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


SDG12

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

SDG 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION

## SDG 12 Event List

| S. No. | Date | Event / Activity | Organising Institution / Department |
|---|---|---|---|
| 1 | 5 June 2025 | Orientation on Plastic-Free Practices | Environmental Club and National Service Scheme (NSS), VMHMC |
| 2 | 5 June 2025 | World Environment Day Pledge Programme | National Service Scheme (NSS), VMHMC |
| 3 | 12 July 2025 | Eco Fold Workshop 2025 – Paper Bag Day | Environmental Student Club and Youth Club, School of Allied Health Sciences, in collaboration with IANATA Foundation |
| 4 | 26 August 2025 | Eco-Friendly Vinayakar Chathurthi Celebration | Environmental Students Club and Gender Champions Club, VMHMC |
| 5 | 13 September 2025 | Swachhata Pakhwada | Aarupadai Veedu Medical College and Hospital |
| 6 | 15 September 2025 | Swachhata Pakhwada – Pledge and Cleanliness Drive | National Service Scheme (NSS), School of Allied Health Sciences |
| 7 | 15 September 2025 | Swachhata Pakhwada Awareness Drive | National Service Scheme (NSS), Vinayaka Mission's College of Nursing, KKL |
| 8 | 15 September 2025 | Swachhata Pakhwada Pledge Ceremony | NSS Unit, School of Allied Health Sciences, Puducherry Campus |
| 9 | 15 September 2025 | Swachhata Pakhwada Pledge Ceremony | NSS Unit, SAHS Youth Club and EVS Club, Chennai Campus |
| 10 | 17 September 2025 | Swachhata Hi Seva – Community Cleanliness Initiative | AVMC&H, in collaboration with Bahour Commune Panchayat |
| 11 | 24 September 2025 | Temple Clean-Up Drive | National Service Scheme (NSS), School of Allied Health Sciences |
| 12 | 24 September | Campus Clean-Up Initiative | National Service Scheme (NSS), |

| | | | |
|---|---|---|---|
| | 2025 | | Vinayaka Mission's College of Nursing |
| 13 | 30 October 2025 | Sardar@150 Cleanliness Activity | National Service Scheme (NSS) and RRC Cell |
| 14 | 13 November 2025 | Waste Management Awareness in Adopted Villages | Unnat Bharat Abhiyan (UBA) initiative and Institutional Social Responsibility (ISR) Cell, Aarupadai Veedu Institute of Technology |
| 15 | 27 November 2025 | School Competition on Safe Sanitation | Department of Community Medicine |
| 16 | 28 November 2025 | Recycling Boot Camp 2025 | Institution's Innovation Council (IIC) and Environmental Science Students Club, in collaboration with Department of Forensic Science Technology and NSS |
| 17 | 2 December 2025 | WOW Expo 2025 – Wealth Out of Waste | Fine Arts Club, VMCPT |
| 18 | 3 December 2025 | National Pollution Control Day – Environmental Awareness | Environmental Students Club, Aarupadai Veedu Institute of Technology, in association with IIC–AVIT |
| 19 | 3 December 2025 | National Pollution Control Day Awareness Rally | National Service Scheme (NSS) Unit and Fine Arts Club, VMCPT |

## DETAILED EVENT REPORTS

**1. Orientation on Plastic-Free Practices**

**Date:** 5 June 2025

**Organising institution / department:** Environmental Club and National Service Scheme (NSS), VMHMC

**Event report:** The Environmental Club and NSS Unit organised a World Environment Day orientation on "Beat Plastic Pollution" on 5 June 2025. The resource person discussed the impacts of plastic pollution, reducing single-use plastics and adopting eco-friendly daily practices. Fifty-five students and faculty members attended.




**2. World Environment Day Pledge Programme**

**Date:** 5 June 2025

**Organising institution / department:** National Service Scheme (NSS), VMHMC

**Event report:** A World Environment Day pledge programme was conducted on 5 June 2025, with 65 NSS volunteers participating and affirming their commitment to environmental sustainability.



**3. Eco Fold Workshop 2025 – Paper Bag Day**

**Date:** 12 July 2025

**Organising institution / department:** Environmental Student Club and Youth Club, School of Allied Health Sciences, in collaboration with IANATA Foundation

**Place:** School of Allied Health Sciences

**Event report:** The Environmental Student Club and Youth Club of the School of Allied Health Sciences, in collaboration with the IANATA Foundation, organised the Eco Fold Workshop 2025 on 12 July 2025 to mark Paper Bag Day. The hands-on workshop promoted the use of paper bags as an alternative to plastic bags.

**4. 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. Students, faculty members and volunteers took part in the celebration, which promoted sustainable practices and environmental awareness.



**5. Swachhata Pakhwada**

**Date:** 13 September 2025

**Organising institution / department:** Aarupadai Veedu Medical College and Hospital

**Place:** Puducherry

**Event report:** Aarupadai Veedu Medical College and Hospital observed Swachhata Pakhwada on 13 September 2025. The programme highlighted cleanliness, hygiene and sanitation practices and involved activities to reinforce a clean and healthy environment.



**6. Swachhata Pakhwada – Pledge and Cleanliness Drive**

**Date:** 15 September 2025

**Organising institution / department:** National Service Scheme (NSS), School of Allied Health Sciences

**Place:** Dr. A. S. Ganesan Auditorium

**Event report:** As part of Swachhata Pakhwada, the NSS Unit of the School of Allied Health Sciences conducted a pledge and cleanliness drive on 15 September 2025. The activity promoted cleanliness and responsible waste management.




**7. Swachhata Pakhwada Awareness Drive**

**Date:** 15 September 2025

**Organising institution / department:** National Service Scheme (NSS), Vinayaka Mission's College of Nursing

**Event report:** Vinayaka Mission's College of Nursing observed Swachhata Pakhwada on 15 September 2025. Ten faculty members and 110 students participated and pledged to promote cleanliness, hygiene and sanitation in daily life.



**8. Swachhata Pakhwada Pledge Ceremony**

**Date:** 15 September 2025

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

**Place:** SAHS Seminar Hall, Puducherry Campus

**Event report:** The NSS Unit of the School of Allied Health Sciences, Puducherry Campus, organised a Swachhata Pakhwada Pledge Ceremony on 15 September 2025. Around 250 students and 15 faculty members pledged to uphold cleanliness and hygiene and contribute to a cleaner campus and its surroundings. Waste collected during the activity was handed over to Bahour Municipality for safe disposal.



**9. Swachhata Pakhwada Pledge Ceremony**

**Date:** 15 September 2025

**Organising institution / department:** NSS Unit, SAHS Youth Club and EVS Club, Chennai Campus

**Place:** SAHS, VMRF (DU), Chennai Campus

**Event report:** The NSS Unit, SAHS Youth Club and EVS Club organised a Swachhata Pakhwada Pledge Ceremony on 15 September 2025. Around 150 students and faculty members reaffirmed their commitment to cleanliness, hygiene and environmental protection.



**10. Swachhata Hi Seva – Community Cleanliness Initiative**

**Date:** 17 September 2025

**Organising institution / department: VMCN,** AVMC&H, in collaboration with Bahour Commune Panchayat

**Event report:** A Swachhata Hi Seva initiative was organised on 17 September 2025 in collaboration with Bahour Commune Panchayat. Students and faculty members participated in awareness campaigns, cleaning activities and demonstrations to promote cleanliness and hygiene in the community.



**11. Temple Clean-Up Drive**

**Date:** 24 September 2025

**Organising institution / department:** National Service Scheme (NSS), School of Allied Health Sciences

**Place:** 1008 Shivalayam

**Event report:** The School of Allied Health Sciences observed NSS Day on 24 September 2025 with a temple clean-up drive at 1008 Shivalayam. The activity encouraged volunteerism, community service and responsibility for maintaining clean public spaces.




**12. Campus Clean-Up Initiative**

**Date:** 24 September 2025

**Organising institution / department:** National Service Scheme (NSS), Vinayaka Mission's College of Nursing

**Place:** College campus

**Event report:** The NSS Unit organised a campus clean-up drive on 24 September 2025 as part of Swachhata Hi Seva and NSS Day. Nearly 50 students participated and collected approximately 30 kilograms of garbage, helping maintain a clean and healthy campus environment.




**13. Sardar@150 Cleanliness Activity**

**Date:** 30 October 2025

**Organising institution / department:** National Service Scheme (NSS) and RRC Cell, VMCN, PDY

**Place:** Campus and nearby public areas

**Event report:** On 30 October 2025, the NSS and RRC Cell organised a cleanliness activity as part of the Sardar@150 celebrations. Volunteers cleaned the campus and nearby public areas, reinforcing the importance of maintaining a clean environment.



**14. Waste Management Awareness in Adopted Villages**

**Date:** 13 November 2025

**Organising institution / department:** Unnat Bharat Abhiyan (UBA) initiative and Institutional Social Responsibility (ISR) Cell, Aarupadai Veedu Institute of Technology

**Place:** Naduvakarrai and Sirudavoor

**Event report:** An awareness programme on waste management practices was organised on 13 November 2025 in the adopted villages of Naduvakarrai and Sirudavoor under the Unnat Bharat Abhiyan initiative and Institutional Social Responsibility Cell. The programme focused on promoting awareness of responsible waste management in the villages.



**15. School Competition on Safe Sanitation**

**Date:** 27 November 2025

**Organising institution / department:** Department of Community Medicine, VMMC

**Place:** R.M.A.S. Packirisamy Pillai Government Higher Secondary School and Government Girls High School, Kottucherry

**Event report:** The Department of Community Medicine conducted a Safe Sanitation School Competition on 27 November 2025 under an ICMR-funded project. Students participated in art, slogan-writing and one-minute video competitions on waste segregation, sewage management, plastic pollution, toilet usage and safe disposal practices.



**16. Recycling Boot Camp 2025**

**Date:** 28 November 2025

**Organising institution / department:** Institution's Innovation Council (IIC) and Environmental Science Students Club, in collaboration with Department of Forensic Science Technology and NSS, SAHS, PDY

**Event report:** The Institution's Innovation Council and Environmental Science Students Club organised the Recycling Boot Camp 2025 on 28 November 2025, in collaboration with the Department of Forensic Science Technology and NSS. The programme focused on recycling and responsible waste management.



**17. WOW Expo 2025 – Wealth Out of Waste**

**Date:** 2 December 2025

**Organising institution / department:** Fine Arts Club, VMCPT

**Event report:** As part of Recycling Week, the Fine Arts Club organised WOW Expo 2025 on 2 December 2025. Students designed and displayed innovative products made from waste materials, demonstrating the value of reuse, recycling and responsible waste management.



**18. National Pollution Control Day – Environmental Awareness**

**Date:** 3 December 2025

**Organising institution / department:** Environmental Students Club, Aarupadai Veedu Institute of Technology, in association with IIC–AVIT

**Event report:** The Environmental Students Club of Aarupadai Veedu Institute of Technology, in association with IIC–AVIT, observed National Pollution Control Day on 3 December 2025. The programme, themed "Sustainable Living for a Greener Future", raised awareness of environmental protection and pollution prevention.



**19. National Pollution Control Day Awareness Rally**

**Date:** 3 December 2025

**Organising institution / department:** National Service Scheme (NSS) Unit and Fine Arts Club, VMCPT

**Place:** Chinnaseeragapadi Village

**Event report:** The NSS Unit and Fine Arts Club organised an awareness rally at Chinnaseeragapadi Village on 3 December 2025. The rally highlighted the harmful effects of plastic bags and promoted eco-friendly alternatives through the “Meendum Manjal Pai” initiative.



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**List of VMRF (DU) Publications Made on SDG-12 in the Year 2025**

| S.No | Authors | Title | Year | Source title | DOI | Source |
|---|---|---|---|---|---|---|
| 1 | 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 |
| 2 | Nageswari N.; Divahar R.; Venkatesan N. | Synergic effect of bio-enhanced cement with nano biomass silica and polycarboxylate ether: Enhancing strength and microstructure for sustainable construction | 2025 | Materials Chemistry and Physics | 10.1016/j.matchemphys.2025.130761 | Scopus |
| 3 | Sankaranarayanan N.; Gayathiri E.; Nagarajan P.; Patil S.J.; Prakash P. | Ethical issues and safety features of nanomaterials in food packaging | 2025 | Nanotechnology in Food Packaging | 10.1007/978-3-031-82399-2_7 | Scopus |
| 4 | Varshini G.; Vinush R.; Amaran S.; Sreekumar K.; Shobana R. | Comparing Adversarially Trained DCATL with CNNs for Plant Disease Classification | 2025 | 2025 International Conference on Computing Technologies and Data Communication, ICCTDC 2025 | 10.1109/ICCTDC64446.2025.11158188 | Scopus |
| 5 | Loganathan P.; Devika S.V.; Trivedi L.M.; Devi S.R.; Malik N.; Jayakumar D. | Optimizing Urban Solid Waste-to-Energy Production Systems with Backpropagation Neural Network Model | 2025 | 3rd International Conference on Integrated Circuits and Communication Systems, ICICACS 2025 | 10.1109/ICICACS65178.2025.10967692 | Scopus |
| 6 | 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 |
| 7 | Gunasekaran N.; Kumar N.K.; Saranya L.R.; Aravindha Babu N.; Chinnathambi K.; Malakondaiah S.; Motcha Rakkini V.; Ryntathiang I.; Jothinathan M.K.D. | Biodegradation of Textile Dye Effluent Using Bacteria and Fungi Isolated from Textile Effluent and Optimization of Environmental Parameters | 2025 | International Journal of Advanced Science and Engineering | 10.29294/IJASE.12.2.2025.5796-5805 | Scopus |
| 8 | Monisha S.; Sangeetha S.P. | Analysis of Plants, Helianthus annuus (Sunflower) and Gossypium herbaceum (Cotton), for the Control of Heavy Metals Chromium and Arsenic Using Phytoremediation Techniques | 2025 | Nature Environment and Pollution Technology | 10.46488/NEPT.2025.v24i02.B4237 | Scopus |
| 9 | Selvaraj Y.; Eswaramoorthy N.; Elayappan V.; Muthusamy P.K.; Venkattappan A.; Paramasivam K.; Mtangi M.M.; Sangaraju S. | 2D/2D N-doped reduced graphene oxide/hexagonal boron nitride composites from recycled batteries for high-performance symmetric coil cell supercapacitors | 2025 | Results in Engineering | 10.1016/j.rineng.2025.107619 | Scopus |

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| S.No | Authors | Title | Year | Source title | DOI | Source |
|---|---|---|---|---|---|---|
| 10 | Khushboo; Ramu K.; Pavithra M.S.; Kannan S.; Kalia A.; Phansalkar S. | MANAGING CONTEMPORARY ART INSTITUTIONS WITH PREDICTIVE INSIGHTS | 2025 | ShodhKosh: Journal of Visual and Performing Arts | 10.29121/shodhkosh.v6.i5s.2025.6922 | Scopus |
| 11 | Nangan S.; Gopi S.; Kanagaraj K. | Green synthesized carbon nanomaterials in microelectronics | 2025 | Nanostructured Carbon Materials from Plant Extracts: Synthesis, Characterization, and Applications | 10.1016/B978-0-323-95126-5.00003-2 | Scopus |
| 12 | Surya R.; Subhikshni V.S.; Kasthuri J.; Sundaram R.S.S. | EcoTrack: AI-Powered Smart Waste Management System | 2025 | Proceedings - 1st International Conference on Frontier Technologies and Solutions, ICFTS 2025 | 10.1109/ICFTS62006.2025.11032071 | Scopus |
| 13 | Ranganathan C.S.; Arokiaraj Jovith A.; Selvarani P.; Saravana Kumar S.; Sujatha S.; Niranjan Kumar K.A. | IoT-Driven Green Building Materials and Life Cycle Assessment with Gradient Boosting Machines | 2025 | 2024 International Conference on Smart Technologies for Sustainable Development Goals, ICSTSDG 2024 | 10.1109/ICSTSDG61998.2024.11026661 | Scopus |
| 14 | Michael B.S.; Krishnamoorthi S.; Prakash S.; Gokul T.; Khan S.M.R. | Waste Plastic Derived Diesel - An Experimental Investigation - Enhancing Engine Performance and Reducing Emissions Through Thermal Barrier Coatings | 2025 | Indian Journal of Environmental Protection | | Scopus |
| 15 | Vaidehi V.; Hema R.; Srinivasan C.; Kumar P.S.V.S.; Ruba M.; Vivek V. | Optimizing Plant Disease Resistance Through Cloud-Enabled Microbiome Analysis Using Logistic Regression | 2025 | 2025 International Conference on Computing and Communications, COMPUTINGCON 2025 | 10.1109/COMPUTINGCON64838.2025.11376916 | Scopus |
| 16 | Sona S.; Sangeetha S.P. | Eco-friendly alternative activators derived from industrial wastes for the sustainable production of two-part geopolymer concrete at low cost | 2025 | Construction and Building Materials | 10.1016/j.conbuildmat.2025.140374 | Scopus |
| 17 | Kirubakaran R.; Shameem N.; Saranya E.; Meenambigai K.; Dhanasekar R.; Parray J.A.; Yadav N.; Singh S.; Rustagi S.; Puri P.; Sharma B.; Negi R.; Yadav A.N. | Streptomyces as endomicrobiome: Potential bioinoculants for agricultural sustainability | 2025 | Journal of Applied Biology and Biotechnology | 10.7324/JABB.2025.202260 | Scopus |
| 18 | Jayanthi S.; Baby P.V.; Parameswari D.; Geetha R.; Thilagavathi P.; Jose Anand A. | Improved Convolutional Neural Network for Garbage Separation | 2025 | 2025 6th International Conference for Emerging Technology, INCET 2025 | 10.1109/INCET64471.2025.11139963 | Scopus |

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| S.No | Authors | Title | Year | Source title | DOI | Source |
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| 19 | Michael G.; Ravichandran S.; Sathiamoorthy J.; Yatoo N.A.; Govindharaj I.; Bharath E. | Optimized Faster R-CNN with Weighted ABC for High-Accuracy Gova Leaf Disease Identification | 2025 | IETACS 2025 - 2025 International Conference on Innovations and Emerging Technologies in AI and Communication Systems: Unifying AI and Communication for a Smarter Tomorrow | 10.1109/IETACS68750.2025.11385729 | Scopus |
| 20 | Naveenkumar K.; Divahar R.; Srinivasan S.; Ebey S.; Najadh N. | Odour Emissions From Urban Municipal Solid Waste Street Garbage Bins: Air and Microbial Analysis | 2025 | 2025 3rd DMIHER International Conference on Artificial Intelligence in Healthcare, Education and Industry, IDICAIHEI 2025 | 10.1109/IDICAIHEI65991.2025.11377899 | Scopus |
| 21 | 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 |
| 22 | 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 |
| 23 | Saravanan M.; Krishnamoorthi S.; Rajaram N.; Saravanakumar M. | Synthesis of Nano-Hydroxyapatite from Sea Shell and Squid Bone Waste for Advanced Bone Applications via Precipitation Process | 2025 | SSRG International Journal of Mechanical Engineering | 10.14445/23488360/IJME-V12I9P113 | Scopus |
| 24 | Rajeshwaran R.; Logeshwari J.; Abirami R. | Effect of EPS Concrete: Balancing Construction Efficiency and Environmental Sustainability | 2025 | Nature Environment and Pollution Technology | 10.46488/NEPT.2025.v24i02.B4268 | Scopus |
| 25 | Sheela T.; Kaleeswaran D.; Jeevitha S.V.; Kumar A.L.N.A.; Sunil G.; Athiraja A. | Cross-Layer Optimization in AI-Powered Cognitive Radio Networks for Dynamic Spectrum Access | 2025 | Proceedings of the 9th International Conference on Electronics, Communication and Aerospace Technology, ICECA 2025 | 10.1109/ICECA66444.2025.11382605 | Scopus |
| 26 | 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 |
| 27 | Reddy A.R.S.; Nagaraja Rao P.P.; Gopinath V.; Tikhe K.; Ajai Kumar E.; Thangadurai N. | Integrating UAV and IoT Technologies for Precision Agriculture: Efficient Seed Dropping, Fertilization, and Pest Control | 2025 | 2025 International Conference on Information, Implementation, and Innovation in Technology, I2ITCON 2025 | 10.1109/I2ITCON65200.2025.11210451 | Scopus |

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|---|---|---|---|---|---|---|
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| 29 | Kumarasundari V.; Malani P.; Namratha M.; Mehta P.; Kunal K.; Sivakumar C. | Smart Medication Disposal Systems: An IoT-Based Approachto Managing Unused Pharmaceuticals | 2025 | Proceedings ICECONF 2025 - 2025 2nd International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering | 10.1109/ICECONF65644.2025.11379623 | Scopus |
| 30 | 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 |
| 31 | Biju V.G.; Shihabudeen H.; Devabalaji K.R.; Abdul Latheef M.M.; Thomas T.; Mali G. | Federated Learning Based Crop Disease Detection in Precision Agriculture | 2025 | International Conference on Trends in Engineering Systems and Technologies, ICTEST 2025 - Proceedings | 10.1109/ICTEST64710.2025.11042416 | Scopus |
| 32 | Parthiban D.; Vijayan D.S.; Sundar S.S.; Sivasuriyan A. | Engineering Behavior Assessment of Weak Soil Stabilized Using Amalgamated Geopolymer with Industrial Waste—An Experimental Study | 2025 | Lecture Notes in Civil Engineering | 10.1007/978-981-96-1873-6_4 | Scopus |
| 33 | Azeez S.; Rahim P.A.; Sudarson J.; Ryntathiang I.; Jothinathan M.K.D.; Ramalingam S. | Chitosan from Rhizopus stolonifer: Process optimization, structural characterization and selective antimicrobial activity | 2025 | Journal of Ayurveda and Holistic Medicine | 10.70066/jahm.v13i8.2205 | Scopus |
| 34 | Dhilipkumar T.; Sadeq A.M.; Karuppusamy P.; Shankar K.V.; Murali A.P.; Darem A.A.; Selvakumar K.; Giri J. | Exploring recent advances in carrageenan-based films for sustainable food packaging applications | 2025 | European Food Research and Technology | 10.1007/s00217-025-04835-6 | Scopus |
| 35 | Balasubramaniam A.; Baskar V.V.; Jawahar Rani K.; Bhuvaanesh Ravikaruna Moorthy B.S.; Suresh M.; Murugan S. | Feedforward Neural Network for Temperature Forecasting in Smart Agriculture and Energy Planning | 2025 | 2025 3rd World Conference on Communication and Computing, WCONF 2025 | 10.1109/WCONF64849.2025.11233741 | Scopus |
| 36 | Maniraj S.P.; Monisha J.; Amutha R.; Kavitha R.; Shriidhar P.J.; Srinivasan C. | Agricultural Water Conservation through AI-Enhanced Solar IoT Networks | 2025 | 3rd International Conference on Electronics and Renewable Systems, ICEARS 2025 - Proceedings | 10.1109/ICEARS64219.2025.10940116 | Scopus |

**List of VMRF (DU) Publications Made on SDG-12 in the Year 2025**

| S.No | Authors | Title | Year | Source title | DOI | Source |
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| 37 | Kumar I.; Tamilselvam M.; Vijayakumar G.N.S.; Singh V.; Pandey R.K.; Shivanand C.G.; Rajendiran M.; Prasad A.R. | Redefining Concrete Sustainability: The Potential of Nano-Materials in Green Construction | 2025 | AIP Conference Proceedings | 10.1063/5.0263877 | Scopus |
| 38 | Soni N.; Gupta P.; Singh S.D.K.; Velramar B.; Agrawal N.; Selvan S.T.; Pamidimarri S.D.V.N.; Singh R.K. | Conversion of Plastic Waste to Chemicals and Biofuels | 2025 | Valorization of Solid Wastes to Biofuels and Chemical Products for Sustainable World | 10.1007/978-981-96-8594-3_4 | Scopus |
| 39 | Thakur S. | Environmental crises as crises of representation: Community rights and natural resource (Mis) management in India | 2025 | Jindal Global Law Review | 10.1007/s41020-025-00273-3 | Scopus |
| 40 | Kittappa T.; Padmavathi T.; Kumuda P.R.; Suresh G.B.; Murugesan G.; Revathi V. | An Intelligent Internet of Things Based Health Care Hospital Management of Medical Waste and its Segregation | 2025 | Proceedings of International Conference on Visual Analytics and Data Visualization, ICVADV 2025 | 10.1109/ICVADV63329.2025.10961033 | Scopus |
| 41 | Ramakrishnan R.; Jambunathan L.; Rajendran A. | Effect of EPS concrete: “structural performance and environmental impact on pollution control: an assessment of expanded polystyrene (EPS) concrete for sustainable construction” | 2025 | Environmental Science and Pollution Research | 10.1007/s11356-025-36785-7 | Scopus |
| 42 | Parthiban D.; Vijayan D.S.; Arunachalam S.; Kumar H.; Kumar B.; Kumar S.N.; Sankaran N. | Synergic Effect of Cashew Nutshell Ash as Partially Replaced Binding Material in Cement Concrete- an Experimental Study | 2025 | Springer Proceedings in Materials | 10.1007/978-981-96-7380-3_38 | Scopus |
| 43 | Thakur N.; Tapwal A.; Kumari K.; Thakur R.K.; Ganesamoorthy R.; Thirugnanasambandham K. | Advancements in biogenic nanoparticles synthesis, characterization and its mechanism in disease management | 2025 | Bioresource Technology Reports | 10.1016/j.biteb.2025.102227 | Scopus |
| 44 | Mukherjee S.; Thakur D.; Chandel P.K.; Chandra S.; Karia A. | Cultivating sustainable growth and well-being in digital financial education | 2025 | Exploring Psychology, Social Innovation and Advanced Applications of Machine Learning | 10.4018/979-8-3693-6910-4.ch014 | Scopus |
| 45 | 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 |
| 46 | 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 |

**List of VMRF (DU) Publications Made on SDG-12 in the Year 2025**

| S.No | Authors | Title | Year | Source title | DOI | Source |
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| 47 | 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 |
| 48 | Chauhan G.; Sudan P.; Vashisht N.; Bn K.R.; Kaur G.; Ashok Kumar S.; Sule B. | MANAGING DIGITAL MEDIA PRODUCTION THROUGH INTELLIGENT AUTOMATION | 2025 | ShodhKosh: Journal of Visual and Performing Arts | 10.29121/shodhkosh.v6.i3s.2025.6778 | Scopus |
| 49 | Manikanda Devarajan N.; Azhagiri M.; Balakrishnan S.; Brinda Devi S.; Murali G.; Vinod Kumar D. | Revolutionizing Agriculture: AI-Powered Pest Control and Disease Management using CNNs | 2025 | Proceedings of 5th International Conference on Evolutionary Computing and Mobile Sustainable Networks, ICECMSN 2025 | 10.1109/ICECMSN68058.2025.11383267 | Scopus |
| 50 | Balakrishnan S.; Sunil Kumar R.M.; Simonthomas S. | Challenges and Future Directions | 2025 | Engineering the Circular Economy: Leveraging Fuzzy Logic for Implementation | 10.1201/9781003538837-12 | Scopus |
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| 54 | Reddy S.; Bhavan Kumar M.; Ramakrishnan M.; Gupta M.; Nagarajan P.; Karna A.K.; Bhardwaj U. | Analyzing the Antimicrobial Properties of Green Synthesized Nanoparticles in Food Preservation | 2025 | Genetics and Molecular Research | 10.4238/jx940a74 | Scopus |
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| 56 | Venkatachalam S.K.; Senthilkumar D.; Duraisamy N.; Sheela T.; Moovendhan M. | Advancements in polysaccharide-based carriers for eco-friendly fungicide delivery | 2025 | Carbohydrate Polymer Technologies and Applications | 10.1016/j.carpta.2025.101026 | Scopus |
| 57 | Parvathy P.R.; Vaidehi V.; Nisha K.; Mahesh A.; Ganesan R.; Arunagiri B. | Efficient Fertilizer Variable Rate Management Using Gradient Boosting Machines and Cloud Technology | 2025 | Proceedings of the 2025 11th International Conference on Communication and Signal Processing, ICCSP 2025 | 10.1109/ICCSP64183.2025.11089270 | Scopus |

**List of VMRF (DU) Publications Made on SDG-12 in the Year 2025**

| S.No | Authors | Title | Year | Source title | DOI | Source |
|---|---|---|---|---|---|---|
| 58 | Gupta D.; Chaudhary A.K.; Verma D.; Singh W.; Nangan S.; Thanigaivel S.; Rajendran S.; Lackner M. | AHP-TOPSIS-based analysis for the wettability of agro-industrial waste particulates Bhimal fiber-reinforced epoxy bio-composites in different oil water environments | 2025 | Green Chemistry Letters and Reviews | 10.1080/17518253.2025.2461243 | Scopus |
| 59 | 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 |
| 60 | Jamuna J.; Mallik B.K.; Lakshmanan L.; Desai M.; Trivedi K.N.; Singh L.; Singh S. | Precision Livestock Management Systems for Simultaneous Optimization of Welfare Health and Environmental Footprint | 2025 | Journal of Animal Environment | 10.70102/AEJ.2025.17.4.45 | Scopus |