

Manipal University Jaipur's Proactive Approach to Carbon Management and Reducing CO2 Emissions

Carbon dioxide is a major greenhouse gas responsible for global warming and climate change. While many sectors contribute to CO₂ emissions, Manipal University Jaipur, with its energy-intensive operations and large campus, has a substantial impact. To counter this, Manipal University Jaipur is taking decisive steps to measure, manage, and reduce its carbon emissions.

Manipal University Jaipur has made a steadfast commitment to environmental stewardship. Recognizing the urgent need to address climate change, the institution has developed a comprehensive carbon management process as a cornerstone of its sustainability efforts. Manipal University Jaipur has conducted a rigorous assessment of its carbon footprint, encompassing all aspects of campus operations, including energy consumption, transportation, and waste management. This baseline assessment provides valuable data for setting reduction targets. With a clear understanding of its carbon emissions, the university has established ambitious reduction goals. These targets align with international climate agreements and represent a commitment to achieving net-zero emissions over the coming decades.

A significant portion of the university's emissions stems from energy consumption. As part of its carbon management strategy, the institution is investing in energy-efficient technologies, upgrading infrastructure, and optimizing energy usage across campus. To further reduce its carbon footprint, the university is transitioning to renewable energy sources. Solar panels are being integrated into the campus infrastructure to generate clean energy. Recognizing the impact of commuting and travel, the university is promoting sustainable transportation options. This includes expanding public transportation access, installing bike lanes, and incentivizing carpooling. The university is committed to environmentally responsible procurement practices. By sourcing products and materials with lower carbon footprints, it contributes to emissions reduction along the supply chain. While striving for emissions reduction, Manipal University Jaipur acknowledges that some emissions are unavoidable. To address this, it invests in carbon offset projects that capture or reduce emissions elsewhere.

Details of Air Conditioning System

		1AB	1C	2AB	FH1 , FH2 and GH	External Area	
Sl No	Type of Equipment	Total capacity in TR	Total capacity in TR	Total capacity in TR	Total capacity in TR	Total capacity in TR	Total
1	Total Chillers	480	240	810			1530
2	Exhaust and AHUs	601	127	422	10.5	25	1185.5
3	Total Cassette Units	170	324.95	966			1461
4	Total Regular Split Unit	24	26.5	17.5		19	68
5	VRV & Inverter Units	105	30	26	236.7		498.7
6	Duct able and Scroll with AUH Units		30				30
	Total Tr ->	900	787.95	1431.5	247.2	44	3409.7

Detail of External Area

1	Security Block
2	Workshop
3	Main Dispensary
4	Food Court
5	VIP Security Block
6	Workshop, Automobile Workshop, Chemical Engineering Lab

HVAC Infrastructure

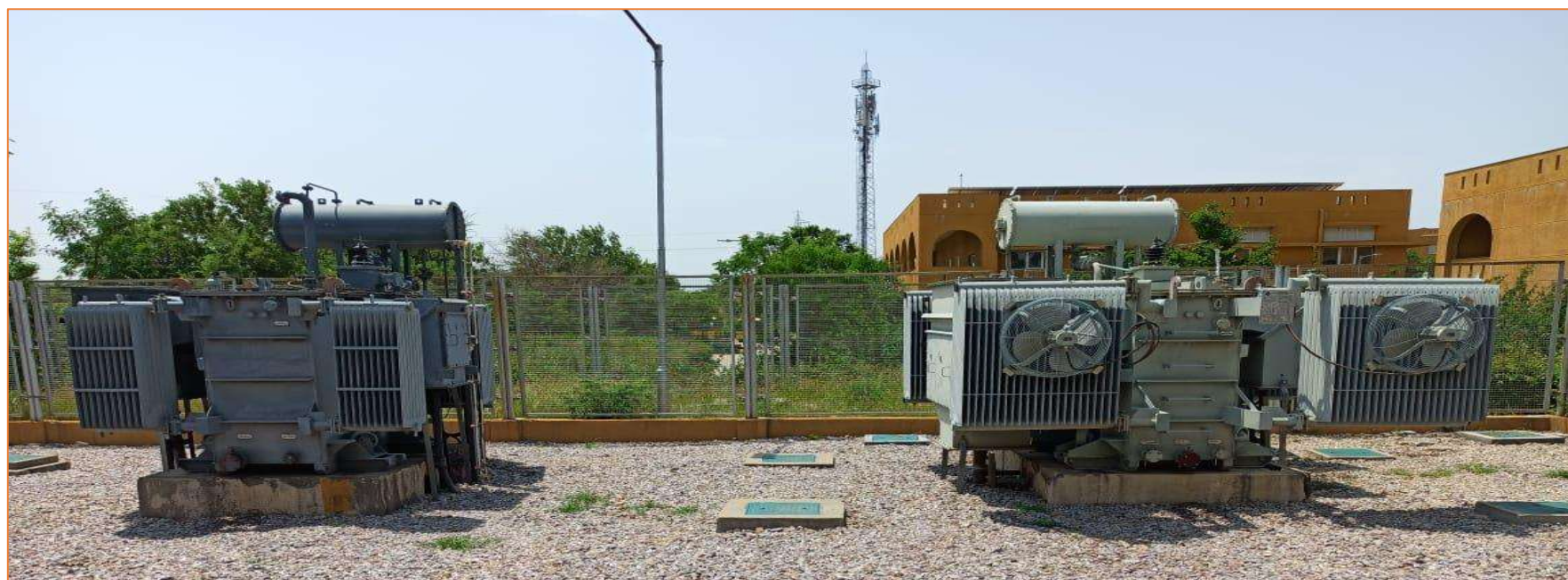


Power Control Panel	Number
33 KVA – 2 Panels	5 VCBs 33 KVA
11 KVA HT Panel – 6 Panels	16 VCBs 11 KVA
DG- EB ATS Panel – 1 Panel	2 VCBs
DG Synchronization Panel – 1 Panel	5 ACBs
LT Panels – 5 Panels	10 ACBs

Power control panels installed in MUJ campus and faculty housing including 1AB, 2AB, Admin, Food Court, Workshop, Security, Estate Office & STP and FH etc.



Sr. No.	Location	Capacity	Rating	Make
1	DG BLOCK	2500KVA	33KV/.415KV	Schneider
2	Sub station	2500kva	33/11KV	VOLTAMP
3	Sub station	2000kva	33/11KV	VOLTAMP
4	DG BLOCK	1500KVA	.415/11KV	
5	DG BLOCK	500KVA	11/.415KV	
6	1AB	1000KVA	11/.415KV	
7	1C	1000KVA	11/.415KV	



Diesel Generator Set

MUJ DG Sets	Make	Capacity
DG1	Greaves Cotton	500 KVA
DG2	Greaves Cotton	500 KVA



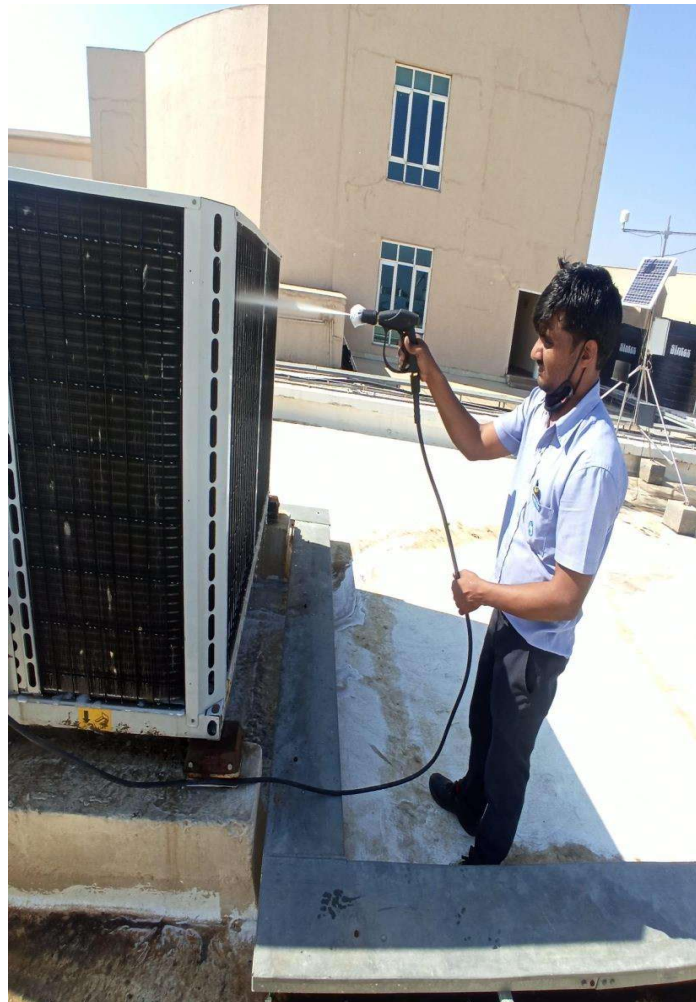


WORK PROGRESS-Lecture Hall Complex					
ACTIVITY Below Grade Slab		Northern Part	Sourthen Part	Total	
Footing	Total Qty in Cum	1883.00	2256.00	4139.00	90%
	Completed Qty in Cum	1883.00	2256.00	4139.00	
	Percentage Completion	100%	100%	100%	
Backfilling	Total Qty in Cum	9135.00	13387.50	22522.50	
	Completed Qty in Cum	8404.20	13387.50	21791.70	
	Percentage Completion	92%	100%	96%	
Stone Masonary	Total Qty in Cum	169.05	169.95	339.00	
	Completed Qty in Cum	169.05	169.95	339.00	
	Percentage Completion	100%	100%	100%	
Plinth Beam	Total Qty in Cum	135.00	165.00	300.00	
	Completed Qty in Cum	100.00	155.00	255.00	
	Percentage Completion	74%	94%	84%	
Gradeslab PCC	Total Qty in Cum	293.00	331.00	624.00	
	Completed Qty in Cum	174.00	325.00	499.00	
	Percentage Completion	59%	98%	79%	
Gradeslab RCC	Total Qty in Cum	374.80	562.20	937.00	
	Completed Qty in Cum	184.00	550.00	734.00	
	Percentage Completion	49%	98%	73%	
ACTIVITY Above Grade Slab					
Columns upto First Floor	Total Nos.	29.00	51.00	80.00	28%
	Completed Nos.	0.00	35.00	35.00	
	Percentage Completion	0%	69%	34%	
Shear Wall upto First Floor	Total Nos.	8.00	20.00	28.00	
	Completed Nos.	0.00	9.00	9.00	
	Percentage Completion	0%	45%	23%	

First Floor Slab Concrete		
Pour-1	Total Qty in Cum	250
	Completed Qty in Cum	245
	Percentage Completion	98%
Pour-2	Total Qty in Cum	410
	Completed Qty in Cum	0
	Percentage Completion	0%
Pour-3	Total Qty in Cum	90
	Completed Qty in Cum	0
	Percentage Completion	0%
Pour-4	Total Qty in Cum	410
	Completed Qty in Cum	0
	Percentage Completion	0%
Pour-5	Total Qty in Cum	320
	Completed Qty in Cum	0
	Percentage Completion	0%



AC Unit installation in Purchase Office



Chiller Cleaning – Right Wing



Expansion Tank Cleaning – 2 AB



MANIPAL UNIVERSITY
JAIPUR

Academic block-1



Before



After

Academic block-1 terrace

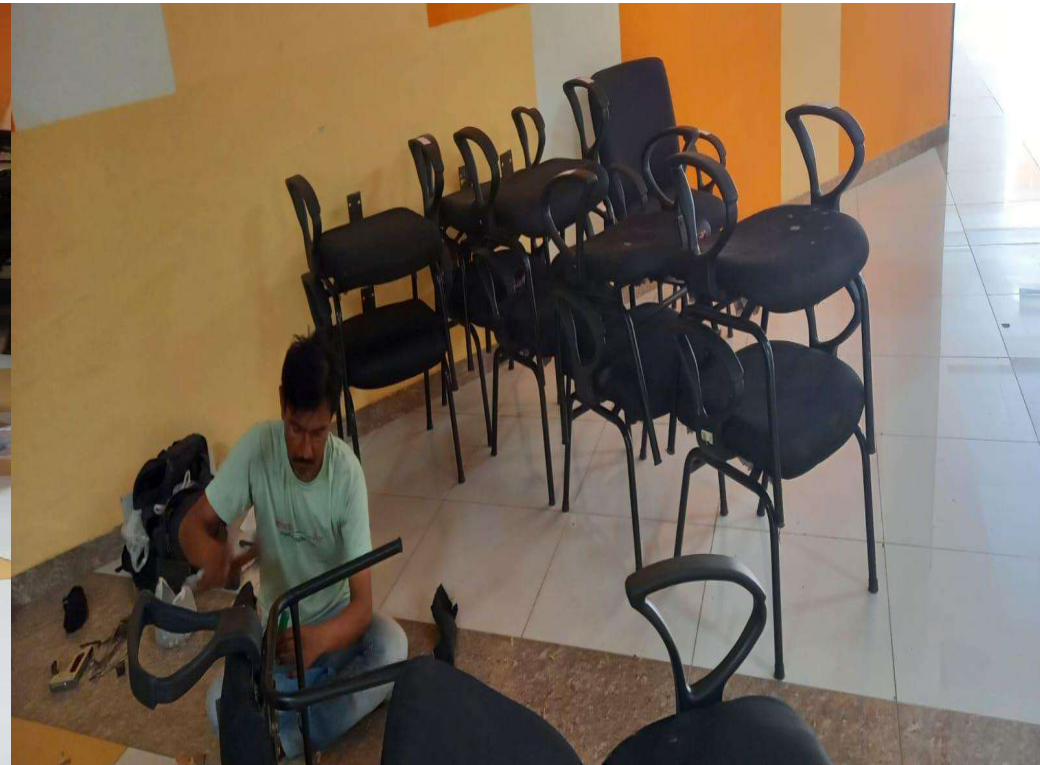


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Academic Block-2



Before



After

Chair repair



Power control Panel Maintenance



11KV Panel



LT Panel – DG Block





Academic Block-2 room no-27 furniture work



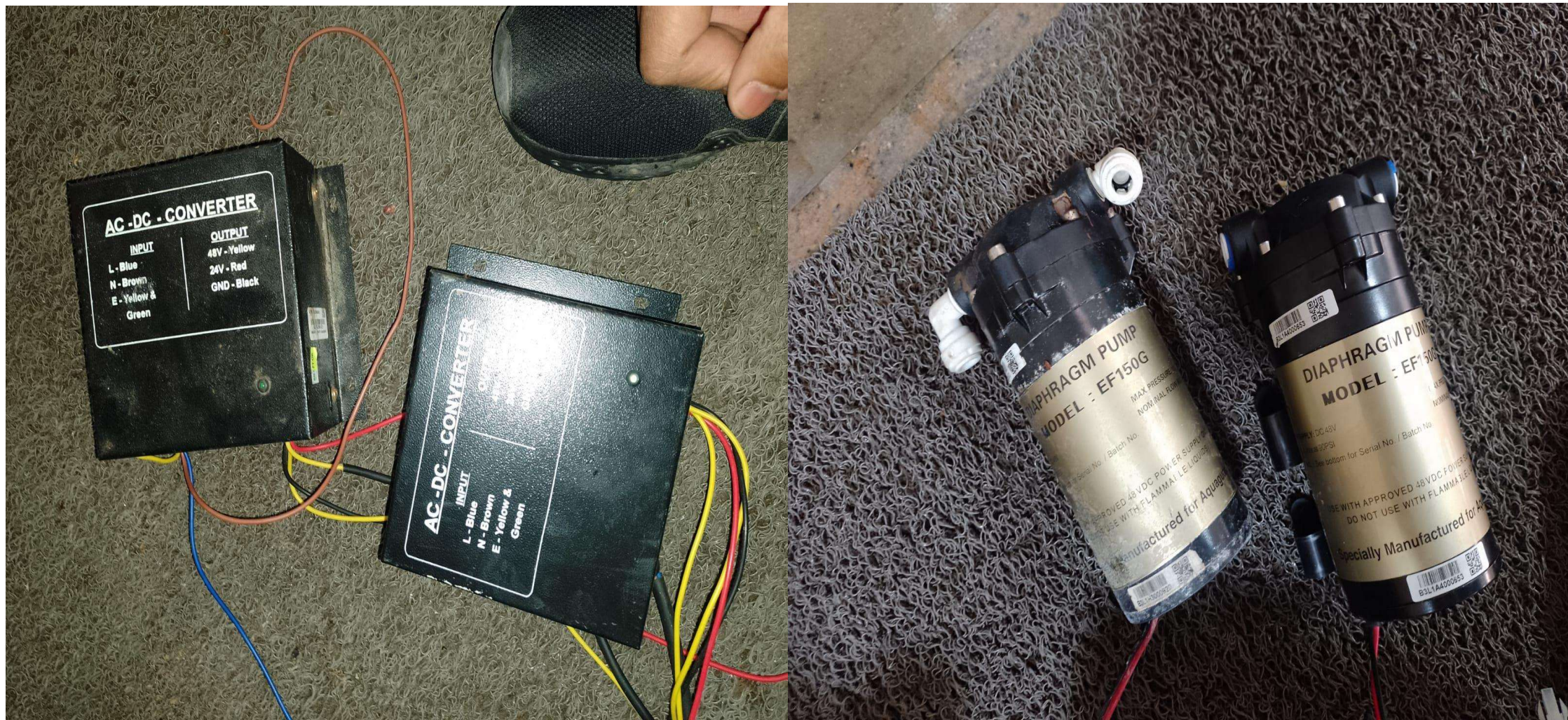
Academic block-1 212 furniture work



AC Service – 1 C Admin block 1st Floor



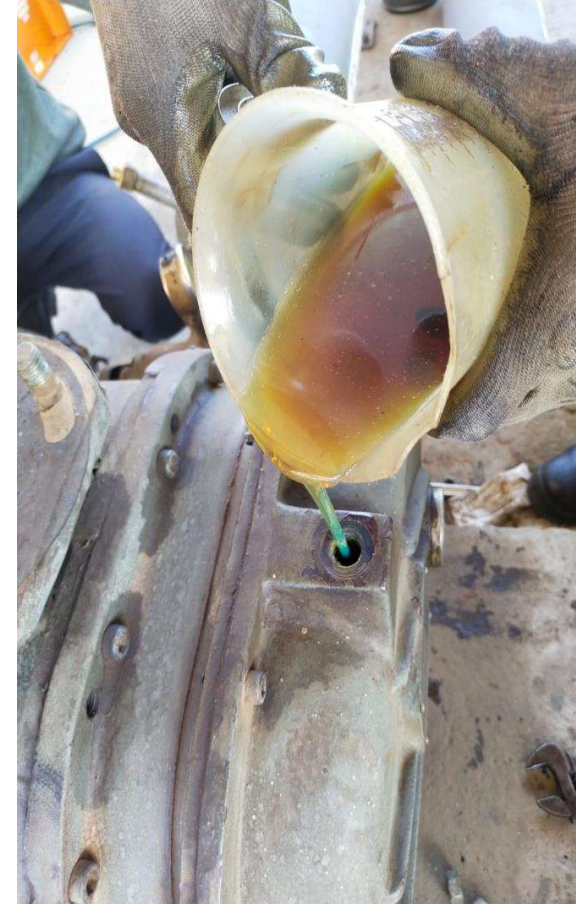
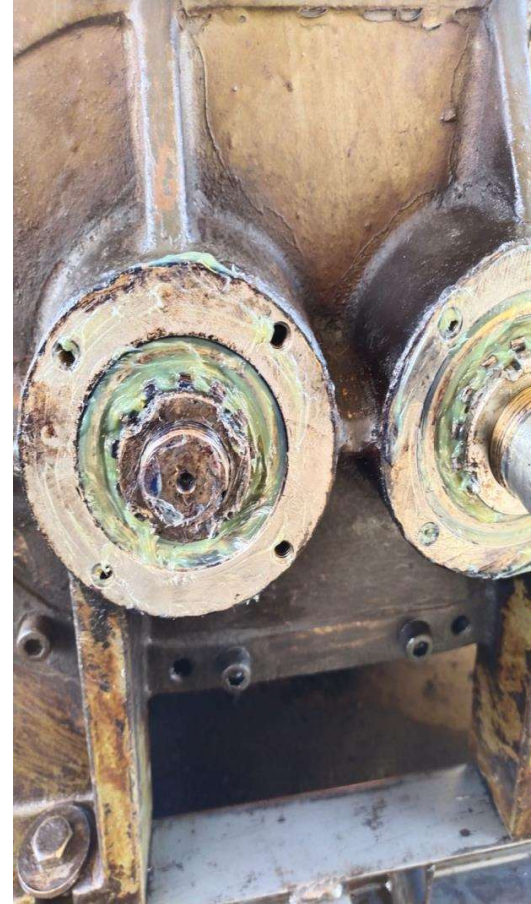
ACADEMIC BLOCK-1 TOILET REPAIR WORK IN PROGRESS



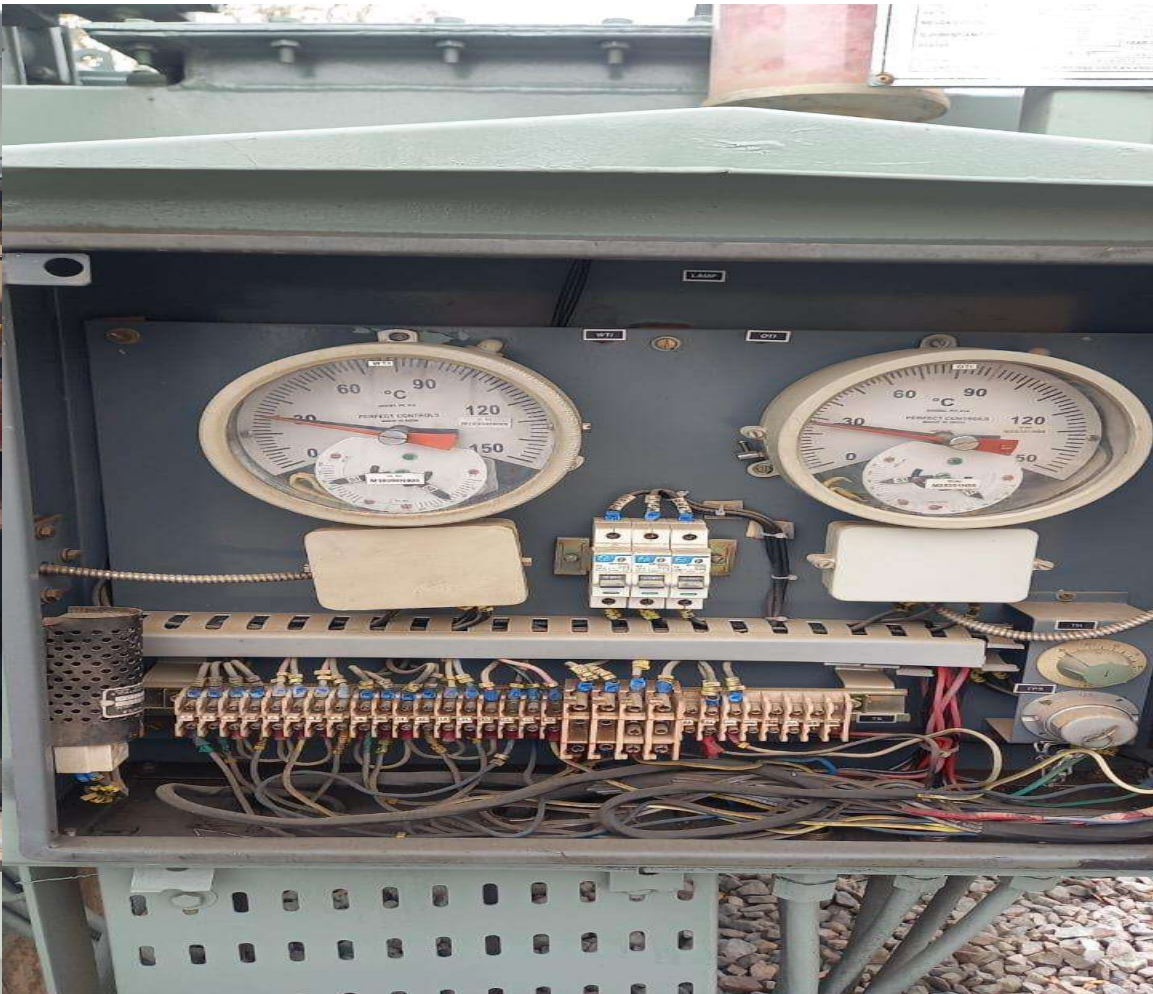
ADMINISTRATIVE BLOCK 1ST FLOOR WATER COOLER REPAIR WORK



DATA CENTRE AC MAINTENANCE WORK



STP Maintenance Activities



TRANSFORMER MAINTENANCE WORK



HVAC Repair and maintenance