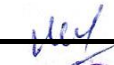


7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment

HEI Input : Any Four of the above

7.1.2 Facilities for alternative sources of energy and energy conservation measures devices (data for the preceding academic year) (5)									
		Biogas plant		Energy Wheeled to the grid		Sensor-based energy conservation		Use of LED bulbs / power-efficient equipment	
Solar energy									
Yes		No		Yes		Yes		Yes	


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1. Solar energy

Solar Panel Bill

Tax Invoice						
AADI SHIV SHAKTI RENEWABLE ENERY PRIVATE LIMITED BHOOT NATH PATNA 800026 GSTIN/UIN: 10AAWCA8249G1ZG State Name : Bihar, Code : 10			Invoice No. 08 Delivery Note	e-Way Bill No. Reference No. & Date. Buyer's Order No. Dispatch Doc No. Dispatched through Terms of Delivery	Dated 24-Mar-23 Mode/Terms of Payment Other References Dated Delivery Note Date Destination	
Consignee (Ship to) DEO MANGAL MEMORIAL TRUST State Name : Bihar, Code : 10 Buyer (Bill to) DEO MANGAL MEMORIAL TRUST Old GT Road, Vill + PO - Jamuhar Dist- Rohtas, Bihar - 821305 MOB. +91-9971708514 State Name : Bihar, Code : 10						
Sl No.	Description of Goods	HSN/SAC	Quantity	Rate	per	Amount
	SOLAR POWER GENERATION SYSTEM PART BILL OF 1100 KWP	854140	1 Set	3,29,40,000.00	Set	3,29,40,000.00
	CGST					19,76,400.00
	SGST					19,76,400.00
Total			1 Set			₹ 3,68,92,800.00
Amount Chargeable (in words) INR Three Crore Sixty Eight Lakh Ninety Two Thousand Eight Hundred Only						
HSN/SAC		Taxable Value	Central Tax		State Tax	
			Rate	Amount	Rate	Amount
854140		3,29,40,000.00	6%	19,76,400.00	6%	19,76,400.00
Total		3,29,40,000.00		19,76,400.00		39,52,800.00
Tax Amount (in words) : INR Thirty Nine Lakh Fifty Two Thousand Eight Hundred Only						
Declaration for AADI SHIV SHAKTI RENEWABLE ENERY PRIVATE LIMITED						



3. Wheeling to the Grid

7.1.2

(3) Wheeling to the Grid



Energy generation report

NMCH_1100			
JAMUHR GASARANI			
Plant DC Capacity: 1100.00 KW Installed On: 22/07/2023			
Report For Plant (Gen) Report Type: (Day Reports_01/04/2025 To 30/04/2025)			
No	Date	Day Gen (KWh)	Total Gen (KWh)
32	09/04/2025	173.95	175.55
33	10/04/2025	1162.92	1341.58
34	11/04/2025	4691.90	6033.48
35	12/04/2025	4263.95	10297.43
36	13/04/2025	2315.03	12612.46
37	14/04/2025	3034.40	15646.86
38	15/04/2025	4840.07	20486.93
39	16/04/2025	2830.58	23317.51
40	17/04/2025	4703.83	28021.34
41	18/04/2025	4161.11	32162.45
42	19/04/2025	4651.83	36834.28
43	20/04/2025	3002.69	40436.96
44	21/04/2025	4487.12	44924.10
45	22/04/2025	4549.14	49473.24
46	23/04/2025	4520.31	53993.55
47	24/04/2025	5019.34	59012.89
48	25/04/2025	5068.54	64061.43
49	26/04/2025	4466.93	68546.36
50	27/04/2025	3173.38	71720.74
51	28/04/2025	3674.52	75395.26
52	29/04/2025	4145.76	79541.04
53	30/04/2025	4536.82	84077.86
Grand Total		84073.15	

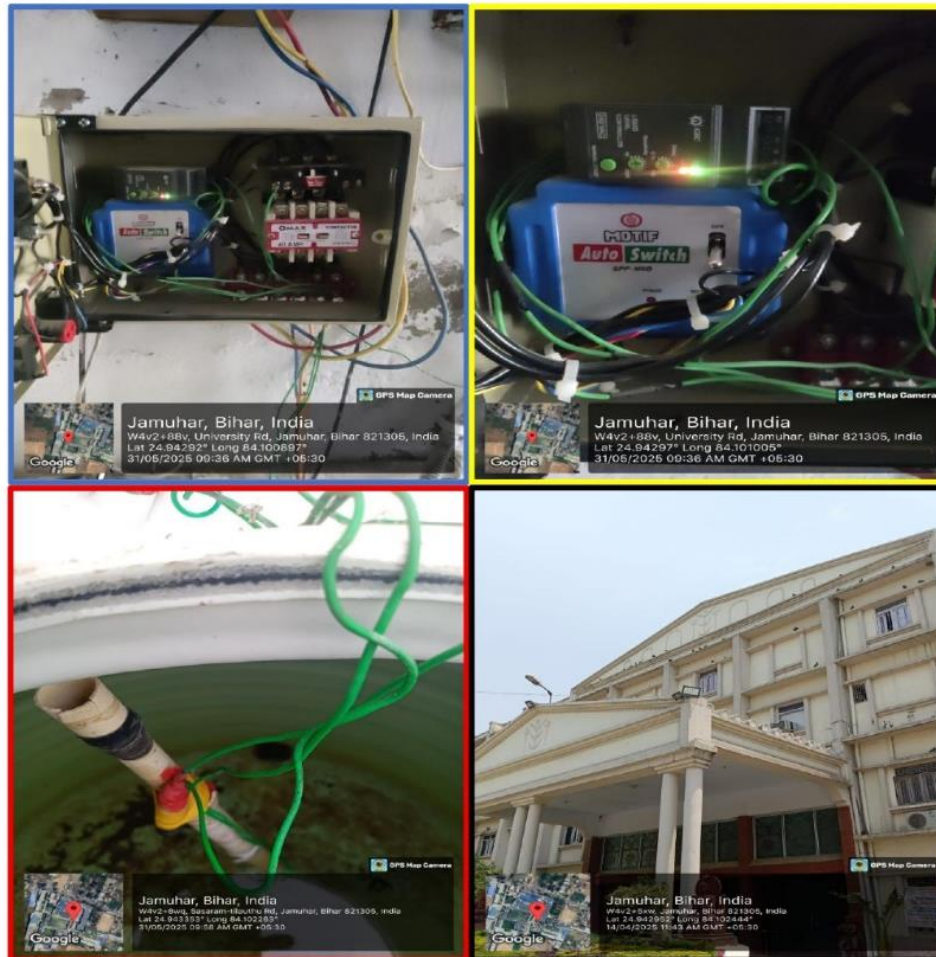
Me
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गोपाल नारायण सिंह विश्वविद्यालय

4. Sensor-based energy conservation

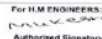
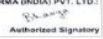
7.1.2

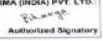
(4) Sensor-based energy conservation

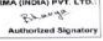
MOTIF Auto Switch for Water Level Controller to conserve energy and water



Sensor-based energy controller Bill

amazon.in		Tax Invoice/Bill of Supply/Cash Memo (Original for Recipient)																																																							
Sold By : H.M ENGINEERS Shop No. 5, FIRST FLOOR, Gali Number 5, Faridabad, FARIDABAD, HR, 121004 IN		Billing Address : Deo Mangal Memorial Trust Drota Prakash Srivastava Narayan Medical College & Hospital, Jamuhar, SASARAM, BIHAR, 821115 IN State/UT Code:10																																																							
PAN No: AAACF1959Q GST Registration No:05AAACF1975AA120 Dynamic QR Code: 		Shipping Address : Deo Mangal Memorial Trust Drota Prakash Srivastava Narayan Medical College & Hospital, Jamuhar, SASARAM, BIHAR, 821115 IN State/UT Code:10 Place of supply:BIHAR Place of delivery:BIHAR																																																							
Order Number: 008-0492447-400606 Order Date:09/09/2022		Invoice Number : IN-70 Invoice Details : IIN-221056453-2304 Invoice Date :20/09/2023																																																							
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5. Use of LED bulbs/ power efficient equipment

Energy consumption and bill

SOUTH BIHAR POWER DISTRIBUTION COMPANY LTD
ENERGY BILL

Bill Number: 10184826487
Circle Name: Sasaram

Bill for the Month: MAR-2025
Division Name: Dehri

Date of Billing: 04.04.2025
Due Date of Payment: 19.04.2025
Sub Division Name: Dehri-II / CBBB
Bill Code: CBBB/AD/2/HTS/3010184826487

CA No.: 100720357
Old A/c No.: DEH/HT-49N/HT
Name & Address: M/S DEO MANGAL MEMORIAL TRUST
JAMHAR, KARWANDIYA, DEHRI, PATNA DEHRI-II 823105
Tariff Category: HTS-I

Contract Demand: 1300.00 KVA
Date of connection: 30.01.2013
Feeder Name:
Feeder Type:
SSR Name:
Supply Voltage (KV): 11 KV
Security Deposit Held: 0.00
Security Deposit Required: 0.00
Power On (Hours):

Meter No. & Make: BHR31499/SECURE METERS
Meter Change Date:
Meter Arrangement: HT Side
Meter Ratio: 55 : 11000/110
Metering Unit Provided By: COMPANY
Trans. Capacity:
Trans. Owner: Consumer
Dedicated Feeder Y/N: N

FOR METER DETAILS PLEASE REFER ANNEXURE PAGE

Load Factor	0.00000000	Meter Status	Bill Status: Actual	Minimum Demand @ 75% of Contract Demand = 975.000
Details of General Installments				
Cur. Mon Amt	0.00	Total Arrear		
Particulars		Amount (Rs.)		
1. Payment on Account		-0.44		
2. Rebate on Online payment		0.00		
3. Arrears Energy		0.00		
4. Arrears ED		0.00		
5. Arrears D P S		0.00		
6. Positive Bill Amount		0.00		
7. DPS on Positive Bill Amount		0.00		
Total Arrear		-39744.94		
Details of Consumer Bill				
8. Current DPS on Arre kept in abeyance		0.00		
9. Current month D P S		0.00		
10. Maximum Demand Charge @ 550 / per KVA		536250.00		
11. Excess Demand Charge (for exceeding 105 % of CD)		0.00		
12. Energy Charge		2721706.68		
KVAH (HT)				
13H @ 6.384		445922.41		
21H @ 7.980		1065856.66		
AMG/DAG/AMC		1209927.61		
13. Electricity Duty (ED)		163302.40		
14. Meter Rent (incl. COST Rs.0,SGST Rs.0)		0.00		
15. FPPCA Charges		0.00		
16. Load Factor Incentive		0.00		
17. Rental of transformer		0.00		
18. Other Charges		0.00		
19. Inefficient Arre.		0.00		
Current Assessment		3411259.08		
Total Amount		5311100.00		
20. State Govt. Subsidy (-) @ 1.50% KVAH		-525784.56		
21. Interest on SLI (-)		0.00		
22. Remission in Energy Duty (-)		0.00		
23. Remission in AMG/DAG/AMC Under BP (-)		0.00		
24. Amount kept in Abeyance with DPS (-)		0.00		
Net Amount Payable		2456130.44		
Prompt Payment Rebate (PPR)		-40982.54		
Net Amount Payable by Due Date (19.04.2025)		2415147.90		
After due date + 10 days Grace Period (29.04.2025)		2456130.44		

On default of payment of the bill, DPS will be charged as per tariff
Amount in Words: Rs. Twenty Eight Lakh Fifteen Thousand One Hundred Forty Eight only

Remarks: -

For: (Signature) _____

Energy consumption and bill

SOUTH BIHAR POWER DISTRIBUTION COMPANY LTD
METER READING ANNEXURE

Bill Number: 10184826487
Circle Name: Sasaram

Bill for the Month: MAR-2025
Division Name: Dehri

Date of Billing: 04.04.2025
Due Date of Payment: 19.04.2025
Sub Division Name: Dehri-II / CBBB

CA No.: 100720357
Old A/c No.: DEH/HT-49N/HT
Name & Address: M/S DEO MANGAL MEMORIAL TRUST
JAMHAR, KARWANDIYA, DEHRI, PATNA DEHRI-II 823105

Connection Details

Meter No. & Make: BHR31499 / SECURE METERS
C F Units: 0
B F Units: 0

Meter No. & Make: /
Meter No. & Make: /
Meter No. & Make: /

Parameters	Present Read and date	Past Read and date	Difference	MF	Consumption Diff x MF	Add 3 % Tr. Loss (if app.)	Total Consumption	Average/MMC Units
Date	31.03.2025	28.02.2025						
KVAH	1749037.50	1714507.50	34530.00	10.000	345300.00		345300.00	
1H1	714501.00	706263.50	8237.50	10.000	82375.00		82375.00	
2H1	499473.00	488342.50	11130.50	10.000	111305.00		111305.00	
3H1	535063.50	519901.50	15162.00	10.000	151620.00		151620.00	
KWH	1661794.50	1630221.50	31573.00	10.000	315730.00		315730.00	
Max Demand Recorded (KVA)	87.18	0.00	87.18		871.80		871.80	
KVAH/EX	32102.00	20849.50	1252.50	10.000	12525.00		12525.00	
1H1EX	21798.50	20546.00	1252.50	10.000	12525.00		12525.00	
2H1EX	7.50	7.50	0.00	10.000	0.00		0.00	
3H1EX	296.00	296.00	0.00	10.000	0.00		0.00	
KWH/EX	14294.00	13663.00	631.00	10.000	6310.00		6310.00	

कुलपति

VICE-CHANCELLOR
गोपाल नारायण सिंह विश्वविद्यालय
Gopal Narayan Singh University

Solar power generation is an ideal way to harness the Sun's energy. Solar energy offers several advantages, including being a renewable and abundant resource, reducing electricity bills, having low maintenance requirements, and providing environmental benefits. It not only saves the energy cost but also helps in fulfilling our role as responsible citizens by contributing positively to the environment.

Keeping this in view, a high-capacity On-Grid Solar power generation system has been installed on the rooftops of different buildings of Gopal Narayan Singh University, ensuring reliable, cost-effective, and sustainable energy. The system has a total installed capacity of 1.6 megawatts (500 kW + 1100 kW), significantly reducing the University's dependence on conventional electricity and lowering the operational costs. With this state-of-the-art solar installation, the University benefits from lower energy costs, improved fuel efficiency, and enhanced power reliability. This initiative contributes to sustainable energy adoption, supporting a cleaner and more energy-efficient future.

The System Overview & Technical Specifications are as follows:

- Total Capacity: 1.6 MW (500 kW + 1100 kW)
- System Type: On-Grid (Grid-Tied) Solar Power System
- Number of Inverters: 15
- Inverter Capacity: Combination of 60 kW, 80 kW, and 200 kW SOLIS inverters
- Solar Panel Used: TATA Power 550W Monocrystalline Panels
- Mounting Structure: Galvanized Iron (GI) with optimized tilt for maximum solar exposure
- Grid Synchronization: Integrated with the hospital's electrical network for seamless power supply
- DG Synchronization: Includes a DG Synchronizer, ensuring improved fuel efficiency and optimal power management.
- Monitoring System: LoT-based remote monitoring system for real-time performance tracking


Coordinator
IQAC (NAAC)
Gopal Narayan Singh University
Jamuhar, Sasaram, Rohtas (Bihar)

Key Features & Benefits

- Optimized Power Generation: Total generation capacity of 1.6 MW, efficiently managed with high-performance inverters.
- Energy Cost Savings: Significant reduction in electricity bills through on-site solar generation.
- Uninterrupted Power Supply: Supports critical medical infrastructure by seamlessly integrating with the hospital's power network.
- Fuel Efficiency: The DG Synchronizer optimizes diesel generator usage, reducing fuel consumption and operating costs.
- Net Metering Benefits: Surplus energy is exported to the grid, maximizing financial savings.
- Low Maintenance: The on-grid system requires minimal upkeep while ensuring long-term reliability.
- Environmental Impact: Reduces CO2 emissions, supporting a sustainable future.

Technical Specifications

- TATA Power 550W Solar Panel (Monocrystalline)
- Rated Power Output: 550W
- Module Efficiency: ~21.3%
- Cell Type: Monocrystalline PERC
- Number of Cells: 144 (Half-Cut Technology)
- Operating Voltage (Vmp): ~41.5V
- Operating Current (Imp): ~13.25A
- Open Circuit Voltage (Voc): ~49.5V
- Temperature Coefficient: -0.34%/°C (better performance in high temperatures)
- Durability: Certified for wind and snow loads (2400 Pa/5400 Pa)
- SOLIS Inverters (60 kW, 80 kW, and 200 kW Models)
- Type: Three-Phase String Inverter
- Maximum Efficiency: Up to 98.7%
- MPPT (Maximum Power Point Tracking): Multi-MPPT design for optimized power generation
- Communication Protocols: Wi-Fi / RS485/GPRS compatible for remote monitoring


Coordinator
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Gopal Narayan Singh University
Jamuhar, Sasaram, Rohtas (Bihar)

A UNIT OF DEO MANGAL MEMORIAL TRUST

Address : Jamuham, At+Po : Jamuham,
Dist Rohtas, Bihar, India-821305

Mobile No : +91-8544425011
Email id : info@gnsu.ac.in
www.gnsu.ac.in

Solar Panel for solar energy



Signature
Coordinator
IQAC (NAAC)
Gopal Narayan Singh University
Jamuhar, Sasaram, Rohtas (Bihar)

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OFFICE OF THE REGISTRAR



गोपाल नारायण सिंह
विश्वविद्यालय
कुलसचिव कार्यालय

ESTABLISHED UNDER THE BIHAR PRIVATE UNIVERSITY ACT 2013 [Act No. 20 of 2013]

Solar Panel Bill

Tax Invoice

AADI SHIV SHAKTI RENEWABLE ENEGY PRIVATE LIMITED
BHOOT NATH PATNA 800026
GSTIN/UIN: 10AAWCA8249G1ZG
State Name : Bihar, Code : 10
Consignee (Ship to)

DEO MANGAL MEMORIAL TRUST
State Name : Bihar, Code : 10
Buyer (Bill to)

DEO MANGAL MEMORIAL TRUST
Old GT Road, Vill + PO - Jamuhar
Dist- Rohtas, Bihar - 821305
MOB. +91-9971708514
State Name Bihar, Code - 10

Invoice No.

08

Delivery Note

Reference No. & Date

Buyer's Order No.

Dispatch Doc No

Dispatched through

Terms of Delivery

e-Way Bill No.

Dated:

24-Mar-23

Model/Terms of Payment

Other References

Dated

Delivery Note Date

Destination

Sl No	Description of Goods	HSN/SAC	Quantity	Rate	per	Amount
	SOLAR POWER GENERATION SYSTEM	8541140	1 Set	3,29,40,000.00	Set	3,29,40,000.00
	<i>PART BILL OF 1100 KWp</i>					
		CGST				19,76,400.00
		SGST				19,76,400.00

Total	1 Set	₹ 3,68,92,800.00
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Amount Chargeable (in words)
INR Three Crore Sixty Eight Lakh Ninety Two Thousand Eight Hundred Only

HSN/SAC	Taxable	Central Tax		State Tax		Total
	Value	Rate	Amount	Rate	Amount	Tax Amount
854140	3,29,40,000.00	6%	19,76,400.00	6%	19,76,400.00	39,52,800.00
Total	3,29,40,000.00		19,76,400.00		19,76,400.00	39,52,800.00

Tax Amount (In words) : **INR Thirty Nine Lakh Fifty Two Thousand Eight Hundred Only**

Declaration _____ for AADI SHIV SHAKTI RENEWABLE ENERGY PRIVATE LIMITED

Coordinator
IQAC (NAAC)
Narayan Singh University
ar, Sasaram, Rohtas (Bihar)

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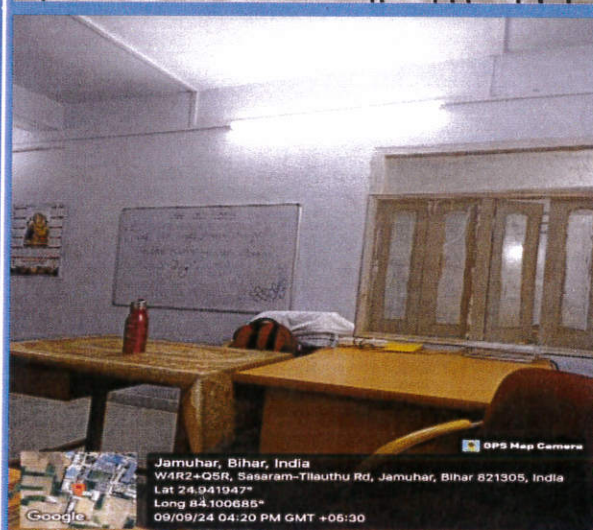
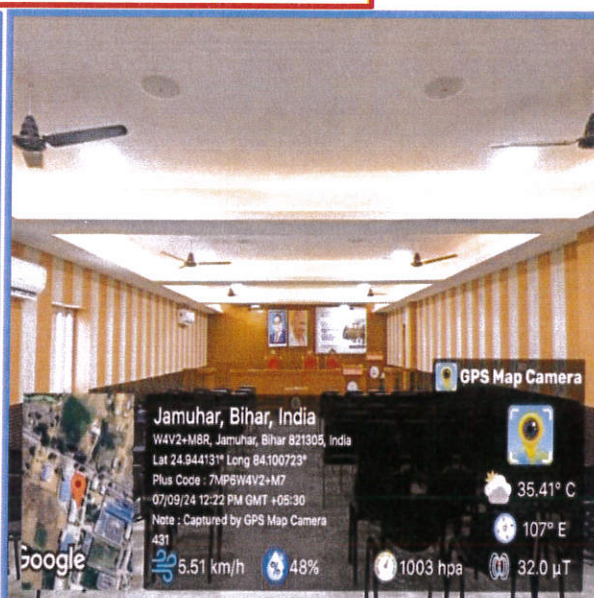
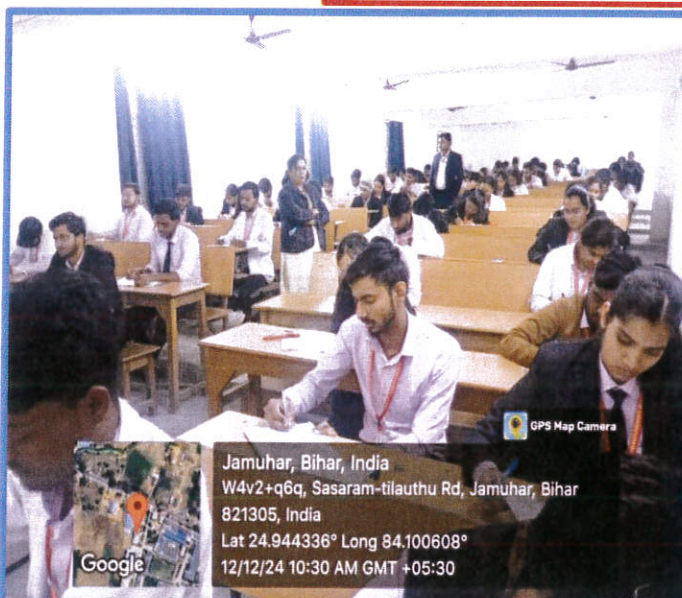
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Mobile No : +91-8544425011

Email id : Info@gnsu.ac.in

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Use of LED bulbs / power-efficient equipment



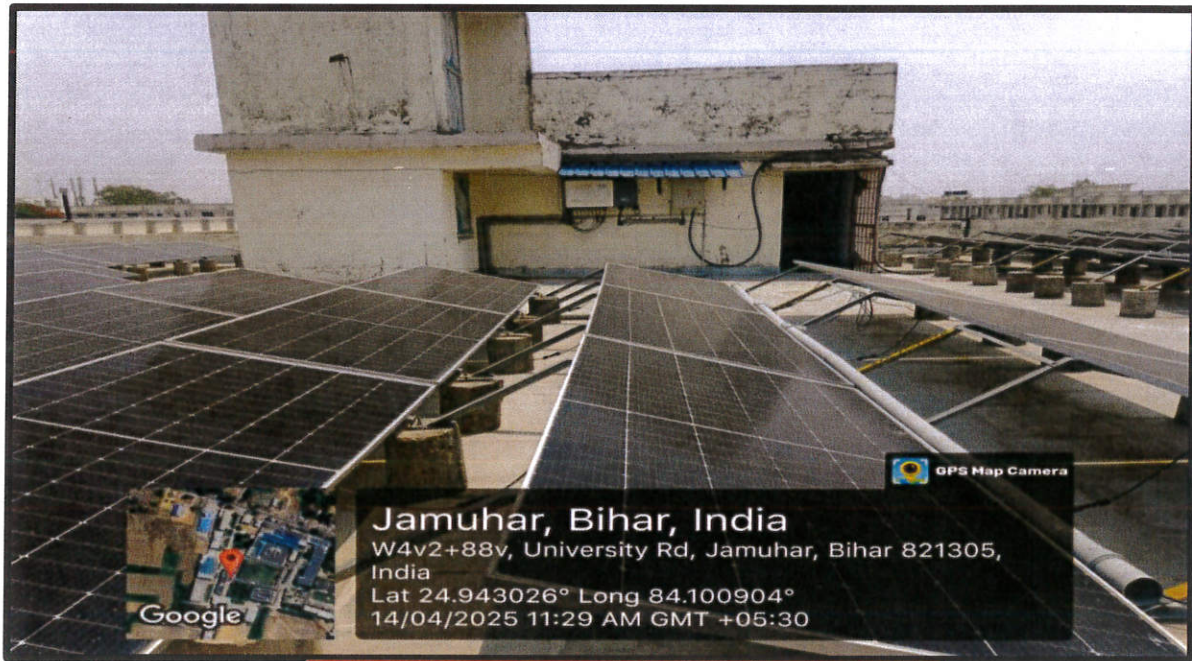

Coordinator
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Wheeling to the Grid



Sensor-based energy conservation




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