0.33	250	148	
189	ClassRooms1,2,3,4,5,7,8,9,10,11	9.2	9.1	3	2.25	18.3	2.03	6	55	2	110	83.72	1.31	48	37	46	0.79	250	34	306
Administration Block (1stfloor)																				
191	ChancellorRoom-1	6	3.4	3	2.25	9.4	0.96	4	55	2	110	20.4	5.39	56	10	36	0.29	250	78	
192	FrontRoom	10.6	3.1	2.5	1.75	13.7	1.37	8	36	4	144	32.86	4.38	85	19	42	0.46	250	155	
193	MainRoom	7.4	6.4	2.5	1.75	13.8	1.96	4	36	6	216	47.36	4.56	163	36	46	0.78	250	48	
																			35310	**15461**
																				50771

Annexure XXIV

PRIST DEEMED UNIVERSITY,Westcampus,Vallam

UPS Measurment Readings & Efficiency

S.No	Location	UPSDetails	Phase	Volts	Amps	KW	PF	KVAr	KVA
1	ECEDept. A-Block GroundFloor	30KVA/3Ph. Numeric/DC360V,	Input						
			R	224	16	2.07	0.59	2.85	3.65
			Y	224.5	20.1	2.72	0.6	3.61	4.54
			B	222	17.1	1.78	0.46	3.21	3.84
			Total		17.1	6.57	0.53	9.67	12.03
			Output	226	33	5.39	0.71	5.17	7.49
			Loss			1.18			4.54
			Efficiency			**82.04**			**62.26**
2	PGcomp.centerA-Block FirstFloor	30KVA/3Ph Numeric/DC310V	Input						
			R	227	14.1	1.65	0.52	2.81	3.29
			Y	227	16.2	1.96	0.51	3.1	3.67
			B	225	13.5	1.37	0.46	2.57	2.91
			Total		43.8	4.98	0.5	8.48	9.87
			Output	226.6	17.1	2.88	0.74	2.62	3.84
			Loss			2.1			6.03
			Efficiency			**57.83**			**38.91**
3	UGComputercenter. B-Block GroundFloor	30KVA/3Ph Numeric/DC310V	R	230.5	19.5	2.4	0.5	3.89	4.53
			Y	234.5	17	2.05	0.54	3.27	3.92
			B	232	16.6	2.43	0.59	3.53	4.6
			Total		53.1	6.88	0.54	10.7	13.05
			Output	227.4	23.5	4.22	0.79	3.28	5.35
			Loss			2.66			7.7
			Efficiency			**61.34**			**41**
4	ITLab. B-Block GroundFloor	15KVA/3Ph/Numeric /DC240V	Input						
			R	236	12.5	1.32	0.52	2.26	2.81
			Y	234	4.9	0.78	0.76	0.64	1.01
			B	233	3.2	0.59	0.7	0.52	0.74
			Total		20.6	2.69	0.66	3.42	4.56
			Output	230	5.4	0.88	0.68	0.93	1.26
			Loss			1.81			3.3
			Efficiency			**32.71**			**27.63**
	Serverroom.	2Nos.50KVA	Input						
			R	220	29.3	4.28	0.64	4.98	6.47
			Y	213.6	27	3.56	0.62	4.66	5.82
			B	215.4	23.3	3.53	0.62	4.09	5.03
			Total		79.6	11.37	0.63	13.7	17.32
			Output						
			R	229.4	19.4	3.1	0.71	3.17	4.4
			Y	229.4	6.9	1	0.63	1.19	1.59
			B	229.1	21.3	3.68	0.73	3.33	4.97
						7.78	0.69	7.69	10.96

5	New Admn.BlockFirst Floor	3Ph/NumericDigital/DC360V	Efficiency			**68.43**			**63.28**
			Input						
			R	220.7	20.1	2.67	0.59	3.56	4.45
			Y	224.5	20.1	2.72	0.6	3.61	4.54
			B	217.6	20.4	2.53	0.57	3.7	4.46
			Total		20.3	7.92	0.59	10.9	13.45
			Output						
			R	229.8	10.2	2.3	0.69	2.2	3.02
			Y	230.3	9.8	1.52	0.65	1.72	2.27
			B	228.9	17.6	2.99	0.72	2.82	4.09
						6.81	0.69	6.74	9.38
			Loss			1.11			4.07
			Efficiency			**85.98**			**69.74**
6	Dept.PRCET Block	5KVA/1Ph/Numeric /DC240V	Input	234.2	3.9	0.8	0.79	0.6	1.09
			Output	229	4.2	0.6	0.58	0.82	1.09
			Loss			0.2			0
			Efficiency			**75**			**100**
7	Health Centre	5KVA/1Ph/Numeric /DC240V	Input						
			Output	228	0	0.47	0.8	0.44	0.7
8	A-Block Ground Floor	15KVA/3Ph/Numeric /DC240V	Input						
			R	207	5	1	0.8	0.76	1.25
			Y	235.7	5.3	1.05	0.81	0.72	1.27
			B	228.2	5.5	1.05	0.81	0.74	1.29
			Total		15.8	3.1	0.81	2.22	3.81
			Output	227.1	13.7	2.17	0.7	2.26	3.18
			Loss			0.93			0.63
			Efficiency			**70**			**83.46**
9	L – Block computer Lab	60KVA / 3Ph/NumericDigital/ DC360V	Input						
			R	228	30.9	4.16	0.58	5.75	8.13
			Y	225.6	30.9	4.46	0.58	6.31	7.78
			B	227.4	32.2	4.09	0.58	5.58	7.34
			Total		94	12.71	0.58	17.6	23.25
			Output						
			R	228.2	23.1	3.84	0.71	3.71	5.33
			Y	229.2	21.3	3.35	0.71	3.33	4.71
			B	227.9	24	3.88	0.71	3.95	5.49
			Total			11.07			15.53
			Loss			1.64			7.72
			Efficiency			**87.1**			**66.8**

10	Polytechnic-I	15KVA/3Ph/Numeric	Input						
			R	230	5.8	1.48	0.89	0.79	1.67
			Y	223	7	1.44	0.87	0.73	1.6
			B	230	7	1.42	0.87	0.8	1.64
			Total			4.34			4.91
			Output	227	20.8	3.8	0.71	3.31	4.74
			Loss			0.54			0.17
			Efficiency			**87.56**			**96.54**
11	Polytechnic-II	30KVA/3Ph Numeric DC240V	Input						
			R	230	10.6	1.16	0.47	2.22	2.5
			Y	228.2	9.8	1.15	0.49	1.94	2.24
			B	231.3	10.9	1.32	0.52	2.31	2.7
			Total			3.63			7.44
			Output	229.3	15.8	2.9	0.73	2.7	3.98
			Loss			0.73			3.46
			Efficiency			**79.89**			**53.49**
12	Polytechnic-II		Input						
			R	232.9	2.9	0.2	0.3	0.63	0.741
			Y	230.1	2.5	0.172	0.29	0.55	0.572
			B	233.1	2.6	0.224	0.36	0.61	0.65
			Total			0.596	0.32	1.79	1.963
			NoloadLoss			**0.596**	0.32		**1.963**

AnnexureXXV

PRIST DEEMED UNIVERSITY,Westcampus,Vallam

UPS Details, Loads & Measurment Readings

Sl.N0.	UPSLocation	Installedparameters								Testingparameters								
		Capacity	TFT	CRT	Others	Total	PF	Connected	Loading	Input	Output	Loss	Efficy	Input	Output	Loss	Efficy	loading
		KVA	100	140	100	KW		KVA	%	KW	KW	KW	%	KVA	KVA	KVA	%	%
1	ECE Dept.A-Block GroundFloor	30	77	0	3	8	0.53	15.1	50	6.57	5.39	1.18	82	12.03	7.49	4.54	62	40
2	PGcomp.center,A-BlockFirstFloor	30	81	32	7	13.28	0.54	24.6	82	4.98	2.88	2.1	58	9.87	3.84	6.03	39	33
3	UG Computercenter.C-Block GroundFloor	30	1	119	5	17.26	0.5	34.5	115	6.88	4.22	2.66	61	13.05	5.35	7.7	41	44
4	ITLab.C-BlockGroundFloor	15	1	54	3	7.96	0.66	12.1	80	2.69	0.88	1.81	33	4.56	1.26	3.3	28	30
5	Serverroom.(NewAdmn.Block)FirstFloor -1	50	371	4	36	41.26	0.6	68.8	138	11.37	7.78	3.59	68	17.32	10.96	6.36	63	
6	Serverroom.(NewAdmn.Block)FirstFloor -2	50								7.92	6.81	1.11	86	13.45	9.38	4.07	70	27
6	PRCETBlock	5	0	19	4	3.06	0.79	3.9	77	0.8	0.6	0.2	75	1.09	1.09	0	100	22
7	HealthCentre	5	3	0	2	0.5			0		0.47				0.47			0
8	NewA-Block,GroundFloor	15	42	0	1	4.3	0.81	5.3	35	3.1	2.17	0.93	70	3.81	3.18	0.63	83	25
9	L-Block,computerLab	60	255	47	0	32.08	0.58	55.3	92	12.71	11.07	1.64	87	23.25	15.53	7.72	67	39
10	Polytechnic-I	15	2	50	2	7.4	0.88	8.4	56	4.34	3.8	0.54	88	4.91	4.74	0.17	97	33
11	Polytechnic-II	30	1	73	1	10.42	0.49	21.3	71	3.63	2.9	0.73	80	7.44	3.98	3.46	53	25
12	Polytechnic-II	30	Noload			0.596	0.32	1.9	6	0.596	0	0.596	0	1.963	0	1.963	0	7
		335	**834**	**398**	**64**	**146.12**		**251.1**	**75**	**65.586**	**48.97**	**17.086**	**72%**	**112.74**	**67.27**	**45.94**		

Annexure XXVI

PRIST DEEMED UNIVERSITY-VALLAM,THANJAVUR												
Room wiseLighting Consumtion details replacing 40WTLby36WTLlamps												
S.No.	Floors	Room sizeinMts.			Mtce height inMt	Type ofLamps	Oper. Hrs.	Watts per fitting	No. oflamps	Total Watts	Working days	Annual Consumption
		L	W	H								
FrontArea												
1	MVPanelRoom	13.1	6.8	3	2.25	TL1X36W	13	40	11	440	365	2088
2	MSBPanelRoom	5.4	6	3	2.5	TL1X36W	12	40	4	160	365	701
3	Civilroom-oldest.of	3	3.4	3	2.5	TL1X36W	8	40	1	40	200	64
4	Front Room	3.4	3	3	2.5	TL1X36W	8	40	1	40	250	80
5	Security Room(Office)	2.4	2.3	3	2.5	TL1X36W	12	40	1	40	365	175
6	SecurityRoom	2.4	2.3	3	2.5	TL1X36W	12	40	1	40	365	175
A-Block-GROUNDFLOOR												**3283**
7	MaterialRoom	9.3	7.5	3	2.25	TL1X36W	8	40	4	160	250	320
8	StoreStackRoom	4.9	4	3	2.25	TL1X36W	8	40	1	40	251	80
9	Staff room	7.5	4	3	2.25	TL1X36W	8	40	2	80	250	160
10	ClassRoomD2,D3,D4.	9.3	7.5	3	2.25	TL1X36W	4	40	12	480	250	480
11	EEE ComputerRoom	9.3	7.5	3	2.5	TL1X36W	6	40	4	160	250	240
12	TransducerLab	9.3	7.5	3	2.25	TL1X36W	3	40	4	160	250	120
13	Varanda(GF)					TL1X36W	12	40	5	200	250	600
						CFL65W	12	65	1	65	250	195
14	D-BlockToilet					1X2X18CFL	4	40	5	200	250	200
A-Block-FirstFLOOR												**2395**
15	ClassRoom5,6,7,8,9,11	9.3	7.5	3	2.25	TL1X36W	8	40	12	480	250	960
16	Staffroom(Gents)	4.8	3.6	3	2.25	TL1X36W	8	40	1	40	250	80
17	FacutyRoom	12.5	4	3	2.25	TL1X36W	8	40	3	120	250	240
	Varanda					TL1X36W	2	40	1	40	250	20
A-Block-SECONDFLOOR												**1300**
18	ClassRoom11,12,13,14	9.3	7.5	3	2.25	TL1X36W	8	40	8	320	250	640
						CFL2X18W	6	36	15	540	250	810
19	ConferenceRoom(DrawingRoom)	9.3	7.5	3	2.5	CFL 3X36W	4	108	4	432	200	346
20	GFToilet (Ladies)					TL1X36W	6	40	1	40	250	60

B-Block (GroundFloor)												**1856**
21	Electronicsystem Design lab	8.1	9.5	3	2.25	CFL 2X11W	8	22	9	198	250	396
22	Electronic Circuit Lab	8.1	9.6	3	2.25	CFL2X11W	8	22	9	198	250	396
23	NW &Digi.sig. Processing Lab	9.7	8.1	3	2.25	CFL2X11W	8	22	9	198	250	396
24	VLSI &Embedded Lab	8.1	9.6	3	2.25	CFL2X11W	4	22	9	198	250	198
25	H.O.D(E.C.E)	4.6	8.1	3	2.25	CFL2X11W	8	22	4	88	250	176
26	Microwave&FibreOpticsLab	9.3	8.1	3	2.25	CFL3X36W	4	108	5	540	250	540
27	Communication Lab	8.1	9.6	3	2.25	CFL2X11W	3	22	9	198	250	149
28	virtual communicationLab	9.5	8.1	3	2.25	CFL2X11W	8	22	8	176	250	352
29	PowerElectronicsLab	9.3	8.1	3	2.25	CFL2X18W	4	36	9	324	250	324
30	DirectorRoom	4.6	8.1	3	2.25	TL1X36W	6	40	4	160	250	240
31	Main Library	39	8.1	3	2.25	TL3X40W	8	165	16	2640	250	5280
32	Electronics Lab	7.2	8.1	3	2.25	TL1X36W	3	40	2	80	250	60
B-Block (FirstFloor)												**8507**
33	ClassroomsA5,A6,A7,A8,A9.	8.1	9.4	3	2.25	TL1X36W	8	40	20	800	250	1600
34	Staff Room	8.1	4.4	3	2.25	CFL 2X18W	6	36	6	216	250	324
35	Office Room	8.1	9.5	3	2.25	TL1X36W	4	40	4	160	250	160
36	office Room(Reception)	9.4	8.1	3	2.25	TL1X36W	8	40	6	240	250	480
37	Exam Cell	9.4	6.1	3	2.25	TL1X36W	8	40	4	160	250	320
38	PrincipalRoom					TL2X40W	8	80	2	160	250	320
						TL1X36W	8	40	1	40	250	80
39	P.G. ComputerLab	19.1	8.1	3	2.25	TL2X36W	7	102	12	1224	250	2142
40	CommunicationSkillsLab	14.3	8.1	3	2.25	TL1X36W	3	40	6	240	250	180
41	ConferenceRoom	31	8.1	3	2.25	TL2X40W	3	80	24	1920	250	1440
		31	8.1	3	2.25	CFL 3X36W	2	108	4	432	250	216
42	Staff Room	4.5	8.1	3	2.25	TL1X36W	8	40	1	40	250	80
43	Varanda					TL1X36W	2	40	10	400	250	200
B-Block (SecondFloor)												**7542**
44	ClassRoom1,2,3,4	8.1	9.4	3	2.25	TL1X36W	8	40	16	640	250	1280
45	DrawingRoom	14.7	9.5	3	2.5	TL1X36W	3	40	5	200	250	150
B-Block (ThirdFloor)												**1430**
46	Spare room	9.6	9.5	3	2.5	TL1X36W	8	40	3	120	250	240
47	Canteen	31	8.3	3	2.25	TL1X36W	4	40	8	320	250	320
	Canteen1stFloor	31	8.3	3	2.25	TL1X36W	2	40	4	160	250	80
48	Staffcanteen	6.2	3.3	3	2.25	TL1X36W	4	40	2	80	250	80
49	Ladies Canteen LeftSide	6.3	23	3	2.25	TL1X36W	4	40	5	200	250	200
50	Ladies Canteen RightSide	6.3	23	3	2.25	TL1X36W	4	40	4	160	250	160
51	Kitchen	3.4	9.2	3	2.25	CFL1X36W	8	40	4	160	250	320
52	StoreRoom	3.7	3.4	3	2.5	TL1X36W	4	40	1	40	250	40

C-Block (GroundFloor)												**1440**
53	Bio-ProcessLab	8	4.7	3.25	2.75	TL1X36W	4	40	2	80	250	80
		8	4.7	3.25	2.75	TL1X36W	8	40	2	80	250	160
54	B2-MolecularBiologylab	8	4.8	3.25	2.75	TL1X36W	1	80	2	160	250	40
		8	4.6	3.25	2.75	TL1X36W	8	40	2	80	250	160
55	Instr. AnalysisLab&chem. Engg. Lab	14.4	8	3	2.5	TL1X36W	3	40	6	240	250	180
56	Physics Lab	14.8	8	3	2.25	TL1X36W	1	40	6	240	250	60
57	CellBiology lab	9.8	8	3	2.5	TL1X36W	6	40	2	80	250	120
		9.8	8	3	2.25	TL1X36W	6	40	2	80	250	120
58	DEANRoom	4.5	8	3	2.25	CFL2X11W	6	22	2	44	250	66
		4.5	8	3	2.25	CFL2X18W	6	36	2	72	250	108
		4.5	8	3	2.5	CFL1X40W	6	40	1	40	250	60
59	MicroBiologyRoom	19.2	8	3	2.375	TL2X40W	10	80	5	400	250	1000
60	UGComputerLab(Centre-1)	14.75	8	3	2.5	TL2X40W	8	80	9	720	250	1440
		5.3	4.6	3	2.25	TL2X40W	8	80	2	160	250	320
		4.6	2.4	3	2.25	TL1X36W	4	40	1	40	250	40
61	UGComputerLab(Centre-2)	14.5	8	3	2.25	TL1X36W	8	40	8	320	250	640
	Varanda					TL1X36W	12	40	7	280	300	1008
62	Chemistrylab	19	8	3	2.25	TL2X 40W	8	80	8	640	250	1280
C-Block (FirstFloor)												**6882**
63	ClassroomB4,B5,B7,B8,B9,B10,	9.5	8	3	2.5	TL1X36W	2	40	48	1920	250	960
	B11,B12,B13,B14,B15,B16											**960**
64	staffRoomB6	9.5	8	3	2.5	TL1X36W	6	40	4	160	250	240
65	LadiesstaffRoom	8	4.7	3	2.25	TL1X36W	8	40	2	80	250	160
66	I.T Lab	14.5	8	3	2.25	TL2X 40W	5	80	9	720	250	900
		14.5	8	3	2.5	TL1X36W	5	40	1	40	250	50
C-Block (SecondFloor)												**1350**
67	ClassroomB17,B18,B19,B20,B21, B22,B23,B24,B25,B26.(=B4)	9.5	8	3	2.5	TL1X36W	2	40	40	1600	250	800
68	Staff Room	8	4.8	3	2.25	TL1X36W	2	40	2	80	250	40
69	DirectorRoom	8	4.8	3	2.25	TL1X36W	8	40	2	80	250	160
70	B-Block Examcell					TL1X36W	4	40	2	80	250	80
71	Staff Room	8	4.5	3	2.25	TL1X36W	8	40	2	80	250	160
72	Varanda					TL1X36W	4	40	6	240	250	240
						2X11CFL	4	22	2	44	250	44

EEE Department (Workshop)												**1524**
73	Staff Room	4.4	4.4	3	2.5	TL1X36W	5	40	1	40	250	50
74	StoreRoom	4.4	4.4	3	2.25	TL1X36W	8	40	1	40	250	80
75	Electric circuitsLab	4.4	8.8	3	2.25	TL1X36W	3	40	2	80	250	60
76	ElectricMachineslab	41	12.2	3	2.25	TL2X36W	4	80	9	720	250	720
M-Block(GroundFloor)												**910**
77	StrengthofmaterialsLab	30	11.2	3	2.25	TL1X36W	4	40	14	560	250	560
78	BusMechanicroom					TL1X36W	6	80	1	80	250	120
M-Block(1stFloor)												**680**
79	MetrologyMeasurementLab;Dynamics Lab;MechanicsLab; Thermal Lab	6.4	11.2	3	2.5	TL1X36W	6	40	4	160	250	240
												240
80	Classroom1,2,3,4.	6.4	11.2	3	2.5	TL1X36W	6	40	16	640	250	960
Newhostel(GroundFloor)												**960**
81	Portico					TL1X36W	12	40	2	80	250	240
82	Varanda					TL1X36W	12	40	16	640	250	1920
83	Hostel room	5	3.65	3	2.5	TL1X36W	5	40	96	3840	250	4800
Mess												**6960**
84	StoreRoom-1					TL1X36W	12	40	2	80	250	240
85	Kitchen					TL1X36W	8	40	3	120	250	240
86	Shed					TL1X36W	8	40	6	240	250	480
87	Side Room					TL1X36W	12	40	2	80	250	240
88	Dininghall					TL1X36W	4	40	14	560	250	560
89	StoreRoom-2					TL1X36W	2	40	2	80	250	40
	Varanda					TL1X36W	8	40	2	80	250	160
90	1stFloor,Workersroom					TL1X36W	5	40	2	80	250	100
oldHostel												**2060**
91	Hostel room	5	3.6	3	2.25	TL1X36W	5	40	2	80	250	100
	Toilet					TL1X36W	5	40	144	5760	250	7200
L-Block(GF)												**7300**
92	Class Rooms-9nos	9.1	7.6	3	2.25	TL1X36W	2	40	2	80	250	40
	Toilet-2nos					TL1X36W	3	40	4	160	250	120
	Varanda					TL1X36W	12	40	1	40	300	144
L-Block(1stFloor)												**304**
93	ComputerCentre-1	30	10.3	3	2.25	CFL2X11W	5	22	18	396	250	495
		30	10.3	3	2.25	TL1X36W	5	40	1	40	250	50
94	ComputerCentre-2	18.5	10.3	3	2.25	CFL2X11W	5	22	21	462	250	578

L-Block(2ndFloor)												**1123**
95	Electronics Lab	7.6	14.25	3	2.25	TL1X36W	2	40	3	120	250	60
96	Electronics(Digital) lab	7.6	14.25	3	2.25	TL1X36W	2	40	3	120	250	60
97	OpticalLab	7.6	14.25	3	2.25	TL1X36W	1	40	3	120	250	30
	Varanda					TL1X36W	3	40	3	120	250	90
98	Lab(Same asElectroniclab)	7.6	14.25	3	2.25	TL1X36W	2	40	3	120	250	60
	Gents toilet					TL1X36W	2	40	1	40	250	20
99	1st Floor, Library	12.3	25.33	3	2.25	CFL2X11W	2	22	39	858	250	429
100	Canteen					TL1X36W	2	40	1	40	250	20
101	PRCetStore					TL1X36W	5	40	6	240	250	300
PRCET Block(GF)												**1069**
102	Portico					TL1X36W	12	40	5	200	300	720
103	Chemistrylab	19.25	8.2	3	2.25	TL1X36W	6	40	7	280	250	420
	R&DDept-Varanda					TL1X36W	12	40	5	200	250	600
104	Room	14	8.2	3	2.25	TL1X36W	8	40	10	400	250	800
PRCET Block (1stfloor)												**2540**
	Varanda					TL1X36W	2	40	7	280	250	140
105	PrincipalRoom					CFL2X11W	8	22	8	176	250	352
106	LadiesstaffRoom	8	8.2	3	2.25	TL1X36W	8	40	5	200	250	400
107	LectureHall:E8	6.5	8.2	3	2.25	TL1X36W	4	40	2	80	250	80
108	LectureHall:E7	7.2	8.2	3	2.25	TL1X36W	4	40	2	80	250	80
109	Electric CircuitLab:(StaffRom)	10	8.2	3	2.25	TL1X36W	4	40	2	80	250	80
110	Physics Lab	12	8.2	3	2.25	TL1X36W	4	40	5	200	250	200
PRCET Block (2ndfloor)												**1332**
111	Lecturerhall:E12,E14	12	8.2	3	2.25	TL2X36W	2	80	4	320	250	160
112	Lecturerhall:E13	12	8.2	3	2.25	TL2X40W	2	80	2	160	250	80
113	Exam Cell					TL1X36W	8	40	2	80	250	160
114	GentsStaffroom					TL2X36W	2	80	2	160	250	80
115	Lecturerhall:E9,E10,E11.	12	8.2	3	2.25	TL2X40W	2	80	6	480	250	240
Health Centre												**720**
116	Estate OfficeHall	7.62	4.88	3	2.25	TL1X36W	2	40	3	120	250	60
117	Estate OfficeRoom	4.88	3.66	3	2.25	TL1X36W	8	40	3	120	300	288
118	CashCounterRoom	7.62	4.88	3	2.25	TL1X36W	8	40	2	80	300	192
HealthCentre:(1stfloor)												**540**
	Varanda					TL1X36W	4	40	2	80	250	80
119	GuestRoom-1	7.62	4.88	3	2.25	TL1X36W	4	40	4	160	200	128
120	GuestRoom-2	7.62	4.88	3	2.25	TL1X36W	4	40	1	40	200	32

HealthCentre:2ndfloor												**240**
121	Room					TL1X36W	4	40	2	80	250	80
												80
122	Reception	4.7	4.6	2.5	1.75	CFL2X11W	8	22	3	66	250	132
123	DeanRoom	4.7	4.6	3	2.25	TL1X36W	8	40	2	80	250	160
124	Admissionhall	14.2	10.2	2.5	1.75	CFL2X18W	4	36	24	864	250	864
125	DirectorRoom	4.1	2.5	2.5	1.75	CFL2X18W	8	36	1	36	250	72
126	FacutyRoom-2	4.1	9	2.5	1.75	CFL2X18W	6	36	6	216	250	324
127	FacutyRoom-1	2.4	4.1	2.5	1.75	CFL2X18W	6	36	1	36	250	54
	Toilet					TL1X36W	2	40	2	80	300	48
128	ComputerCentre-1	19	9.4	2.5	1.75	CFL2X11W	6	22	32	704	250	1056
129	Varanda					TL1X36W	12	40	5	200	365	876
						2X18W	12	40	5	200	365	876
130	InternetCentre	9.3	9.3	**2.5**	1.75	CFL2X11W	3	22	16	352	250	264
131	SmartClassRoom	10.6	8.4	2.5	1.75	CFL2X11W	5	22	12	264	250	330
132	ServerRoom	2.2	10.6	3	2.25	TL1X36W	8	40	2	80	250	160
133	ComputerCentre-2	9.3	9.3	2.5	1.75	CFL2X11W	6	22	16	352	250	528
134	Computercenter-3	19	9.4	2.5	1.75	CFL2X11W	13	22	32	704	250	2288
135	Entrance(SameAsReception)	4.7	4.6	2.5	1.75	CFL2X11W	8	22	1	22	250	44
136	SISCO Lab	7.2	14.5	2.5	1.75	CFL2X18W	6	36	13	468	250	702
137	ComputerHarrdwareRoom	7	14.5	2.5	1.75	CFL2X18W	5	36	11	396	250	495
Administrative Block-FirstFloor												**9273**
138	StoreRoom					TL1X36W	8	55	3	165	250	330
						TL1X36W	8	80	6	480	250	960
						CFL2X18W	8	36	6	216	250	432
139	Room					TL1X36W	8	40	1	40	250	80
140	Pro-Vice ChancellorRoom	4.7	4.4	2.5	1.75	CFL2X18W	8	36	4	144	250	288
141	Dr.M.GopalSirRoom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	3	108	250	216
142	Dean-Science&Humanities	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1	36	250	54
143	Director-AcademicAffairs	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1	36	250	54
144	Senior AdvisorRoom1	4.7	4.4	3	2.25	TL1X36W	8	40	1	40	250	80
145	Senior AdvisorRoom2	4.4	4.6	2.5	1.75	CFL2X18W	8	36	4	144	250	288
146	Visitorroom	9.4	3.2	3	2.5	TL1X36W	8	40	2	80	250	160
147	Pro-Chancellor Room	5.8	6.1	2.5	1.75	CFL2X18W	6	36	5	180	250	270
148	Office Room-Front	4.4	3.6	3	2.5	TL1X36W	8	4	1	4	250	8
149	Office Room	7.3	9.1	2.5	1.75	CFL2X18W	8	36	7	252	250	504
150	ServiceRoom	5.6	3.2	2.5	1.75	CFL1X18W	12	18	1	18	250	54
151	Varanda	5.6	3.2	3	2.25	TL1X36W	12	40	1	40	250	120
152	Vice-Chancellor (Visitors Room)	4.8	3.4	2.5	1.75	CFL2X18W	8	36	2	72	250	144
153	Main Room	9.4	5.9	2.5	1.75	CFL2X18W	8	36	7	252	250	504

154	RecordsRoom	3.1	4.5	2.5	1.75	CFL2X18W	6	36	2	72	200	86
155	Register Office-FrontRoom	4.4	4.7	3	2.5	TL1X36W	8	40	2	80	250	160
156	Otherroom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	2	72	250	144
157	RegistrarRoom	4.7	9.4	2.5	1.75	CFL2X18W	8	36	4	144	250	288
	Toilet					TL1X36W	6	40	1	40	250	60
158	Central-AdministrationOffice	4.7	4.6	3	2.25	TL1X36W	8	40	1	40	250	80
	Front Room	4.7	4.6	3	2.25	TL1X36W	2	40	1	40	250	20
159	Main Room	14	13.9	3	2.25	TL1X36W	8	40	13	520	250	1040
		14	13.9	3	2.25	TL 1X28	8	30	2	60	250	120
Administrative Block-SecondFloor												**6544**
160	Exam Cell Room	12.9	14.1	3	2.5	TL2X36W	8	80	8	640	250	1280
161	StudentsMaterialswarehouse	9.5	9.4	3	2.5	TL1X36W	8	40	2	80	250	160
		9.5	9.4	3	2.5	TL1X36W	8	40	2	80	250	160
162	Director-DistanceEducation	9.3	9.3	3	2.25	TL1X36W	8	40	4	160	250	320
163	Controller of Exam.(Frontroom)	6.4	2.5	2.5	1.75	CFL2X18W	8	36	2	72	250	144
164	Main Room	6.4	6	2.5	1.75	CFL2X18W	8	36	5	180	250	360
165	Addl.Con.of Exam.(FrontRoom)	4.7	4.6	3	2.25	TL1X36W	8	40	1	40	250	80
166	Room	6.1	4.6	2.5	1.75	CFL2X11W	8	22	4	88	250	176
167	Office-1	10.6	4	3	2.25	TL1X36W	8	40	2	80	250	160
168	Office-2	9.4	4.5	3	2.25	TL1X36W	8	40	2	80	250	160
169	COEOffice	9.4	5.2	3	2.25	TL1X36W	8	40	2	80	250	160
170	Deputy COE	4.1	3.3	2.5	1.75	CFL2X11W	8	22	3	66	250	132
171	ConfidentialRoom-1	6.1	3.3	2.5	1.75	CFL2X11W	8	22	6	132	250	264
172	ConfidentialRoom-2	9.4	9.4	3	2.25	TL1X36W	4	40	5	200	250	200
Polytechnic Block												**3756**
173	ElectricMachineslab	42	6	3	2.25	TL1X36W	8	40	8	320	250	640
174	MechanicalWorkshop	42	12	3	2.25	TL1X36W	4	80	14	1120	250	1120
						TL1X36W	4	40	4	160	250	160
175	ComputerLab	12.2	9.2	2.5	1.75	TL2X36W	4	80	9	720	250	720
176	SM Lab	12.2	9.2	3	2.25	TL1X36W	4	40	4	160	250	160
177	FM Lab	13.9	12.2	3	2.25	TL1X36W	4	40	5	200	250	200
178	Thermal Engg. Lab	14.4	12.2	3	2.25	TL1X36W	6	40	5	200	250	300

Polytechnic Block(1stFloor)												**3300**
179	Staff Room	7.3	2.8	3	2.25	TL1X36W	8	40	1	40	250	80
180	Chemistrylab	9.3	9.2	3	2.25	TL1X36W	4	40	2	80	250	80
181	Physics Lab	9.5	9.2	3	2.25	TL1X36W	4	40	2	80	250	80
182	Class Room	9.5	9.2	3	2.25	TL1X36W	4	40	2	80	250	80
183	ElectronicsDeviceLab	9.5	9.2	3	2.25	TL1X36W	4	40	2	80	250	80
184	Office Room	9	5.9	3	2.25	TL1X36W	8	40	3	120	250	240
185	Lab	9.2	9.1	3	2.25	TL1X36W	4	40	2	80	250	80
186	ComputerCentre	13.2	9.1	3	2.25	TL1X36W	4	40	10	400	250	400
187	Class Room	18.8	9.1	3	2.25	TL1X36W	4	40	2	80	250	80
188	Staff Room	9.1	4.4	3	2.25	TL1X36W	8	40	2	80	250	160
189	ClassRooms1,2,3,4,5,7,8,9,10,11	9.2	9.1	3	2.25	TL1 X 36W	6	40	20	800	250	1200
190	Class Room6									0		**2560**
Administration Block(1stfloor)												
191	Chancellor Room-1	6	3.4	3	2.25	TL1X36W	4	40	2	80	200	64
192	Front Room	10.6	3.1	2.5	1.75	CFL2X18W	8	36	4	144	250	288
193	Main Room	7.4	6.4	2.5	1.75	CFL2X18W	4	36	6	216	250	216
								1x36TL	**941**			**568**
Street Light								**2x36TL**	**94**			
194	Panel Room	St.light - 1				250WSVL	12	270	4	1080	365	4730
195		St.light - 2				250WSVL	12	270	7	1890	365	8278
196	Pillor Box	St.light - 3				250WSVL	12	270	15	4050	365	17739
								SVL	**26**	**70092**		**30748**
								CFL	**459**			**30748**
									WithDiversityFactor-1.5			**25623**

AnnexureXXVII

PRIST DEEMED UNIVERSITY-VALLAM,THANJAVUR												
Roomwise Lighting Consumtion details replacing 40WTL by 28WTL lamps												
S.No.	Floors	RoomsizeinMts.			Mtce height inMt	Type of Lamps	Oper. Hrs.	Watts per fitting	No. oflamps	Total Watts	Working days	AnnualConsumption
		L	W	H								
Front												
1	MVPanelRoom	13.1	6.8	3	2.25	TL1X28W	13	30	11	330	365	1566
2	MSBPanelRoom	5.4	6	3	2.5	TL1X36W	12	30	4	120	365	526
3	Civilroom-oldest.of	3	3.4	3	2.5	TL1X36W	8	30	1	30	200	48
4	FrontRoom	3.4	3	3	2.5	TL1X36W	8	30	1	30	250	60
5	SecurityRoom(Office)	2.4	2.3	3	2.5	TL1X36W	12	30	1	30	365	131
6	SecurityRoom	2.4	2.3	3	2.5	TL1X36W	12	30	1	30	365	131
A-Block-GROUNDFLOOR												**2462**
7	MaterialRoom	9.3	7.5	3	2.25	TL1X36W	8	30	4	120	250	240
8	StoreStackRoom	4.9	4	3	2.25	TL1X36W	8	30	1	30	251	60
9	Staffroom	7.5	4	3	2.25	TL1X36W	8	30	2	60	250	120
10	ClassRoomD2,D3,D4.	9.3	7.5	3	2.25	TL1X36W	4	30	12	360	250	360
11	EEEComputerRoom	9.3	7.5	3	2.5	TL1X36W	6	30	4	120	250	180
12	TransducerLab	9.3	7.5	3	2.25	TL1X36W	3	30	4	120	250	90
13	Varanda(GF)					TL1X36W	12	30	5	150	250	450
						CFL65W	12	65	1	65	250	195
14	D-BlockToilet					1X2X18CFL	4	30	5	150	250	150
A-Block - FirstFLOOR												**1845**
15	ClassRoom5,6,7,8,9,11	9.3	7.5	3	2.25	TL1X36W	8	30	12	360	250	720
16	Staffroom(Gents)	4.8	3.6	3	2.25	TL1X36W	8	30	1	30	250	60
17	FacutyRoom	12.5	4	3	2.25	TL1X36W	8	30	3	90	250	180
	Varanda					TL1X36W	2	30	1	30	250	15
A-Block-SECONDFLOOR												**975**
18	ClassRoom11,12,13,14	9.3	7.5	3	2.25	TL1X36W	8	30	8	240	250	480
						CFL2X18W	6	36	15	540	250	810
19	ConferenceRoom(DrawingRoom)	9.3	7.5	3	2.5	CFL3X36W	4	108	4	432	200	346
20	GFToilet(Ladies)					TL1X36W	6	30	1	30	250	45
B-Block (GroundFloor)												**1681**
21	ElectronicsystemDesignlab	8.1	9.5	3	2.25	CFL2X11W	8	22	9	198	250	396
22	ElectronicCircuitLab	8.1	9.6	3	2.25	CFL2X11W	8	22	9	198	250	396
23	NW&Digi.sig.ProcessingLab	9.7	8.1	3	2.25	CFL2X11W	8	22	9	198	250	396
24	VLSI&EmbeddedLab	8.1	9.6	3	2.25	CFL2X11W	4	22	9	198	250	198
25	H.O.D(E.C.E)	4.6	8.1	3	2.25	CFL2X11W	8	22	4	88	250	176
26	Microwave&FibreOpticsLab	9.3	8.1	3	2.25	CFL3X36W	4	108	5	540	250	540

27	CommunicationLab	8.1	9.6	3	2.25	CFL2X11W	3	22	9	198	250	149
28	virtualcommunicationLab	9.5	8.1	3	2.25	CFL2X11W	8	22	8	176	250	352
29	PowerElectronicsLab	9.3	8.1	3	2.25	CFL2X18W	4	36	9	324	250	324
30	DirectorRoom	4.6	8.1	3	2.25	TL1X36W	6	30	4	120	250	180
31	MainLibrary	39	8.1	3	2.25	TL3X40W	8	165	16	2640	250	5280
32	ElectronicsLab	7.2	8.1	3	2.25	TL1X36W	3	30	2	60	250	45
B-Block (FirstFloor)												**8432**
33	ClassroomsA5,A6,A7,A8,A9.	8.1	9.4	3	2.25	TL1X36W	8	30	20	600	250	1200
34	StaffRoom	8.1	4.4	3	2.25	CFL2X18W	6	36	6	216	250	324
35	OfficeRoom	8.1	9.5	3	2.25	TL1X36W	4	30	4	120	250	120
36	officeRoom(Reception)	9.4	8.1	3	2.25	TL1X36W	8	30	6	180	250	360
37	ExamCell	9.4	6.1	3	2.25	TL1X36W	8	30	4	120	250	240
38	PrincipalRoom					TL2X40W	8	60	2	120	250	240
						TL1X36W	8	30	1	30	250	60
39	P.G.ComputerLab	19.1	8.1	3	2.25	TL2X36W	7	102	12	1224	250	2142
40	CommunicationSkillsLab	14.3	8.1	3	2.25	TL1X36W	3	30	6	180	250	135
41	ConferenceRoom	31	8.1	3	2.25	TL2X40W	3	60	24	1440	250	1080
		31	8.1	3	2.25	CFL3X36W	2	108	4	432	250	216
42	StaffRoom	4.5	8.1	3	2.25	TL1X36W	8	30	1	30	250	60
43	Varanda					TL1X36W	2	30	10	300	250	150
B-Block (SecondFloor)												**6327**
44	ClassRoom1,2,3,4	8.1	9.4	3	2.25	TL1X36W	8	30	16	480	250	960
45	DrawingRoom	14.7	9.5	3	2.5	TL1X36W	3	30	5	150	250	113
B-Block (ThirdFloor)												**1073**
46	Spareroom	9.6	9.5	3	2.5	TL1X36W	8	30	3	90	250	180
47	Canteen	31	8.3	3	2.25	TL1X36W	4	30	8	240	250	240
	Canteen1stFloor	31	8.3	3	2.25	TL1X36W	2	30	4	120	250	60
48	Staffcanteen	6.2	3.3	3	2.25	TL1X36W	4	30	2	60	250	60
49	LadiesCanteenLeftSide	6.3	23	3	2.25	TL1X36W	4	30	5	150	250	150
50	LadiesCanteenRightSide	6.3	23	3	2.25	TL1X36W	4	30	4	120	250	120
51	Kitchen	3.4	9.2	3	2.25	CFL1X36W	8	30	4	120	250	240
52	StoreRoom	3.7	3.4	3	2.5	TL1X36W	4	30	1	30	250	30
C-Block (GroundFloor)												**1080**
53	Bio-ProcessLab	8	4.7	3.25	2.75	TL1X36W	4	30	2	60	250	60
		8	4.7	3.25	2.75	TL1X36W	8	30	2	60	250	120
54	B2-MolecularBiologylab	8	4.8	3.25	2.75	TL1X36W	1	60	2	120	250	30
		8	4.6	3.25	2.75	TL1X36W	8	30	2	60	250	120
55	Instr.AnalysisLab&chem.Engg.Lab	14.4	8	3	2.5	TL1X36W	3	30	6	180	250	135
56	PhysicsLab	14.8	8	3	2.25	TL1X36W	1	30	6	180	250	45
57	CellBiologylab	9.8	8	3	2.5	TL1X36W	6	30	2	60	250	90
		9.8	8	3	2.25	TL1X36W	6	30	2	60	250	90

58	DEANRoom	4.5	8	3	2.25	CFL2X11W	6	22	2	44	250	66
		4.5	8	3	2.25	CFL2X18W	6	36	2	72	250	108
		4.5	8	3	2.5	CFL1X40W	6	30	1	30	250	45
59	MicroBiologyRoom	19.2	8	3	2.375	TL2X40W	10	60	5	300	250	750
60	UGComputerLab(Centre-1)	14.75	8	3	2.5	TL2X40W	8	60	9	540	250	1080
		5.3	4.6	3	2.25	TL2X40W	8	60	2	120	250	240
		4.6	2.4	3	2.25	TL1X36W	4	30	1	30	250	30
61	UGComputerLab(Centre-2)	14.5	8	3	2.25	TL1X36W	8	30	8	240	250	480
	Varanda					TL1X36W	12	30	7	210	300	756
62	Chemistrylab	19	8	3	2.25	TL2X40W	8	60	8	480	250	960
C-Block (FirstFloor)												**5205**
63	ClassroomB4,B5,B7,B8,B9,B10,	9.5	8	3	2.5	TL1X36W	2	30	48	1440	250	720
	B11,B12,B13,B14,B15,B16							30				**720**
64	staffRoomB6	9.5	8	3	2.5	TL1X36W	6	30	4	120	250	180
65	LadiesstaffRoom	8	4.7	3	2.25	TL1X36W	8	30	2	60	250	120
66	I.TLab	14.5	8	3	2.25	TL2X40W	5	60	9	540	250	675
		14.5	8	3	2.5	TL1X36W	5	30	1	30	250	38
C-Block (SecondFloor)												**1013**
67	ClassroomB17,B18,B19,B20,B21, B22,B23,B24,B25,B26.(=B4)	9.5	8	3	2.5	TL1X36W	2	30	40	1200	250	600
68	StaffRoom	8	4.8	3	2.25	TL1X36W	2	30	2	60	250	30
69	DirectorRoom	8	4.8	3	2.25	TL1X36W	8	30	2	60	250	120
70	B-BlockExamcell					TL1X36W	4	30	2	60	250	60
71	StaffRoom	8	4.5	3	2.25	TL1X36W	8	30	2	60	250	120
72	Varanda					TL1X36W	4	30	6	180	250	180
						2X11CFL	4	22	2	44	250	44
EEEDepartment(Workshop)												**1154**
73	StaffRoom	4.4	4.4	3	2.5	TL1X36W	5	30	1	30	250	38
74	StoreRoom	4.4	4.4	3	2.25	TL1X36W	8	30	1	30	250	60
75	ElectriccircuitsLab	4.4	8.8	3	2.25	TL1X36W	3	30	2	60	250	45
76	ElectricMachineslab	41	12.2	3	2.25	TL2X36W	4	60	9	540	250	540
M-Block(GroundFloor)												**683**
77	StrengthofmaterialsLab	30	11.2	3	2.25	TL1X36W	4	30	14	420	250	420
78	BusMechanicroom					TL1X36W	6	60	1	60	250	90
M-Block(1stFloor)												**510**
79	MetrologyMeasurementLab;DynamicsLab;MechanicsLab; ThermalLab	6.4	11.2	3	2.5	TL1X36W	6	30	4	120	250	180

M-Block(2ndFloor)												**180**
80	Classroom1,2,3,4.	6.4	11.2	3	2.5	TL1X36W	6	30	16	480	250	720
Newhostel(GroundFloor)												**720**
81	Portico					TL1X36W	12	30	2	60	250	180
82	Varanda					TL1X36W	12	30	16	480	250	1440
83	Hostelroom	5	3.65	3	2.5	TL1X36W	5	30	96	2880	250	3600
Mess												**5220**
84	StoreRoom-1					TL1X36W	12	30	2	60	250	180
85	Kitchen					TL1X36W	8	30	3	90	250	180
86	Shed					TL1X36W	8	30	6	180	250	360
87	SideRoom					TL1X36W	12	30	2	60	250	180
88	Dining hall					TL1X36W	4	30	14	420	250	420
89	StoreRoom-2					TL1X36W	2	30	2	60	250	30
	Varanda					TL1X36W	8	30	2	60	250	120
90	1stFloor,Workersroom					TL1X36W	5	30	2	60	250	75
oldHostel												**1545**
91	Hostelroom	5	3.6	3	2.25	TL1X36W	5	30	2	60	250	75
	Toilet					TL1X36W	5	30	144	4320	250	5400
L-Block(GF)												**5475**
92	ClassRooms-9nos	9.1	7.6	3	2.25	TL1X36W	2	30	2	60	250	30
	Toilet-2nos					TL1X36W	3	30	4	120	250	90
	Varanda					TL1X36W	12	30	1	30	300	108
L-Block(1stFloor)												**228**
93	ComputerCentre-1	30	10.3	3	2.25	CFL2X11W	5	22	18	396	250	495
		30	10.3	3	2.25	TL1X36W	5	30	1	30	250	38
94	ComputerCentre-2	18.5	10.3	3	2.25	CFL2X11W	5	22	21	462	250	578
L-Block(2ndFloor)												**1110**
95	ElectronicsLab	7.6	14.25	3	2.25	TL1X36W	2	30	3	90	250	45
96	Electronics(Digital)lab	7.6	14.25	3	2.25	TL1X36W	2	30	3	90	250	45
97	OpticalLab	7.6	14.25	3	2.25	TL1X36W	1	30	3	90	250	23
	Varanda					TL1X36W	3	30	3	90	250	68
98	Lab(SameasElectroniclab)	7.6	14.25	3	2.25	TL1X36W	2	30	3	90	250	45
	Gentstoilet					TL1X36W	2	30	1	30	250	15
99	1stFloor,Library	12.3	25.33	3	2.25	CFL2X11W	2	22	39	858	250	429
100	Canteen					TL1X36W	2	30	1	30	250	15
101	PRCetStore					TL1X36W	5	30	6	180	250	225
PRCETBlock(GF)												**909**
102	Portico					TL1X36W	12	30	5	150	300	540
103	Chemistrylab	19.25	8.2	3	2.25	TL1X36W	6	30	7	210	250	315
	R&DDept-Varanda					TL1X36W	12	30	5	150	250	450
104	Room	14	8.2	3	2.25	TL1X36W	8	30	10	300	250	600
PRCETBlock(1stfloor)												**1905**

	Varanda					TL1X36W	2	30	7	210	250	105
105	PrincipalRoom					CFL2X11W	8	22	8	176	250	352
106	LadiesstaffRoom	8	8.2	3	2.25	TL1X36W	8	30	5	150	250	300
107	LectureHall:E8	6.5	8.2	3	2.25	TL1X36W	4	30	2	60	250	60
108	LectureHall:E7	7.2	8.2	3	2.25	TL1X36W	4	30	2	60	250	60
109	ElectricCircuitLab:(StaffRom)	10	8.2	3	2.25	TL1X36W	4	30	2	60	250	60
110	PhysicsLab	12	8.2	3	2.25	TL1X36W	4	30	5	150	250	150
PRCET Block(2ndfloor)												**1087**
111	Lecturerhall:E12,E14	12	8.2	3	2.25	TL2X36W	2	60	4	240	250	120
112	Lecturerhall:E13	12	8.2	3	2.25	TL2X40W	2	60	2	120	250	60
113	ExamCell					TL1X36W	8	30	2	60	250	120
114	GentsStaffroom					TL2X36W	2	60	2	120	250	60
115	Lecturerhall:E9,E10,E11.	12	8.2	3	2.25	TL2X40W	2	60	6	360	250	180
HealthCentre:(Block)												**540**
116	EstateOfficeHall	7.62	4.88	3	2.25	TL1X36W	2	30	3	90	250	45
117	EstateOfficeRoom	4.88	3.66	3	2.25	TL1X36W	8	30	3	90	300	216
118	CashCounterRoom	7.62	4.88	3	2.25	TL1X36W	8	30	2	60	300	144
Health Centre:(Block-1stfloor)												**405**
	Varanda					TL1X36W	4	30	2	60	250	60
119	GuestRoom-1	7.62	4.88	3	2.25	TL1X36W	4	30	4	120	200	96
120	GuestRoom-2	7.62	4.88	3	2.25	TL1X36W	4	30	1	30	200	24
Health Centre:(Block-2ndfloor)												**180**
121	Room					TL1X36W	4	30	2	60	250	60
Administrative Block-GroundFloor												**60**
122	Reception	4.7	4.6	2.5	1.75	CFL2X11W	8	22	3	66	250	132
123	DeanRoom	4.7	4.6	3	2.25	TL1X36W	8	30	2	60	250	120
124	Admissionhall	14.2	10.2	2.5	1.75	CFL2X18W	4	36	24	864	250	864
125	DirectorRoom	4.1	2.5	2.5	1.75	CFL2X18W	8	36	1	36	250	72
126	FacutyRoom-2	4.1	9	2.5	1.75	CFL2X18W	6	36	6	216	250	324
127	FacutyRoom-1	2.4	4.1	2.5	1.75	CFL2X18W	6	36	1	36	250	54
	Toilet					TL1X36W	2	30	2	60	300	36
128	ComputerCentre-1	19	9.4	2.5	1.75	CFL2X11W	6	22	32	704	250	1056
129	Varanda					TL1X36W	12	30	5	150	365	657
						2X18W	12	30	5	150	365	657
130	InternetCentre	9.3	9.3	**2.5**	1.75	CFL2X11W	3	22	16	352	250	264
131	SmartClassRoom	10.6	8.4	2.5	1.75	CFL2X11W	5	22	12	264	250	330
132	ServerRoom	2.2	10.6	3	2.25	TL1X36W	8	30	2	60	250	120
133	ComputerCentre-2	9.3	9.3	2.5	1.75	CFL2X11W	6	22	16	352	250	528
134	Computercenter-3	19	9.4	2.5	1.75	CFL2X11W	13	22	32	704	250	2288
135	Entrance(SameAsReception)	4.7	4.6	2.5	1.75	CFL2X11W	8	22	1	22	250	44
136	SISCOLab	7.2	14.5	2.5	1.75	CFL2X18W	6	36	13	468	250	702
137	ComputerHarrdwareRoom	7	14.5	2.5	1.75	CFL2X18W	5	36	11	396	250	495

AdministrativeBlock-FirstFloor												**8743**
138	StoreRoom					TL1X36W	8	30	3	90	250	180
						TL1X36W	8	60	6	360	250	720
						CFL2X18W	8	36	6	216	250	432
139	Room					TL1X36W	8	30	1	30	250	60
140	Pro-ViceChancellorRoom	4.7	4.4	2.5	1.75	CFL2X18W	8	36	4	144	250	288
141	Dr.M.GopalSirRoom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	3	108	250	216
142	Dean-Science&Humanities	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1	36	250	54
143	Director-AcademicAffairs	4.7	4.4	2.5	1.75	CFL2X18W	6	36	1	36	250	54
144	SeniorAdvisorRoom1	4.7	4.4	3	2.25	TL1X36W	8	30	1	30	250	60
145	SeniorAdvisorRoom2	4.4	4.6	2.5	1.75	CFL2X18W	8	36	4	144	250	288
146	Visitorroom	9.4	3.2	3	2.5	TL1X36W	8	30	2	60	250	120
147	Pro-ChancellorRoom	5.8	6.1	2.5	1.75	CFL2X18W	6	36	5	180	250	270
148	OfficeRoom-Front	4.4	3.6	3	2.5	TL1X36W	8	4	1	4	250	8
149	OfficeRoom	7.3	9.1	2.5	1.75	CFL2X18W	8	36	7	252	250	504
150	ServiceRoom	5.6	3.2	2.5	1.75	CFL1X18W	12	18	1	18	250	54
151	Varanda	5.6	3.2	3	2.25	TL1X36W	12	30	1	30	250	90
152	Vice-Chancellor(VisitorsRoom)	4.8	3.4	2.5	1.75	CFL2X18W	8	36	2	72	250	144
153	MainRoom	9.4	5.9	2.5	1.75	CFL2X18W	8	36	7	252	250	504
154	RecordsRoom	3.1	4.5	2.5	1.75	CFL2X18W	6	36	2	72	200	86
155	RegisterOffice-FrontRoom	4.4	4.7	3	2.5	TL1X36W	8	30	2	60	250	120
156	Otherroom	4.8	4.4	2.5	1.75	CFL2X18W	8	36	2	72	250	144
157	RegistrarRoom	4.7	9.4	2.5	1.75	CFL2X18W	8	36	4	144	250	288
	Toilet					TL1X36W	6	30	1	30	250	45
158	Central-AdministrationOffice	4.7	4.6	3	2.25	TL1X36W	8	30	1	30	250	60
	FrontRoom	4.7	4.6	3	2.25	TL1X36W	2	30	1	30	250	15
159	MainRoom	14	13.9	3	2.25	TL1X36W	8	30	13	390	250	780
		14	13.9	3	2.25	TL1X28	8	30	2	60	250	120
AdministrativeBlock-SecondFloor												**5704**
160	ExamCellRoom	12.9	14.1	3	2.5	TL2X36W	8	60	8	480	250	960
161	StudentsMaterialswarehouse	9.5	9.4	3	2.5	TL1X36W	8	30	2	60	250	120
		9.5	9.4	3	2.5	TL1X36W	8	30	2	60	250	120
162	Director-DistanceEducation	9.3	9.3	3	2.25	TL1X36W	8	30	4	120	250	240
163	ControllerofExam.(Frontroom)	6.4	2.5	2.5	1.75	CFL2X18W	8	36	2	72	250	144
164	MainRoom	6.4	6	2.5	1.75	CFL2X18W	8	36	5	180	250	360
165	Addl.Con.ofExam.(FrontRoom)	4.7	4.6	3	2.25	TL1X36W	8	30	1	30	250	60
166	Room	6.1	4.6	2.5	1.75	CFL2X11W	8	22	4	88	250	176
167	Office-1	10.6	4	3	2.25	TL1X36W	8	30	2	60	250	120
168	Office-2	9.4	4.5	3	2.25	TL1X36W	8	30	2	60	250	120
169	COEOffice	9.4	5.2	3	2.25	TL1X36W	8	30	2	60	250	120
170	DeputyCOE	4.1	3.3	2.5	1.75	CFL2X11W	8	22	3	66	250	132
171	ConfidentialRoom-1	6.1	3.3	2.5	1.75	CFL2X11W	8	22	6	132	250	264

172	ConfidentialRoom-2	9.4	9.4	3	2.25	TL1X36W	4	30	5	150	250	150
Polytechnic Block												**3086**
173	ElectricMachineslab	42	6	3	2.25	TL1X36W	8	30	8	240	250	480
174	MechanicalWorkshop	42	12	3	2.25	TL1X36W	4	60	14	840	250	840
						TL1X36W	4	30	4	120	250	120
175	ComputerLab	12.2	9.2	2.5	1.75	TL2X36W	4	80	9	720	250	720
176	SMLab	12.2	9.2	3	2.25	TL1X36W	4	30	4	120	250	120
177	FMLab	13.9	12.2	3	2.25	TL1X36W	4	30	5	150	250	150
178	ThermalEngg.Lab	14.4	12.2	3	2.25	TL1X36W	6	30	5	150	250	225
Polytechnic Block(1stFloor)												**2655**
179	StaffRoom	7.3	2.8	3	2.25	TL1X36W	8	30	1	30	250	60
180	Chemistrylab	9.3	9.2	3	2.25	TL1X36W	4	30	2	60	250	60
181	PhysicsLab	9.5	9.2	3	2.25	TL1X36W	4	30	2	60	250	60
182	ClassRoom	9.5	9.2	3	2.25	TL1X36W	4	30	2	60	250	60
183	ElectronicsDeviceLab	9.5	9.2	3	2.25	TL1X36W	4	30	2	60	250	60
184	OfficeRoom	9	5.9	3	2.25	TL1X36W	8	30	3	90	250	180
185	Lab	9.2	9.1	3	2.25	TL1X36W	4	30	2	60	250	60
186	ComputerCentre	13.2	9.1	3	2.25	TL1X36W	4	30	10	300	250	300
187	ClassRoom	18.8	9.1	3	2.25	TL1X36W	4	30	2	60	250	60
188	StaffRoom	9.1	4.4	3	2.25	TL1X36W	8	30	2	60	250	120
189	ClassRooms1,2,3,4,5,7,8,9,10,11	9.2	9.1	3	2.25	TL1X36W	6	30	20	600	250	900
190	ClassRoom6											**1920**
AdministrationBlock (1stfloor)												
191	ChancellorRoom-1	6	3.4	3	2.25	TL1X36W	4	30	2	60	200	48
192	FrontRoom	10.6	3.1	2.5	1.75	CFL2X18W	8	36	4	144	250	288
193	MainRoom	7.4	6.4	2.5	1.75	CFL2X18W	4	36	6	216	250	216
								1x28TL	**941**			**552**
StreetLight								**2x28TL**	**94**			
194	PanelRoom	St.light -1				250WSVL	12	270	4	1080	365	4730
195		St.light -2				250WSVL	12	270	7	1890	365	8278
196	PillorBox	St.light -3				250WSVL	12	270	15	4050	365	17739
								SVL	**26**	**58697**		**30748**
								CFL	**459**			**106282**
								Total	**1494**			**106282**
							Total	**1494**			**WithDiversityFactor-1.5**	**70854**
											EconomicWattageuse	**53290**
											NetWastage	**17564**

AnnexureXXVIII

PRIST DEEMED UNIVERSITY,Westcampus,Vallam				
Annual consumption comparision for 40W, 36W& 28WTLlamps				
Sl.no.	**Location**	**Existing**	**ProposedEfficient**	
		TL40W	**TL36W**	**TL28W**
1	Frontarea	4514	3283	2462
2	A- Block - GroundFloor	3145	2395	1845
3	A- Block - First Floor	1788	1300	975
4	A- Block -SecondFloor	2118	1856	1681
5	B-Block (GroundFloor)	8619	8507	8432
6	B-Block (FirstFloor)	9365	7542	6327
7	B-Block (Second Floor)	1966	1430	1073
8	B-Block (Third Floor)	1828	1440	1080
9	C-Block (Ground Floor)	9375	6882	5205
10	C-Block (FirstFloor)	2079	1524	1154
11	EEE Department(Workshop)	1251	910	683
12	M-Block(GroundFloor)	853	680	510
13	M-Block(1st Floor)	330	240	180
14	M-Block(2ndFloor)	1320	960	720
15	New hostel(GroundFloor)	9570	6960	5220
16	Mess	2833	2060	1545
17	old Hostel	10038	7300	5475
18	L-Block(GF)	418	304	228
19	L-Block(1st Floor)	1141	1123	1110
20	L-Block(2nd Floor)	1309	1069	909
21	PRCETBlock(GF)	3493	2540	1905
22	PR CETBlock(1st floor)	1700	1332	1087
23	PR CETBlock(2ndfloor)	990	720	540
24	HealthCentre:(Block)	743	540	405
25	HealthCentre:(Block-1stfloor)	330	240	180
26	HealthCentre:(Block-2ndfloor)	110	80	60
27	Administrative Block-GroundFloor	9740	9273	8743
28	Administrative Block- FirstFloor	7681	6544	5854
29	Administrative Block-Second Floor	4761	3756	3086
30	PolytechnicBlock	4538	3300	2655
31	Polytechnic Block(1st Floor)	3520	2560	1920
32	Administration Block(1st floor)	592	568	552
	Subtotal	**115234**	**89218**	**73801**
33	StreetLight	30748	30748	30748
		145982	**119966**	**104549**
	WithDiversityFactor-1.5	**97321**	**79977**	**69699**
	EconomicWattageuse	**64639**	**64639**	**64639**
	NetWastage	**32682**	**15338**	**5060**

AnnexureXXIX

PRIST DEEMED UNIVERSITY,Westcampus,Vallam										
Annual consumption comparision for Sodiumlamps using Electronic chokes with dimmer										
Consumption with conventional chokes for Sodium vapour lamps										
StreetLight										
Sl.no	**Location**			**Type**	**Oper.hrs**	**Wattage**	**Qty**	**Totalwatts**	**Working days**	**Annual consm**
1	PanelRoom	St.light-1		250WSVL	12	290	4	1160	365	5081
2		St.light-2		250WSVL	12	290	7	2030	365	8891
3	PillorBox	St.light-3		250WSVL	12	290	15	4350	365	19053
								7540		33025
Consumption with Electronic chokeswith Dimmer for Sodiumvapour lamps										
StreetLight										
1	PanelRoom	St.light-1		250WSVL	12	232	4	928	365	4065
2		St.light-2		250WSVL	12	232	7	1624	365	7113
3	PillorBox	St.light-3		250WSVL	12	232	15	3480	365	15242
								6032		**26420**
									Annualsavings	**6605**

AnnexureXXX

PRIST DEEMED UNIVERSITY, Westcampus, Vallam			
Monthwise EB consumption & Bill			
Sl.No.	**Month**	**KWhrs**	**Net Amount**
1	Mar-21	15821.6	207,435.00
2	Apr-21	20600.8	241,156.00
3	May-21	23186	258,406.00
4	Jun-21	23995.2	264,168.00
5	Jul-21	25413.2	209,139.00
6	Aug-21	21097.2	242,292.00
7	Sep-21	16244.4	328,514.00
8	Oct-21	23678.8	351,797.00
9	Nov-21	26281.6	370,631.00
10	Dec-21	25837.6	368,888.00
11	Jan-22	22231.6	347,950.00
12	Feb-22	23601.6	354,986.00
		267989.6	**3,545,362.00**

STRATEGIC SUSTAINABILITY CONSULTING

SSC Green Auditor Certification

is hereby granted to

DR. ASHUTOSH DAS

Awarded: October 26, 2015

Jennifer K. Woofter, SSC President