

ENERGY & SAFETY AUDIT REPORT

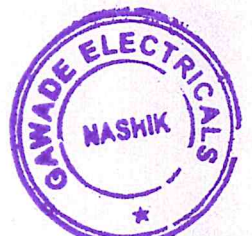
JUNE – 2021

Dr.D.Y. Patil College of Nursing and Physiotherapy, Kolhapur.



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Passage and Toilet:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	20 W	15	300	Passage
Tube light	20 W	1	20	Ladies
Exhaust Fan	35 W	1	35	Toilet
Tube light	55 W	1	55	Gents
Total			410 W	

Computer Room:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	1	55	
Ceiling fan	80 W	3	240	
Tube light	20 W	1	20	
CPU + Display	175 W	25	4375	
Printer	600 W	1	600	
Laptop	100 W	1	100	
3 KVA inverter	356 W	1	356	
5 KVA inverter	594 W	1	594	
Total			6340 W	

Class rooms:

Class room No.	Tube light (55 W)	Tube light (20 W)	Fan (80W)	Total (W)
1	4	-	2	380
2	5	1	2	400
3	3		2	380
4	4		2	380
6	4		2	380
Total				1920 W

Principal Cabin:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	2	110	
Tube light	20 W	2	40	
Fan	80 W	1	80	
CPU + Display	175 W	3	525	
Printer	700 W	2	140	
Pedestal fan	50 W	1	50	
Total			945 W	



Kinerotherepy Lab:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	10	550	
Ceiling fan	80 W	4	320	
Motorized Bed	375 W	1	375	
Total			1245 W	

Xerox Room:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	1	55	
Ceiling fan	80 W	1	80	
Photo copier	1200 W	1	1200	
Total			1335 W	

Principal (Jr. College) cabin

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	20 W	4	80	
Fan	80 W	1	80	
CPU + Display	175 W	1	175	
Printer	700 W	1	700	
Total			1035 W	

Office :

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	7	385	
Fan	80 W	4	320	
CPU + Display	175 W	1	175	
Printer	600 W	1	600	
Total			1035 W	



Chemistry Lab:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	6	330	
Fan	80 W	5	400	
CPU + Display	175 W	1	175	
Exhaust fan	100 W	2	200	
Total			1105 W	

Biology Lab:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	4	220	
Fan	80 W	3	240	
CPU + Display	175 W	1	175	
Total			635 W	

Physics Lab:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	7	385	
Fan	80 W	2	160	
CPU + Display	175 W	1	175	
Total			720 W	

Electronics Lab:

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	6	330	
Fan	80 W	3	240	
CPU + Display	175 W	2	350	
Total			920 W	



Auditorium :

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	55 W	4	220	
Fan	80 W	2	160	
Total			380 W	

Second Floor

Passage Lighting and Bathrooms

Electrical Load	Wattage	Numbers	Total (Watts)	Remark
Tube light	20 W	11	220	Passage
Tube light	45 W	4	180	
Tube light	55 W	9	495	
CFL Fitting	18 W	3	54	
Water cooler	100 W	1	100	
Tube light	20 W	2	40	Gents
Geyser	2000 W	1	2000	Bathroom
Incandescent bulb	60 W	1	60	Gents Toilet
Incandescent bulb	60 W	1	60	Ladies Toilet
Total			3209 W	

Room No1:

Electrical Load	Wattage	Numbers	Total (Watts)	Additional Load
Tube light	20 W	1	20	
Tube light	55 W	5	275	
Fan	80 W	6	480	
Fridge	100 W	1	100	
Pedestal fan	50 W	1	50	
Total			925 W	

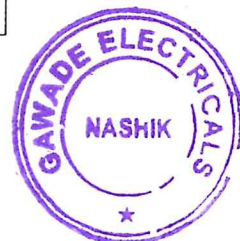


Classrooms:

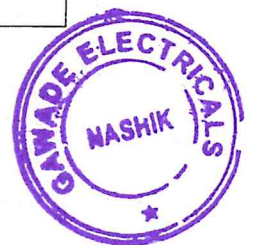
Room No.	Tube light (55 W)	Tube light (20 W)	Fan (80 W)	Total (W)	Additional load
2	4		4	540	
3		3	4	380	
4	2		2	970	Projector
5	2		3	350	
6	2	1	3	390	(10 W x2) bulb
7	1		4	375	
Total				3005 W	

Nursing College Main Office:

Electrical Load	Wattage	Numbers	Total (Watts)	Additional Load
Lobby:				
Tube light	20 W	2	40	
UV Box	50 W	1	50	
Fan	80 W	2	160	
Left side room				
Fan	80 W	2	160	
Tube light	20 W	3	60	
Principal Cabin				
Tube light	55 W	3	165	
Fan	80 W	2	160	
CPU + Display	175 W	1	175	
Printer	600 W	1	600	
Fridge	75 W	1	75	
TV set	80 W	1	80	
Incandescent Bulb	60 W	1	60	Bathroom
Side Room				
Tube light	20 W	1	20	
Fan	80 W	1	80	
CPU + Display	175 W	1	175	
Printer	600 W	1	600	
Printer	700 W	1	700	
Office Room				
Tube light	20 W	1	20	
Fan	80 W	1	80	
CPU + Display	175 W	1	175	
CPU	100 W	1	100	
Printer	600 W	1	600	



LED bulb	10 W	1	10	
Office Room				
Tube light	20 W	1	20	
Fan	80 W	1	80	
CPU + Display	175 W	2	350	
Vice Principal Cabin				
Tube light	55 W	1	55	
Fan	80 W	1	80	
CPU + Display	175 W	1	175	
CPU	100 W	1	100	
Printer	600 W	1	600	
bulb	60 W	1	60	Bathroom
Office Room				
Tube light	55 W	1	55	
Fan	80 W	1	80	
CPU + Display	175 W	1	175	
Office Room				
Tube light	45 W	1	45	
Fan	80 W	1	80	
CPU + Display	175 W	1	175	
Staff Room				
Tube light	55 W	3	165	
Fan	80 W	4	320	
Router	6 W	6	36	
Class Room				
Tube light	55 W	13	715	
Fan	80 W	12	960	
Public address system	100 W	1	100	
projector	700 W	1	700	
Ladies Toilet				
Tube light	20 W	5	100	
Advance Lab				
Tube light	55W	1	55	
Fan	80 W	4	320	
Paper Projector	200 W	3	600	
CPU + Display	175 W	2	350	
Library				
Tube light	55W	12	660	
Fan	80 W	12	960	
CPU + Display	175 W	2	350	
Printer	600 W	1	600	
Pedestal fan	50 W	2	100	



Electro therapy Hall				
Tube light	55W	8	440	
Fan	80 W	8	640	
Infrared lamp	200 W	1	200	
UV Lamp	220 W	1	220	
Auto track traction	500 W	1	500	
Solid state Diathermy	200 W	1	200	
Vectrodyne	50 W	1	50	
Microstim Genius	46 W	1	46	
Diagnostic Stimulator	18 W	1	18	
Thermopatic Ultrasound	46 W	1	46	
Store Room				
Tube light	45W	2	90	
Fan	80 W	4	320	
Street Light				
LED Halogen	200 W	1	200	
Tube light	20 W	1	20	
Tube light	45 W	1	45	
LED Halogen	400 w	1	400	
			17001	

Total Electrical load of Nursing College = 42165 W

OR

42.165KW

Sanjay P. Gawade

Proprietor
(Sanjay P. Gawade)



Gawade Electricals

Sanjay P. Gawade

Certified Energy Auditor

(EA-4875) Mobile No. 9890837038

Date: 20 / 06 /2021

Safety Audit of D. Y. Patil Nursing College Building.

Branch Code and Name	D. Y. Patil College of Nursing
Address	507, E Ward, Kadamwadi, Kolhapur
Sanctioned Load	930 KW
Connected Load	930 KW
Monthly amount of energy bill	Rs. 1422795
Total Tonnage of air conditioners in branch	5 Ton
Area of the Branch	6000 Square feet (Approximate)

Sr. No	Description	Details	Remark
1)	Whether MCCBs/MCBs/ELCBs are provided With proper ratings to cover the load ?	Yes	
2)	Whether light and emergency light are provided in electrical rooms, operating areas for easy operation and maintenance work?	No	Panel room is the dirtiest Room. Nobody can reach up to the panel through the dumped material. No single light is present. Everywhere spider net has been spread. It seems nobody went there for months. See photo.
3)	Whether Pump room, DG set room, UPS room, electrical room etc. are maintained dry and in good Condition and obsolete / Hazardous / old items are not dumped there ?	NA	Emergency supply is taken from hospital.
4)	Whether water seepage is observed near any of the	No	

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	Electrical panel, distribution boards, electrical equipments etc. ?		
5)	Whether Earthing pits are provided and connected to the equipment body of the connected equipment?	No	Separate earthing pits shall be provided for this campus.
6)	Whether earthing pits are properly maintained ?		To improve the quality of earthing pour a bucketful water +10 kg salt regularly once in a month time in earth pit.
7)	Whether proper exhaust fans for proper ventilation of panel room /electrical room/UPS room is provided and paper, old material /any other scrap kept near DB/Panels/UPS Batteries etc are not kept there.	No	UPS is kept in computer lab, batteries are kept on open stand.
8)	Whether penalty is being imposed in electricity bills on Account of higher load / poor power factor etc. (check	No	
	Electricity bills of April, May, June, July month) Additional electrical load required if any from power Distribution company)		
9)	Whether the load is distributed in all three phases equally ? to avoid unbalancing of phases and no loose connections / Hazardous wirings observed in the branch/ office premises	Yes	Cannot reach up to panel for current measurement due to dirty atmosphere. (see photograph)
10)	Whether isolating switches are provided for switching Off then on essential loads premises during night and main switch to switch off the power supply to the branch in	Yes	

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	case of emergency ?		
11)	Whether electrical equipments of pantry etc. are properly connected to Iron Socket box with MCBs. MCBs or latest type of switches are provided to switch On / off the ACs and protect them from overload.	NA	No pantry
12)	Whether proper preventive maintenance after opening of panel boards and the distribution boards are carried out by license holder electrician or skilled technicians of equipment manufacturers / service providers ?	Yes/No	
13)	Whether appropriate timers used in the change-over of air conditioners for server room A/Cs and for signage boards to make auto on /off. The thermostat of A/C at server room should be set to say 30 ⁰ C, so they are not run only when temperature is too high (To minimize the chances of fire due to idle running of the ACs during night)	NA	No server room
14)	Whether preventive maintenance of electric installation and equipment is carried out by skilled licensed holder electricians / skilled technicians.	Yes	
15)	General conditions of electrical panels, main switch, electric motor board and change over switch, A/Cs, water cooler, water filter, wiring cables etc. is good and all DBs, panels, switch boards are properly covered	Yes	All air conditioners shall provide a MCB based switch socket.
16)	Whether the contact numbers of	NO	

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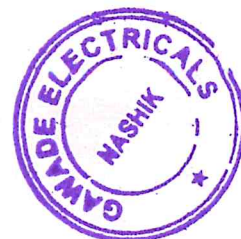
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	persons, electricians, power distribution company, Generator service provider, vendor, UPS Vendor, A/C service provider are available with Accountant / Security guard and other staff and they are displayed in Electric room / UPS room ?		
17)	Whether the power factor correcting panel of appropriate rating is installed? (APFC Panel)	No	
18)	Fire Prevention Measures.		
i)	All old disposable records, broken furniture etc. accumulated at the premises have been cleared?	Yes	
ii)	Combustible leaf, litter / waste papers etc. in and around the branch is covered / cleaned periodically	Yes	
iii)	No stationary / Records / old obsolete items are stored / kept in the system / UPS room.		Old obsolete material is dumped in panel room.
iv)	Storage racks in stationary / record room kept at a safe distance of at least 3 ft. from electrical points / switch / junction box?		
v)	In the pantry / canteen LPG gas is used?		No pantry
19)	Server and UPS room.		
i)	Server room have dual AC Units having timer circuit device with independent circuit	NA	
ii)	Whether exhaust fan installed in UPS room?	NO	
20)	Electrical safety		
i)	Power supply to record / stationary	YES	

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	room is made through Plug and Socket arrangement?		
21)	Fire protection and Fire Control Extinguishers and Fire Alarm System		
	Are fire extinguishers available in the following work area and clearly marked and accessible? A) System and UPS room (CO2-3/4 Kg x 2No) B) Accounts Hall: Water CO2 type C) Stationary Room: Water CO2 type	A) No B) No C) No	Fire extinguishers are placed only in corridors.
22)	DG Set / Generator		
	At least two 6 Kg ABC capacity fire extinguishers are placed near the DG set	NA	Not Applicable.

For Gawade Electricals



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