AMITY UNIVERSITY
RAJASTHAN

SDG-13: Climate Action

1. Institutional Framework

Amity University Rajasthan is registered under LEED **project for achieving GOLD** rating **from** United States Green Building Council. Leadership in Energy & Environmental Design (LEED) is a global recognized Green Building rating awarded to projects for their remarkable efforts **in achieving sustainability** and low impact on environment. The university is continue to the efforts to transform carbon based energy to carbon free energy. Since past one decade, the University is installed solar panels on the terrace of all academic buildings as well as dedicated ground tracker solar panels. Further, the university utilizes/upgrades electric appliances such as battery carts, low consumption air conditioners, LED lights etc. which reduced the amount of electricity consumption. All these efforts for reduction of the carbon emission. AUR has implemented a **dedicated Climate Action Policy**, emphasizing:

- Transition toward **low-carbon and renewable energy systems**
- Strengthening **climate-risk resilience and adaptation planning**
- Integrating **sustainability curriculum & research** across disciplines
- Supporting **community awareness & national climate missions**
- Monitoring environmental indicators on campus (air, water, land, biodiversity)

AUR proactively participates in **national & international committees, scientific networks, and working groups** related to climate research, mitigation technologies, and sustainability education. The university utilized total energy of 1469726 kWh / 5291 GJ from low carbon/solar sources.

2. Electricity Usage Pattern of AUR

FY	Electricity Consumption from Grid Supply(kWh)	Electricity Consumption from Solar Power (kWh)	Electricity Consumption from DG Sets (kWh)	Overall Usage of Electricity by University (kWh)	Solar/Renewable Power usage as %age of Total Usage (kWh)
2022-23	3356610	1449185	203531	5009326	29%
2023-24	4114840	1410045	243758	5768643	25%
2024-25	4671210	1465215	320981	6457406	23%
2025-26	4820760	1469726	196877	6487363	23%

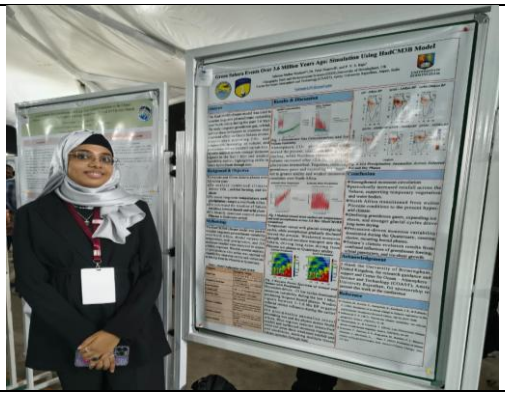
Campus Carbon Footprint (Scope 1+2, tCO2e)

FY	Diesel (Ltrs)	Scope 1 (tCO_2e) @ 2.68 kg/L	JVVNL (kWh)	Scope 2 (tCO_2e) @ 0.716 kg/kWh	Total (tCO_2e)
2022-23	66,655	178.64	33,56,610	2,403.33	**2,581.97**
2023-24	76,745	205.68	41,14,840	2,946.23	**3,151.91**
2024-25	1,06,400	285.15	46,71,210	3,344.99	**3,630.14**
2025-26	64,443	172.71	48,20,760	3,452.06	**3,624.77**

3. Key Climate Action Programs & Initiatives during 2025-26

a) Participation in National and International forums

Dr. PVS Raju delivered a talk on Enhancing Indian Summer Monsoon Rainfall Using an Optimized CMIP6 Multi-Model Ensemble Approach at International Conference "INTROMET 2025" organized by Jointly with Indian Meteorological Society and Indian Institute of Tropical Meteorology

<table>
<tr><td></td><td>
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<tr><td>Dr. PVS Raju delivered a talk at INTROMET-2026 at IITM PUNE</td><td>Dr. Shatrughan Singh delivered a talk at INTROMET-2026 at IITM PUNE</td></tr>
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<tr><td>Facutly and Research Scholars of ACOAST participated at INTROMET-2025 conference</td><td>Ms. Sabeena SRF, ACOAST gave a poster presentation at INTROMET-2025</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td colspan="2">Interaction Meeting with Director, IITM Pune, Ministry of Earth Sciences from various orgnization</td></tr>
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2.Participated HIMMET2025, organized by Defence Geoinformatics Research Establishment, DRDO, Chandigarh

Dr. PVS Raju participated in the national workshop in Weather and Climate Forecasting over Indian Himalaya organized by Defence Geoinformatics Research Establishment, DRDO Chandigarh during 8-10 December 2025.



Dr. PVS Raju participated two days brainstorming workshop on 'Early Warnings Systems for All: Consortium of Agricultural and Atmospheric Sciences' during January 13-14, 2026 at. Rajasthan Agricultural Research Institute (RARI), Durgapura, Jaipur





b) Peer reviewed Publication

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Original Article

Flood Vulnerability Assessment in Kochi Using GIS-AHP-ANN Integrated Modelling Approach

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RESEARCH ARTICLE

The Hydroclimate Paradox of the Indian Summer Monsoon Projections: Dual Amplification of Deficit and Excess Rainfall in CMIP6 Models

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Keywords: CMIP6 projections | hydroclimatic paradox | Indian summer monsoon (ISM) | monsoon extremes | SSP scenarios

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Improvement of the regional climate model with soil moisture initialization on simulations of Indian summer monsoon

M. M. Karadan & P. V. S. Raju

The influence of initializing soil moisture data in a nonhydrostatic regional climate model (RegCM) for the simulations of Indian summer monsoon (ISM) for the period 1982 to 2018 was analysed. Gridded global atmospheric reanalysis soil moisture dataset of Modern-Era Retrospective analysis for Research and Applications version 2 (MERRA2) and the model-based soil moisture estimate dataset of Climate Prediction Center (CPC), are used for the model initialization. All experiments were performed at a 25 km horizontal resolution over the ISM region, employing initial and boundary conditions from the ERA interim analysis. The results were compared with a control experiment (CTL) simulated with Community Land Model version 4.5 (CLM4.5) scheme. The results indicate that the

c) International Collaboration

The University actively collaborate with national and international institutes/University on Climate change research. Centre for Ocean atmospheric Science and technology, a specialized R&D centre of the university dedicated for Environment, Ocean and Climate Science. The University signed MoU with the Sun Yat Sen University, Zhuhai, on 24 April 2026. Under this MoU, School of Marine Sciences, SYSU, Zhuhai and Centre for Ocean atmospheric Science and technology of Amity

University Rajasthan, India jointly take up ocean and climate research over South and South Asian Region





Signing Ceremony of MoU between School of Marine Sciences, Sun Yat Sen University, Zhuhai and Centre for Ocean atmospheric Science and technology of Amity University Rajasthan, India on 24 April 2026. At SYSU, Zhuhai.



Dr. PVS Raju delivered a talk at School of Marine Sciences, Sun Yat Sen University Zhuhai on 24 April 2026



Dr. PVS Raju delivered a talk at South China Sea of Oceanology, Guangzhou on 28 April 2026