VINAYAKA MISSION'S
RESEARCH FOUNDATION
(Deemed to be University under section 3 of the UGC Act 1956)

ADVANCING THE 2030 AGENDA

ANNUAL SUSTAINABLE DEVELOPMENT GOALS REPORT

2025

SUSTAINABLE DEVELOPMENT GOALS

17 GOALS ONE SHARED FUTURE


SDG13

VINAYAKA MISSION'S RESEARCH FOUNDATION (DEEMED TO BE UNIVERSITY)

SDG 13 – CLIMATE ACTION

SDG 13 Event List

S. No.	Date	Event / Activity	Organising Institution / Department
1	5 June 2025	Variyar Riders – Green Mobility Initiative	VMKVMC&H
2	5 June 2025	Environmental Conservation Activities with the Forest Department	NEP Cell, NEP SAARTHIs and NEP Students Club, College of Physiotherapy, Salem
3	27 June 2025	World Nature Conservation Day Awareness Activities	ECO Warriors Students Club, VMCN, PDY
4	27 June 2025	Eco-Friendly Initiative by Community Medicine Students	Department of Community Medicine
5	25 July 2025	Tree Plantation Drive by NSS Unit	National Service Scheme (NSS). SRBS, PDY
6	26 July 2025	Guest Lecture on Environmental Sustainability in Coal Mining	Alumni Cell and Department of Biotechnology. VMKVEC
7	28 July 2025	Nature-Themed Drawing Competition	Environmental Student Club, VMACON
8	13 August 2025	Nature Conservation Awareness Programme	Environmental Students Club, SAHS, SLM
9	13 August 2025	Guest Lecture on Energy Storage Solutions for Renewable Integration	Department of Electrical and Electronics Engineering
10	22 August 2025	Sapling Plantation Drive	The NSS/RRC and EVS Club of the School of Arts and Science
11	26 August 2025	Eco-Friendly Vinayakar Chathurthi Celebration	Environmental Students Club and Gender Champions Club, VMHMC
12	29 August	Ek Ped Maa Ke Naam – Tree	NSS and RRC Units, VMCN, PDY

	2025	Plantation Drive	
13	14 September 2025	Run for Climate Change Marathon	Aarupadai Veedu Medical College and Hospital
14	16 September 2025	World Ozone Day Observance	Environmental Student Club, VMACON
15	16 September 2025	World Ozone Day Competitions	Environmental Students Club, AVIT
16	20 September 2025	International Coastal Cleanup Day	AVMC&H, in collaboration with Department of Science, Technology and Environment, Government of Puducherry
17	22 September 2025	Seed Ball Initiative for Ozone Day	Environmental Science Club, VMCP
18	24 September 2025	Beach Clean-Up and Plantation Drive	NSS Unit, School of Allied Health Sciences, PDY
19	26 September 2025	Environmental Health Day 2025 – Clean Air, Healthy People	Environmental Science Students Club, School of Allied Health Sciences, PDY
20	27 September 2025	Environmental Health Day and Ayurveda Day Celebrations	Eco Club, NSS and Red Ribbon Club, SAS
21	13 October 2025	International Day for Natural Disaster Reduction Observance	Environmental Student Club, VMACON
22	14 October 2025	World Wildlife Week Competitions	Tamil Nadu Forest Department and Environmental Students Club. SAHS, Chennai
23	22 October 2025	World Earthworm Day Observance	Environmental Students Club, VMACON
24	6 November 2025	Cleanup Drive and Tree Plantation Activity	NSS Unit and Environmental Club, SAHS, Chennai
25	3 December 2025	National Pollution Control Day and Seed Bomb Blitz	Environmental Students Club, AVIT, in association with IIC–AVIT

DETAILED EVENT REPORTS

1. Variyar Riders – Green Mobility Initiative

Date: 5 June 2025

Organising institution / department: VMKVMC&H

Place: VMKVMC&H campus

Event report: On World Environment Day, VMKVMC&H launched "Variyar Riders", introducing 300 eco-friendly bicycles and dedicated cyclepods. A cycle rally and treasure hunt accompanied the initiative. The programme was intended to reduce the campus carbon footprint and promote sustainable mobility.



2. Environmental Conservation Activities with the Forest Department

Date: 5 June 2025

Organising institution / department: NEP Cell, NEP SAARTHIs and NEP Students Club, College of Physiotherapy, Salem

Place: Siddhar Kovil

Event report: The NEP Cell, NEP SAARTHIs and NEP Students Club of the College of Physiotherapy, Salem, collaborated with the Forest Department at Siddhar Kovil on 5 June 2025. Activities included environmental awareness, trekking, nature journalism, tree planting, seedling orientation, a nursery visit and public awareness on wildlife management.



3. World Nature Conservation Day Awareness Activities

Date: 27 June 2025

Organising institution / department: ECO Warriors Students Club

Event report: The ECO Warriors Students Club conducted environmental awareness activities in observance of World Nature Conservation Day on 27 June 2025.



4. Eco-Friendly Initiative by Community Medicine Students

Date: 27 June 2025

Organising institution / department: Department of Community Medicine, VMMC

Place: Kalikuppam, Karaikal

Event report: Third-year MBBS students observed World Environment Day in Kalikuppam, Karaikal, by donating saplings to households and explaining the environmental and medicinal benefits of the plants. They distributed health education materials on plastic pollution, solid

waste management, water purification, stagnant water and vector breeding, air pollution and sanitation.



5. Tree Plantation Drive by NSS Unit

Date: 25 July 2025

Organising institution / department: National Service Scheme (NSS). SRBS, PDY

Place: SRBS Ground

Event report: The NSS Unit organised a tree plantation programme on 25 July 2025 at the SRBS Ground to promote environmental awareness, sustainable practices and ecological responsibility.

6. Guest Lecture on Environmental Sustainability in Coal Mining

Date: 26 July 2025

Organising institution / department: Alumni Cell and Department of Biotechnology, VMKVEC

Event report: The Alumni Cell and Department of Biotechnology hosted a guest lecture on "Environmental Sustainability in the Context of Coal Mining" on 26 July 2025 as part of the Alumni Lecture Series.



7. Nature-Themed Drawing Competition

Date: 28 July 2025

Organising institution / department: Environmental Student Club, VMACON

Event report: The Environmental Student Club organised a drawing competition on 28 July 2025 in observance of World Nature Conservation Day. The competition focused on environmental preservation and encouraged students to express environmental responsibility through art.



8. Nature Conservation Awareness Programme

Date: 13 August 2025

Organising institution / department: Environmental Students Club, SAHS, SLM

Event report: As part of the Student Induction Programme 2025–2026, the EVS Club organised a Nature Conservation Awareness Programme on 13 August 2025. Mr. V. Gokul, Founder of the Salem Nature Club, delivered a session on nature conservation, supported by interactive activities.



9. Guest Lecture on Energy Storage Solutions for Renewable Integration

Date: 13 August 2025

Organising institution / department: Department of Electrical and Electronics Engineering

Place: Indoor Auditorium

Event report: The Department of Electrical and Electronics Engineering organised a guest lecture on 13 August 2025 featuring Mr. Shebeer Mohammed, Founder and CEO of enRobosys Pvt. Ltd. The session highlighted energy storage technologies and their role in renewable energy integration.



10. Sapling Plantation Drive

Date: 22 August 2025

Organising institution / department: The NSS/RRC and EVS Club of the School of Arts and Science

Place: Flexera, Chennai

Event report: A sapling plantation drive was included in the activities reported by the Department of Computer Science and Engineering on 22 August 2025.



11. Eco-Friendly Vinayakar Chathurthi Celebration

Date: 26 August 2025

Organising institution / department: Environmental Students Club and Gender Champions Club, VMHMC

Event report: The Environmental Students Club and Gender Champions Club jointly organised an eco-friendly Vinayakar Chathurthi celebration on 26 August 2025. The celebration promoted sustainable practices and environmental consciousness among students, faculty members and volunteers.



12. Ek Ped Maa Ke Naam – Tree Plantation Drive

Date: 29 August 2025

Organising institution / department: NSS and RRC Units, VMCN, PDY

Event report: The NSS and RRC Units organised a tree plantation drive titled “Ek Ped Maa Ke Naam” on 29 August 2025 under the guidance of Dr. Edna Sweenie J., Principal-cum-Professor, VMCON, Puducherry. The initiative highlighted environmental protection and sustainability.



13. Run for Climate Change Marathon

Date: 14 September 2025

Organising institution / department: Aarupadai Veedu Medical College and Hospital

Place: Puducherry

Event report: Aarupadai Veedu Medical College and Hospital organised the Run for Climate Change Marathon on 14 September 2025. Students, faculty and community members participated to promote awareness of climate change and environmental sustainability.

14. World Ozone Day Observance

Date: 16 September 2025

Organising institution / department: Environmental Student Club, VMACON

Place: VMACON, Salem

Event report: The Environmental Student Club at VMACON observed World Ozone Day on 16 September 2025. The Principal addressed students on the importance of protecting the ozone layer and promoting sustainable environmental practices.

15. World Ozone Day Competitions

Date: 16 September 2025

Organising institution / department: Environmental Students Club, AVIT

Event report: The Environmental Students Club of AVIT commemorated World Ozone Day on 16 September 2025 by conducting competitions to promote awareness of ozone layer protection.

16. International Coastal Cleanup Day

Date: 20 September 2025

Organising institution / department: AVMC&H, in collaboration with Department of Science, Technology and Environment, Government of Puducherry

Place: Ruby Beach, Veerampatinam

Event report: AVMC&H participated in International Coastal Cleanup Day on 20 September 2025 in collaboration with the Department of Science, Technology and Environment, Government of Puducherry. Thirty medical students took part in the cleanup at Ruby Beach, Veerampatinam, promoting environmental awareness and coastal ecosystem protection.



17. Seed Ball Initiative for Ozone Day

Date: 22 September 2025

Organising institution / department: Environmental Science Club, VMCP

Event report: The Environmental Science Club conducted a seed-ball initiative on 22 September 2025 as part of Ozone Day activities and raised awareness of climate change on campus.



18. Beach Clean-Up and Plantation Drive

Date: 24 September 2025

Organising institution / department: NSS Unit, School of Allied Health Sciences

Place: Palmyra Beach, Puducherry

Event report: The NSS Unit of SAHS conducted a beach clean-up and plantation drive at Palmyra Beach, Puducherry, on 24 September 2025 as part of NSS Day 2025. Students cleaned the beach and planted saplings, promoting environmental awareness and community service.



19. Environmental Health Day 2025 – Clean Air, Healthy People

Date: 26 September 2025

Organising institution / department: Environmental Science Students Club, School of Allied Health Sciences

Place: SAHS Auditorium

Event report: The Environmental Science Students Club organised an Environmental Health Day programme on 26 September 2025. A guest lecture on "Clean Air, Healthy People" highlighted the effects of air pollution on health and promoted pollution control, green spaces and renewable energy. A poster presentation was also conducted.



20. Environmental Health Day and Ayurveda Day Celebrations

Date: 27 September 2025

Organising institution / department: Eco Club, NSS and Red Ribbon Club, SAS

Event report: The Eco Club, NSS and Red Ribbon Club jointly organised Environmental Health Day and Ayurveda Day celebrations on 27 September 2025 under the theme "Clean Air, Healthy People – Ancient Wisdom, Modern Breath". The programme included awareness sessions and student activities on air quality and sustainable living.



21. International Day for Natural Disaster Reduction Observance

Date: 13 October 2025

Organising institution / department: Environmental Student Club, VMACON

Event report: The Environmental Student Club observed the International Day for Natural Disaster Reduction on 13 October 2025.

22. World Wildlife Week Competitions

Date: 14 October 2025

Organising institution / department: Tamil Nadu Forest Department and Environmental Students Club, SAHS, Chennai

Event report: The Tamil Nadu Forest Department and Environmental Students Club jointly organised painting, drawing and quiz competitions on 14 October 2025 as part of World Wildlife Week. The activities promoted awareness of forest and wildlife conservation.



23. World Earthworm Day Observance

Date: 22 October 2025

Organising institution / department: Environmental Students Club, VMACON

Event report: The Environmental Students Club observed World Earthworm Day on 22 October 2025 to highlight the role of earthworms in maintaining soil health.



24. Cleanup Drive and Tree Plantation Activity

Date: 6 November 2025

Organising institution / department: NSS Unit and Environmental Club, SAHS, Chennai**Event report:** The NSS Unit and Environmental Club organised a cleanup drive and

tree plantation activity on 6 November 2025. The initiative aimed to promote environmental consciousness and social responsibility among students.



25. National Pollution Control Day and Seed Bomb Blitz

Date: 3 December 2025

Organising institution / department: Environmental Students Club, AVIT, in association with IIC–AVIT

Event report: The Environmental Students Club of AVIT, in association with IIC–AVIT, observed National Pollution Control Day on 3 December 2025 under the theme "Sustainable Living for a Greener Future". The programme raised awareness of environmental protection and pollution prevention and included an eco-friendly seed bomb activity.



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List of VMRF (DU) Publications Made on SDG-13 in the Year 2025

S.No	Authors	Title	Year	Source title	DOI	Source
1	Sabapathy P.C.; Parthiban A.; Bhusal C.K.; Singh S.; Sehgal R.; Qi X.	Recent improvements in starch films with cellulose and its derivatives–A review	2025	Journal of the Taiwan Institute of Chemical Engineers	10.1016/j.jtice.2024.105920	Scopus
2	Srinivasan S.; Divahar R.	Odor Emissions from Municipal Solid Waste Open Dumps Constituting Health Problems Due to their Composition, Ecological Impacts and Potential Health Risks	2025	Nature Environment and Pollution Technology	10.46488/NEPT.2025.v24i01.B4200	Scopus
3	Palraj K.; Divahar R.; Sangeetha S.P.	Green phase change materials for sustainable buildings: A pathway to low-carbon thermal management	2025	Journal of Energy Storage	10.1016/j.est.2025.118953	Scopus
4	Lasithamol N.; Sadath C.A.; Prasanth C.	A Farm-Level Exploration of the Factors Influencing Climate Change Adaptation Strategies among Rice Farmers in Kerala, India	2025	Agris On-line Papers in Economics and Informatics	10.7160/aol.2025.170105	Scopus
5	Hariram V.; Sathishbabu R.; John J.G.; Kailiappan N.; Vijayakumar K.; Kumar E.S.; Priya K.K.	Maximizing the combustion phenomenon with reduced emission of a compression ignition engine fulled with Dunaliella salina biodiesel and hydrogen blends	2025	Scientific Reports	10.1038/s41598-025-16285-x	Scopus
6	Rajasekaran M.; Krishnamoorthi S.; Ganesh P.R.; Vijayakumar A.; Yugendran S.	Synergistic Enhancement of Diesel Engine Performance and Emissions through Jackfruit Peel Biodiesel Blends: An Experimental Investigation	2025	International Journal of Vehicle Structures and Systems	10.4273/ijvss.17.1.12	Scopus
7	Baskaran D.; Nagarajan L.; Saravanan P.; Byun H.-S.	Understanding the characteristics of SO2 capture: Effect of solar-assisted adsorbent, isotherms, kinetics, thermodynamics, and mechanism	2025	Alexandria Engineering Journal	10.1016/j.aej.2025.05.031	Scopus
8	Singh S.K.; Manjunath H.R.; Santhosh M.B.; Rangegowda R.; Taneja M.; Kumar R.R.; Singh P.	Genetic Variation Analysis in Drought-Resistant Crop Species Using Molecular Markers	2025	Genetics and Molecular Research	10.4238/2q6tzv26	Scopus
9	Aggarwal D.; Reddy P.; Patil M.; Kumar A.S.; Guo Q.; Kumar S.K.; Pal P.	Biodegradable Polymer Nanocomposites from Agricultural Waste for Sustainable Packaging Applications	2025	International Academic Journal of Science and Engineering	10.71086/IAJSE/V12I4/IAJSE1233	Scopus
10	Rajasekaran M.; Krishnamoorthi S.; Vijayaragavan M.	An experimental investigation of the effects of blending camphor oil infused with jack fruit biodiesel and nanoparticles on the performance, combustion, and exhaust emissions of a compression ignition engine	2025	Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering	10.1177/09544089231225750	Scopus

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S.No	Authors	Title	Year	Source title	DOI	Source
11	Shyamalagowri M.; Prabhakaran P.; Vairavel K.S.; Devarajan R.; Hussaini M.M.; Padmavathi M.	AI-Integrated Solar Powered Autonomous Electric Vehicle and a Zero Tailpipe Emission Analysis	2025	2025 International Conference on Computational Innovations and Engineering Sustainability, ICCIES 2025	10.1109/ICCIES63851.2025.11032742	Scopus
12	Yuvaraj T.; Sengolrajan T.; Prabaharan N.; Devabalaji K.R.; Uehara A.; Senjyu T.	Enhancing Smart Microgrid Resilience and Virtual Power Plant Profitability Through Hybrid IGWO-PSO Optimization With a Three-Phase Bidding Strategy	2025	IEEE Access	10.1109/ACCESS.2025.3565460	Scopus
13	S G.S.M.	Against the current: Addressing climate-induced health disparities in India's transgender community	2025	Science Talks	10.1016/j.sctalk.2025.100473	Scopus
14	Arathi B.N.; Suresh G.B.; Karthikeyan M.; Bandlamudi S.; Sankarganesh R.; Manimaran M.	Applications of Green Renewable Energy in E-Vehicle Integrated Charging Systems	2025	Proceedings of 3rd IEEE International Conference on Knowledge Engineering and Communication Systems, ICKECS 2025	10.1109/ICKECS65700.2025.11035331	Scopus
15	Kanagaraj K.; Karuppanan K.; Nangan S.	Carbon-based nanomaterials from plant extracts and other bioresources in hydrogen storage applications	2025	Nanostructured Carbon Materials from Plant Extracts: Synthesis, Characterization, and Applications	10.1016/B978-0-323-95126-5.00009-3	Scopus
16	Basivi P.K.; Selvaraj Y.; Perumal S.; Bojarajan A.K.; Lin X.; Girirajan M.; Kim C.W.; Sangaraju S.	Graphitic carbon nitride (g–C3N4)–Based Z-scheme photocatalysts: Innovations for energy and environmental applications	2025	Materials Today Sustainability	10.1016/j.mtsust.2024.101069	Scopus
17	Balaji B.; Ingale K.; Selvakumar P.P.A.; Kong D.; Nagalakshmi R.; Garg A.	Metal-Organic Framework Catalysts for Carbon Dioxide Conversion into Value-Added Chemicals	2025	International Academic Journal of Science and Engineering	10.71086/IAJSE/V12I4/IAJSE1232	Scopus
18	Samuvel Michael B.; Krishnamoorthi S.; Senthilkumar A.; Raj Kumar G.; Praveen Kumar C.	Exploring the Impact of Varied Injection Angle on the Performance of a Variable Compression Ratio (VCR) Engine Fueled by Biodiesel from Plastic Waste	2025	Springer Proceedings in Materials	10.1007/978-981-96-7380-3_12	Scopus
19	Murugan S.K.; Rede G.D.; Baskaran T.L.; Kumari P.; Nuta A.C.	DETERMINANTS OF SOLAR WATER PUMPING SYSTEM ADOPTION AMONG FARMERS: A FACTOR ANALYSIS APPROACH	2025	Journal Of Economic Sciences: Theory And Practice	10.30546/jestp.2025.82.02.2016	Scopus
20	Vijayan D.S.; Devarajan P.; Mohanavel V.; Sankaran N.; Kannan S.; Ahsan M.S.	A Review of Sustainable Implications of Energy-Efficient Buildings in the Environment	2025	Advances in Civil Engineering	10.1155/adce/9584777	Scopus

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21	Murugan S.K.; Kumari P.; Baskaran T.L.; Dimen L.; Nuta A.C.	Comparative Economic Impact of Green Energy Investments: Evidence from India, USA, Germany, and Denmark	2025	Energies	10.3390/en18143626	Scopus
22	Manikanda Devarajan N.; Thiruppathi M.; Azhagiri M.; Malika S.; Arunkumar Madhuvappan C.; Vinod Kumar D.	Assessing the Impact of Leaf Blight on Rice Production in India: An Emerging Challenge	2025	Proceedings of 5th International Conference on Evolutionary Computing and Mobile Sustainable Networks, ICECMSN 2025	10.1109/ICECMSN68058.2025.11382956	Scopus
23	Sathiyaraj S.; Venkatesan S.; Meena R.L.; Sahoo S.S.R.	Development of a Hydrogen-Fueled Transit Vehicle	2025	Springer Proceedings in Materials	10.1007/978-981-96-7380-3_21	Scopus
24	Sahoo S.; Delhiraj N.; Desai M.; Selvarajan S.; Singh P.; Ghumman S.; Rangasamy A.	A SYSTEMATIC REVIEW OF ASSESSING THE IMPACT OF CLIMATE CHANGE ON MENTAL HEALTH IN PUBLIC HEALTH	2025	Genetics and Molecular Research	10.4238/bjv01a08	Scopus
25	Thirugnanam B.; Mani P.; Settu M.; Venkattappan A.	Unlocking the potential of photocatalysts: Recent advances in layered double hydroxide and future outlook	2025	Journal of Environmental Sciences (China)	10.1016/j.jes.2025.02.040	Scopus
26	Palraj K.; Ravi D.; Sreekumar Prabha S.	Sustainable Green Phase Change Materials: A Comprehensive Review of Thermal Energy Storage	2025	Lecture Notes in Civil Engineering	10.1007/978-981-95-2266-8_62	Scopus
27	Safare R.; Nirupama E.; Kunnathully K.; Ranjithkumar A.; Aradhya S.G.B.; Selvakumar P.; Manjunath T.C.	Environmental Diplomacy and Cross-Border Negotiations	2025	Cross-Border Cooperation in the Age of Climate Change	10.4018/979-8-3373-3972-6.ch009	Scopus
28	Krishnamoorthi S.; Prabhu L.; Rahil M.; Nagasai K.; Faim M.	Experimental Investigation of Diesel Engine Using Chlorella Algae-Acetylene by Dual Fuel Mode	2025	Springer Proceedings in Materials	10.1007/978-981-96-7380-3_7	Scopus
29	Prabhahar M.; Prakash S.; Boobesh Kumar P.; Kalidhasan B.	Enhanced Performance and Emission Characteristics of Soybean Biodiesel using TiO2 Nanoparticles in CRDI Engines: A Comprehensive Analysis	2025	International Research Journal of Multidisciplinary Technovation	10.54392/irjmt25114	Scopus
30	Krishnamoorthi S.; Thiagarajan C.; Prabhahar M.; Raghunathan A.K.; Deepak P.V.	Performance and Emission Characteristics of Soapnut Methyl Esters-Diesel Blends Between VCR and Tata Zip XL Engine	2025	Springer Proceedings in Materials	10.1007/978-981-96-7380-3_24	Scopus
31	V H.; R S.; J G.J.; Kailiappan N.; K V.; E S.K.; K K.P.	Enhanced combustion and emission characteristics of diesel-algae biodiesel-hydrogen blends in a single-cylinder diesel engine	2025	Results in Engineering	10.1016/j.rineng.2025.104676	Scopus

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32	Srinivasan S.A.; Musthafa B.; Vardhana Naidu B.V.; Kumar M.S.	Optimization and experimental investigation on CI engine characteristics fuelled with low carbon alcohols and juliflora biodiesel blends: A RSM approach	2025	Fuel	10.1016/j.fuel.2025.134542	Scopus
33	Kanagaraj K.; Nangan S.; Thirumalaivasan N.	Applications of carbon-based nanomaterials derived from plant extracts in composite materials	2025	Nanostructured Carbon Materials from Plant Extracts: Synthesis, Characterization, and Applications	10.1016/B978-0-323-95126-5.00007-X	Scopus
34	Monisha S.; Suriya P.; Johny S.; Biju A.; Scaria N.M.	Sustainable Civil Engineering Practices: Implementing Green Building Technologies with AI Assistance	2025	1st International Conference on Advances in Computer Science, Electrical, Electronics, and Communication Technologies, CE2CT 2025	10.1109/CE2CT64011.2025.10939206	Scopus