



RAM KALAM - CENTRE FOR ENERGY CONSULTANCY & TRAINING

CHENNAI

COIMBATORE

ERODE

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(GST No. 33AAZFR8890A1ZN)

CERTIFICATE FOR ENVIRONMENTAL AUDIT PROCESS

This is to certify that, we have conducted an ENVIRONMENTAL AUDIT in KONGU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), Nanjanapuram, Erode - 638 107 on 25 & 26 November 2021. This audit process highlights the present CO₂ emission and methods adopted to neutralize the same in the college campus.

System Audited	Systems Inspected
• Electricity Consumption	• Solid and E-Waste Handling & Management
• Diesel Consumption (Vehicles + DG)	• RO Plant, Water Distribution System & STP
• LPG Consumption	• Water Conservation & Management
• Transport System, GWP & OPD of AC Refrigeration	• Usage of Chemical, Salts & Acids

Thank You

Audit Conducted and Verified by,

(Dr. S.R. SIVARASU)



Environmental System: CO₂ Balance Sheet (2017-18)

S. No.	Energy Consumption & CO ₂ Emission			CO ₂ Neutralization		
	Description	Energy Quantity (Annum)	CO ₂ Emission (Tons/Annum)	Description	Energy Usage	CO ₂ Neutralized (Tons/Annum)
1.	Electrical Energy	5,17,639 kWh	424.5	CO ₂ Neutralized due to Solar PV System	1,20,777 kWh	99.04
2.	Diesel (Transport + DG)	1,66,504 Litres	439.6	CO ₂ Neutralized due to Mature Trees	786 No's	17.13
3.	LPG Consumption	12,787 kg	38.4	CO ₂ Neutralized due to Solar Thermal	7,600 kWh	6.23
				CO ₂ Neutralized due to Biogas	3,825 kg	11.48
4.	Total Emission		902.4	Total-Neutralized		133.0
Balance CO₂ to be Neutralized = 768.5 Tons/Annum & Per Capita CO₂ Consumption = 0.15 Tons/Annum¹						

(¹ Total strength of students: 4,733 + Teaching and technical staff: 251 = 4,984)

Environmental System: CO₂ Balance Sheet (2018-19)

S. No.	Energy Consumption & CO ₂ Emission			CO ₂ Neutralization		
	Description	Energy Quantity (Annum)	CO ₂ Emission (Tons/Annum)	Description	Energy Usage	CO ₂ Neutralized (Tons/Annum)
1.	Electrical Energy	5,31,475 kWh	435.8	CO ₂ Neutralized due to Solar PV System	1,30,613 kWh	107.10
2.	Diesel (Transport + DG)	1,77,963 Litres	469.8	CO ₂ Neutralized due to Mature Trees	786 No's	17.13
3.	LPG Consumption	17,442 kg	52.3	CO ₂ Neutralized due to Solar Thermal	7,600 kWh	6.23
				CO ₂ Neutralized due to Biogas	3,825 kg	11.48
4.	Total Emission		958.0	Total-Neutralized		141.9
Balance CO₂ to be Neutralized = 816.0 Tons/Annum & Per Capita CO₂ Consumption = 0.16 Tons/Annum²						

(² Total strength of students: 4,823 + Teaching and technical staff: 254 = 5,077)



Environmental System: CO₂ Balance Sheet (2019-20)

S. No.	Energy Consumption & CO ₂ Emission			CO ₂ Neutralization		
	Description	Energy Quantity (Annum)	CO ₂ Emission (Tons/Annum)	Description	Energy Usage	CO ₂ Neutralized (Tons/Annum)
1.	Electrical Energy	4,76,888 kWh	391.0	CO ₂ Neutralized due to Solar PV System	87,650 kWh	71.87
2.	Diesel (Transport + DG)	1,78,798 Litres	472.0	CO ₂ Neutralized due to Mature Trees	786 No's	17.13
3.	LPG Consumption	13,680 kg	41.0	CO ₂ Neutralized due to Solar Thermal	7,600 kWh	6.23
				CO ₂ Neutralized due to Biogas	3,825 kg	11.48
4.	Total Emission		904.1	Total-Neutralized		106.7
Balance CO ₂ to be Neutralized = 797.4 Tons/Annum & Per Capita CO ₂ Consumption = 0.16 Tons/Annum ³						

(³ Total strength of students: 4,778 + Teaching and technical staff: 255 = 5,033)

Environmental System: CO₂ Balance Sheet (2020-21)

S. No.	Energy Consumption & CO ₂ Emission			CO ₂ Neutralization		
	Description	Energy Quantity (Annum)	CO ₂ Emission (Tons/Annum)	Description	Energy Usage	CO ₂ Neutralized (Tons/Annum)
1.	Electrical Energy	2,34,796 kWh	192.5	CO ₂ Neutralized due to Solar PV System	80,251 kWh	65.81
2.	Diesel (Transport + DG)	58,155 Litres	153.5	CO ₂ Neutralized due to Mature Trees	786 No's	17.13
3.	LPG Consumption	4,560 kg	13.7	CO ₂ Neutralized due to Solar Thermal	7,600 kWh	6.23
				CO ₂ Neutralized due to Biogas	3,825 kg	11.48
4.	Total Emission		359.7	Total-Neutralized		100.6
Balance CO ₂ to be Neutralized = 259.1 Tons/Annum & Per Capita CO ₂ Consumption = 0.06 Tons/Annum ⁴						

(⁴ Total strength of students: 4,438 + Teaching and technical staff: 237 = 4,675)

**Environmental System: CO₂ Balance Sheet (2021-22)**

S. No.	Energy Consumption & CO ₂ Emission			CO ₂ Neutralization		
	Description	Energy Quantity (Annum)	CO ₂ Emission (Tons/Annum)	Description	Energy Usage	CO ₂ Neutralized (Tons/Annum)
1.	Electrical Energy	1,31,718 kWh	108.0	CO ₂ Neutralized due to Solar PV System	31,805 kWh	26.08
2.	Diesel (Transport + DG)	20,756 Litres	54.8	CO ₂ Neutralized due to Mature Trees	786 No's	17.13
3.	LPG Consumption	2,375 kg	7.1	CO ₂ Neutralized due to Solar Thermal	7,600 kWh	6.23
				CO ₂ Neutralized due to Biogas	3,825 kg	11.48
4.	Total Emission		169.9	Total-Neutralized		60.9
Balance CO₂ to be Neutralized = 109.0 Tons/Annum & Per Capita CO₂ Consumption = 0.03 Tons/Annum⁵						

(⁵ Total strength of students: 4,058 + Teaching and technical staff: 250 = 4,308)