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


SDG9

SDG 9 Event List

S. No.	Date	Event / Activity	Organising Institution / Department
1	7 June 2025	Industry-Designed OBE Digital Campus with HCLTech	VMRF (DU), in collaboration with HCLTech Career Shaper
2	19 June 2025	MoU between VMRF (DU) and Unitos Trading Pvt. Ltd. (Unitos Aero Drone Solutions)	VMRF (DU)
3	15 July 2025	Workshop on Advancements in Fuel Cell Technology for Academic Research	Department of Electrical and Electronics Engineering
4	18th July 2025	Workshop on Digital Dentistry: Complete Digital Workflow	Department of Prosthodontics, VMSDC
5	22 July 2025	Industrial Visit to Micro Therapeutic Research Labs	Department of Biotechnology, AVIT
6	29 July 2025	Seminar on Challenges Faced in Construction Projects Due to Soil Settlement Issues	Department of Electrical and Electronics Engineering
7	30 July 2025	Two-Day Hands-on Training on Building XR Applications	Aarupadai Veedu Institute of Technology
8	04 August 2025	Skill Development Training by CSE Department and ICT Academy	Department of Computer Science and Engineering
9	7 August 2025	Alumni Lecture on Advanced Tools and Fixture Design in Industry 5.0	Department of Mechanical Engineering
10	8 August 2025	Industrial Visit to Retech	Aarupadai Veedu Institute of Technology
11	12 August 2025	Innovation and Incubation Orientation Session	Institution's Innovation Council, SAHS, SLM
12	14th August 2025	Regional Conference on Chemical Sciences	Department of Chemistry, in association with Indian

			Chemical Society – Tamil Nadu Branch
13	18 August 2025	Student-Led Session on Innovation in Artificial Intelligence	The Science Club, VMKVEC
14	21st August 2025	IPR Awareness Programme: Protecting Ideas for a Competitive Edge	Department of Pharmaceutical Engineering
15	August 25, 2025	Session on the Role of Intellectual Property Rights for Entrepreneurs	Department of Computer Science and Engineering, in association with IIC
16	29 August 2025	Research Workshop	Department of Physiotherapy, SPT
17	6 September 2025	Workshop on IPR and Artificial Intelligence	Department of Physiotherapy, SPT
18	15 September 2025	Seminar on Transforming Engineering Design – Role of CAE in Rapid Product Development	Department of Mechanical Engineering, in association with AMEA, AVIT
19	15–16 September 2025	Hands-on Training on Next-Generation AI Tools in Bioinformatics	Department of Biotechnology, AVIT
20	28th September 2025	SAE Event and Guest Lecture on Recent Trends in Electric Vehicle Technology	Department of Mechanical Engineering
21	October 14, 2025	Expert Lecture on Advanced Certifications with L&T EduTech	Department of Civil Engineering, AVIT
22	15–17 October 2025	Three-Day Workshop on AI and Its Applications	Department of Computer Science and Engineering, in collaboration with AI Nexus Club
23	24 October 2025	Workshop on Advanced Structural Analysis Using ANSYS	Department of Civil Engineering
24	29 October 2025	INNERVE'25 – Technical Symposium and Inventathon	Departments of Electronics and Communication Engineering and Biomedical Engineering, AVIT
25	15 November	Inauguration of Skill Laboratory	Department of Accident and

	2025		Emergency Care Technology
26	20 November 2025	Seminar on Nanomaterials: The Building Block of Tomorrow's Innovations	Physics and Chemistry Divisions, AVIT
27	26 November 2025	Symposium on Scalable XR Innovations	IIT Madras symposium
28	9 December 2025	Workshop on Design Thinking, Critical Thinking and Innovation	Vinayaka Mission's Kirupananda Variyar Engineering College
29	12 December 2025	Seminar on Software Development and AI for the Next Generation	Department of Computer Science and Engineering, AI Nexus Club and IIC
30	18 December 2025	Workshop on Intellectual Property Rights	Christ College
31	20 December 2025	One-Day Workshop on Intellectual Property Rights and Patents	VMRF (DU)

DETAILED EVENT REPORTS

1. Industry-Designed OBE Digital Campus with HCLTech

Date: 7 June 2025

Organising institution / department: VMRF (DU), in collaboration with HCLTech Career Shaper

Event report: VMRF (DU) and HCLTech Career Shaper launched an industry-designed Outcome-Based Education (OBE) Digital Campus on 7 June 2025. The partnership connected academic delivery with industry-designed digital education and employability objectives.

2. MoU between VMRF (DU) and Unitos Trading Pvt. Ltd. (Unitos Aero Drone Solutions)

Date: 19 June 2025

Organising institution / department: VMRF (DU)

Place: Board Room, VMRF (DU), Salem

Event report: VMRF (DU) signed a Memorandum of Understanding with Unitos Trading Pvt. Ltd. (Unitos Aero Drone Solutions), Salem, on 19 June 2025.

3. Workshop on Advancements in Fuel Cell Technology for Academic Research

Date: 15 July 2025

Organising institution / department: Department of Electrical and Electronics Engineering

Event report: The Department of Electrical and Electronics Engineering conducted a one-day workshop on "Advancements in Fuel Cell Technology for Academic Research" on 15 July 2025.



4. Workshop on Digital Dentistry: Complete Digital Workflow

Date: 18th July 2025

Organising institution / department: Department of Prosthodontics

Event report: The Department of Prosthodontics conducted a one-day workshop titled "Zero to Zen in Digital Dentistry – A Complete Digital Workflow" on 18 July 2025 at Founders Hall.



5. Industrial Visit to Micro Therapeutic Research Labs

Date: 22 July 2025

Organising institution / department: Department of Biotechnology

Event report: On 22 July 2025, the Department of Biotechnology, Aarupadai Veedu Institute of Technology, organised an industrial visit for second-, third- and final-year students to Micro Therapeutic Research Labs.



6. Seminar on Challenges Faced in Construction Projects Due to Soil Settlement Issues
Date: 29 July 2025
Organising institution / department: Department of Electrical and Electronics Engineering
Event report: The Department of Electrical and Electronics Engineering conducted a one-day workshop on "Advancements in Fuel Cell Technology for Academic Research" on 15 July 2025.

7. Two-Day Hands-on Training on Building XR Applications
Date: 30 July 2025
Organising institution / department: Aarupadai Veedu Institute of Technology
Event report: AVIT conducted a two-day hands-on training programme on building Extended Reality (XR) applications at the Intel Lab. The training provided participants with practical experience in XR application development.

8. Skill Development Training by CSE Department and ICT Academy
Date: 04 August 2025
Organising institution / department: Department of Computer Science and Engineering
Event report: The Department of Computer Science and Engineering, in collaboration with ICT Academy, hosted skill-development initiatives on 4 August 2025, including a CSR Training Programme in Robotic Process Automation.



9. Alumni Lecture on Advanced Tools and Fixture Design in Industry 5.0

Date: 7 August 2025

Organising institution / department: Department of Mechanical Engineering

Event report: On 7 August 2025, the Department of Mechanical Engineering organised an alumni lecture on "Advanced Tools and Fixture Design in Industry 5.0," featuring Mr. Praveen Kumar V, Design Engineer at Violett.



10. Industrial Visit to Retech

Date: 8 August 2025

Organising institution / department: Aarupadai Veedu Institute of Technology

Event report: Students visited Retech and gained insights into CNC laser-cutting technology, design software and embedded systems.



11. Innovation and Incubation Orientation Session

Date: 12 August 2025

Organising institution / department: Institution's Innovation Council, SAHS, SLM

Event report: The Institution's Innovation Council conducted an Innovation and Incubation Orientation Session on 12 August 2025 as part of the Student Induction Programme – Deeksharambh 2025–2026.



12. Regional Conference on Chemical Sciences

Date: 14th August 2025

Organising institution / department: Department of Chemistry, in association with Indian Chemical Society – Tamil Nadu Branch

Place: Annapoorana Engineering College, Salem

Event report: The Department of Chemistry, in association with the Indian Chemical Society – Tamil Nadu Branch, organised a Regional Conference on "Chemical Sciences – Retrospect, Realities, and Future Horizons" on 14 August 2025.

13. Student-Led Session on Innovation in Artificial Intelligence

Date: 18 August 2025

Organising institution / department: The Science Club, VMKVEC

Event report: The student-led programme explored emerging Artificial Intelligence paradigms and their applications in academic and research activities.



14. IPR Awareness Programme: Protecting Ideas for a Competitive Edge

Date: 21st August 2025

Organising institution / department: Department of Pharmaceutical Engineering

Event report: The Department of Pharmaceutical Engineering conducted an IPR awareness programme titled “IPR Awareness: Protecting Ideas for a Competitive Edge” on 21 August 2025.



15. Session on the Role of Intellectual Property Rights for Entrepreneurs

Date: August 25, 2025

Organising institution / department: Department of Computer Science and Engineering, in association with IIC

Event report: The Department of Computer Science and Engineering, in association with the Institution's Innovation Council, VMKVEC, conducted a session on the "Role of Intellectual Property Rights (IPR) for Entrepreneurs" on 25 August 2025.



16. Research Workshop

Date: 29 August 2025

Organising institution / department: Department of Physiotherapy

Place: AVIT, Chennai

Event report: The Department of Physiotherapy organised a Research Workshop to enhance research aptitude and scholarly skills, covering research methodology, data collection and analysis.

17. Workshop on IPR and Artificial Intelligence

Date: 6 September 2025

Organising institution / department: Department of Physiotherapy

Event report: On 6 September 2025, the Physiotherapy Department organised a workshop on Intellectual Property Rights and Artificial Intelligence, focusing on ownership and ethical considerations.

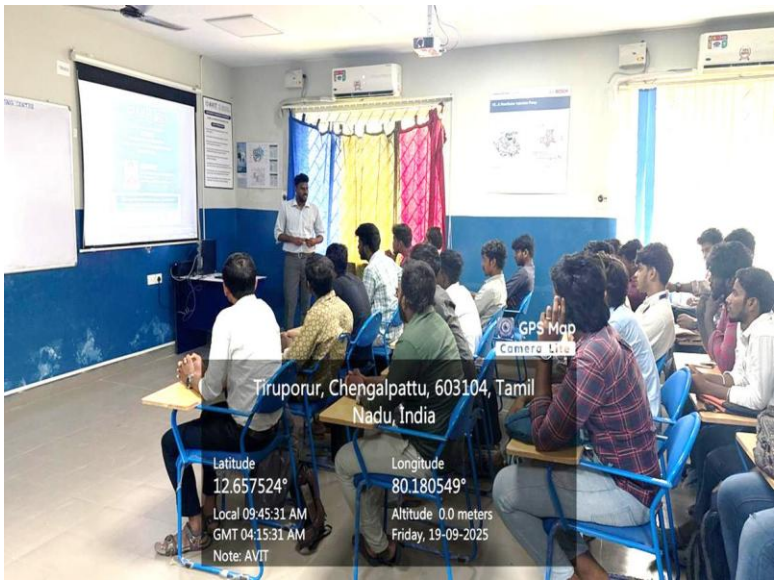


18. Seminar on Transforming Engineering Design – Role of CAE in Rapid Product Development

Date: 15 September 2025

Organising institution / department: Department of Mechanical Engineering, in association with AMEA, AVIT

Event report: The Department of Mechanical Engineering, in association with the Association of Mechanical Engineers of AVIT, organised a one-day seminar on "Transforming Engineering Design – Role of CAE in Rapid Product Development." The seminar provided insights into Computer-Aided Engineering applications in product design and development.



19. Hands-on Training on Next-Generation AI Tools in Bioinformatics

Date: 15–16 September 2025

Organising institution / department: Department of Biotechnology, AVIT

Event report: The Department of Biotechnology, AVIT, organised a two-day hands-on training programme on Next-Generation AI Tools in Bioinformatics on 15 and 16 September 2025, in collaboration with Simbioen Labs and Scientific Service Labs, Chennai.



20. SAE Event and Guest Lecture on Recent Trends in Electric Vehicle Technology

Date: 28th September 2025

Organising institution / department: Department of Mechanical Engineering

Event report: On 28 September 2025, the Department of Mechanical Engineering held its inaugural SAE event for working professional students. The morning session featured a guest lecture on recent trends in Electric Vehicle Technology.



21. Expert Lecture on Advanced Certifications with L&T EduTech

Date: October 14, 2025

Organising institution / department: Department of Civil Engineering, AVIT

Event report: The Department of Civil Engineering organised an expert lecture titled "Empowering Engineers: Advanced Certifications with L&T EduTech" on 14 October 2025.



22. Three-Day Workshop on AI and Its Applications

Date: 15–17 October 2025

Organising institution / department: Department of Computer Science and Engineering, in collaboration with AI Nexus Club

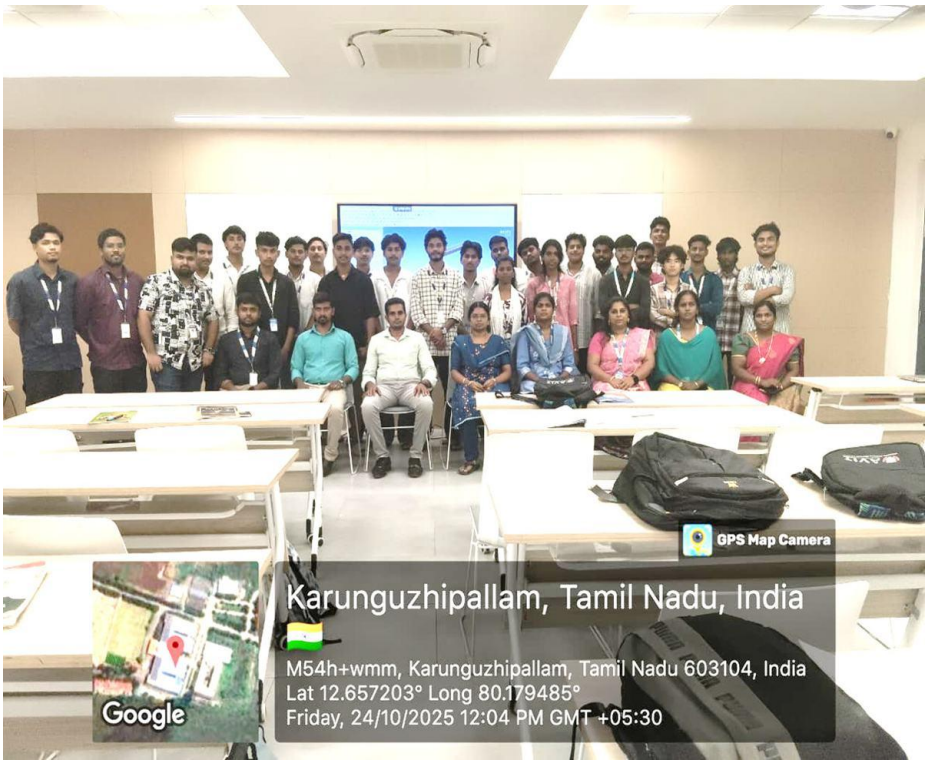
Event report: The Department of Computer Science and Engineering, in collaboration with the AI Nexus Club, organised a three-day workshop on "AI and Its Applications" from 15 to 17 October 2025. Topics included Artificial Intelligence fundamentals, no-code tools, explainable AI and generative AI.

23. Workshop on Advanced Structural Analysis Using ANSYS

Date: 24 October 2025

Organising institution / department: Department of Civil Engineering

Event report: The Department of Civil Engineering conducted a one-day workshop on Advanced Structural Analysis using ANSYS on 24 October 2025. Participants received hands-on training in structural simulation and analysis.



24. INNERVE'25 – Technical Symposium and Inventathon

Date: 29 October 2025

Organising institution / department: Departments of Electronics and Communication Engineering and Biomedical Engineering, AVIT

Event report: The Departments of Electronics and Communication Engineering and Biomedical Engineering, AVIT, hosted the technical symposium "INNERVE'25 – Unleashing Ideas, Inspiring Innovation" on 29 October 2025.



25. Inauguration of Skill Laboratory

Date: 15 November 2025

Organising institution / department: Department of Accident and Emergency Care Technology

Event report: The Department of Accident and Emergency Care Technology inaugurated a Skill Laboratory to strengthen practical training and clinical competency among students.



26. Seminar on Nanomaterials: The Building Block of Tomorrow's Innovations

Date: 20 November 2025

Organising institution / department: Physics and Chemistry Divisions

Event report: The Physics and Chemistry Divisions organised a seminar titled “Nanomaterials: The Building Block of Tomorrow’s Innovations,” featuring Dr. K. D. Nisha, Associate Professor, Department of Physics and Nanotechnology, SRM Institute of Science and Technology, Kattankulathur, Chennai as the resource person.



27. Symposium on Scalable XR Innovations

Date: 26 November 2025

Organising institution / department: AVIT

Event report: Dr. M. Muthukumaran, along with three students participated in the XR Symposium for Global South, held on November 28 at IIT Madras. The symposium brought together global experts to discuss scalable Extended Reality (XR) innovations for the Global South. Keynotes from Qualcomm, Meta, Ericsson, Samsung R&D, Accenture and Dolby covered spatial computing, XR for 6G and immersive applications.



28. Workshop on Design Thinking, Critical Thinking and Innovation

Date: 9 December 2025

Organising institution / department: Vinayaka Mission's Kirupananda Variyar Engineering College

Place: Government Primary School

Event report: Vinayaka Mission's Kirupananda Variyar Engineering College, Salem, organised a workshop on design thinking, critical thinking and innovation, focusing on creativity, problem-solving and innovation among students.



29. Seminar on Software Development and AI for the Next Generation

Date: 12 December 2025

Organising institution / department: Department of Computer Science and Engineering, AI Nexus Club and IIC

Place: Indoor Auditorium, AVIT, Chennai Campus

Event report: The Department of Computer Science and Engineering, in association with the AI Nexus Club and the Institution's Innovation Council, organised a seminar titled "Software Development & AI for the Next Generation" on 12 December 2025 at the Indoor Auditorium, AVIT, Chennai Campus.

30. Workshop on Intellectual Property Rights

Date: 18 December 2025

Organising institution / department: VMCP, PDY

Event report: The Institution Innovation Council organised a workshop titled "Intellectual Property Rights Essential: Empowering Nursing Innovation and Entrepreneurship in Nursing" on 18 December 2025. The source records an Intellectual Property Rights workshop led by Edna Sweenie J, IIC President and Principal-cum-Professor, VMCON, covering the fundamentals of Intellectual Property Rights.



31. One-Day Workshop on Intellectual Property Rights and Patents

Date: 20 December 2025

Organising institution / department: VMRF (DU)

Event report: VMRF (DU) organised a one-day workshop on Intellectual Property Rights and Patents on 20 December 2025 at Aarupadai Veedu Institute of Technology.



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List of VMRF (DU) Publications Made on SDG-9 in the Year 2025

S.No	Authors	Title	Year	Source title	DOI	Source
1	Sellamuthu P.; Gibu J.P.; Kumar V.P.S.; Reddy S.M.; Sivaraman G.; Ramakrishnan A.; Girimurugan R.	Experimental investigations and optimization of process parameter through high speed hard turning process on C45 steel	2025	AIP Conference Proceedings	10.1063/5.0276022	Scopus
2	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
3	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
4	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
5	Kittappa T.; Manjunath L.; Suresh G.B.; Selvi K.; Murali P.M.; Revathi V.	Advanced Block Chain of Electronics Health Care Medical Record Systems Wearable Device Industry 5.0	2025	3rd International Conference on Intelligent Data Communication Technologies and Internet of Things, IDCIoT 2025	10.1109/IDCIOT64235.2025.10915067	Scopus
6	Chandrabose G.S.; Sahu R.S.; Sundar M.A.; Homavazir Z.; Kalidhas A.M.; Solanki S.; Mahajan S.	A PUBLIC HEALTH EVALUATION OF EFFECTIVENESS OF VACCINATION PROGRAMS IN LOW – INCOME COUNTRIES	2025	Genetics and Molecular Research	10.4238/h5vt2n11	Scopus
7	Devarajan R.; Selvam P.	Design and Implementation of Solar Powered Induction Heater	2025	Proceedings of 5th International Conference on Trends in Material Science and Inventive Materials, ICTMIM 2025	10.1109/ICTMIM65579.2025.10988003	Scopus
8	Patel J.; Gupta S.; Jayapalan S.; Singh S.P.; Dev A.; Deokar A.A.	3D PRINTING FOR PHOTOGRAPHIC RELIEF SCULPTURES	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i5s.2025.6887	Scopus
9	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
10	Sivashankar K.; Sengodan N.; Jeyaseelan A.C.; Sundaran A.; Nair K.R.	Optimizing face milling parameters for high-speed machining of AA6061 aluminum alloy: A central composite design approach for enhanced performance	2025	AIP Conference Proceedings	10.1063/5.0275789	Scopus

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S.No	Authors	Title	Year	Source title	DOI	Source
11	Saranya R.; Jansi K.R.; Gowthami M.; Priya N.; GaneshBabu T.R.; Murugan S.	Autonomous Voltage Stabilization in Hybrid Energy Grids with Reinforcement Learning	2025	Proceedings of 5th International Conference on Trends in Material Science and Inventive Materials, ICTMIM 2025	10.1109/ICTMIM65579.2025.10988209	Scopus
12	Salam I.A.; Subramanian S.; Mandal R.K.; Veeramani V.	Wear characteristic optimization of Al7075 metal matrix composites applying Taguchi method	2025	AIP Conference Proceedings	10.1063/5.0275785	Scopus
13	Rajesh M.; Babu R.G.; Moorthy U.; Easwaramoorthy S.V.	Machine learningdriven framework for realtime air quality assessment and predictive environmental health risk mapping	2025	Scientific Reports	10.1038/s41598-025-14214-6	Scopus
14	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
15	Pothula N.; Sunkara N.; Vanitha R.; Thiyagesan M.; Aancy H.M.; Mallala B.	Beluga Whale Optimization for Effective Energy Management in Microgrids with Electric Vehicle Charging in Smart Distribution Networks	2025	Proceedings of the International Conference on Multi-Agent Systems for Collaborative Intelligence, ICMSCI 2025	10.1109/ICMSCI62561.2025.10894279	Scopus
16	Srinivasan R.; Rajakannu A.; Rajesh S.; Babu J.S.; Dinesh G.; Mayakannan S.	Friction Stir Additive Manufacturing of AA7075/Al2O3 and Al/MgB2 Composites for Improved Wear and Radiation Resistance in Aerospace Applications	2025	Journal of Environmental Nanotechnology	10.13074/jent.2025.03.2441017	Scopus
17	Nayak D.K.; Devi S.; Poornima P.; Munjal S.; Verma S.K.; Doifode V.R.	MANAGING SCULPTURE WORKSHOPS THROUGH DIGITAL TWINS	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i1s.2025.6626	Scopus
18	Elumalai S.; Somasundaram A.; Ramasamy P.	A comprehensive review on nanochitosan and its diverse applications in various industries	2025	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2025.141150	Scopus
19	Ling Z.; Behera K.K.; Dave P.D.; Chandrabose G.S.; Kumar R.; Singh S.; Prabavathy S.	Impact of Telemedicine on Healthcare Accessibility and Clinical Outcomes in Rural Populations	2025	Genetics and Molecular Research	10.4238/ajbbyj77	Scopus
20	Mitra B.; Singh A.; Sharma P.; Khalique F.; Yatoo N.A.; Das S.R.; Chavan G.	MANAGEMENT MODELS FOR DIGITAL ART ACADEMIES	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i4s.2025.6872	Scopus
21	Chandrasekharan T.; Natarajan E.; Muthuswamy P.; Jayapalan S.; Kuppuswami S.	Investigation on the efficiency of ZrN and CuN multi-layer coatings in advanced machining processes	2025	AIP Conference Proceedings	10.1063/5.0276157	Scopus

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S.No	Authors	Title	Year	Source title	DOI	Source
22	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
23	Venkatachalam R.; Supriya S.; Deshpande M.R.; Vaidevi C.; Bhattacharya S.	Implementing Zero Liquid Discharge Systems to Minimize Industrial Wastewater Residues in Mechanical Manufacturing Processes	2025	Springer Water	10.1007/978-3-031-84909-1_3	Scopus
24	Natarajan R.; Kanagaraj S.; Palaniappan T.; Dhanaskodi D.	Machinability studies on metal additive manufactured 316L stainless steel using electrochemical machine	2025	Journal of Electrochemical Science and Engineering	10.5599/jese.2567	Scopus
25	Bhanuprakash L.; Kavitha M.; Kuttimarks M.S.; Arunkumar S.; Nandhakrishnan A.; Mayakannan S.	Optimising EDM Process Parameters for Aged AA2024/B4C Metal Matrix Composites: Enhancing Mechanical Properties and Machining Efficiency	2025	International Journal of Vehicle Structures and Systems	10.4273/ijvss.17.5.29	Scopus
26	Pethappachetty P.; Thirupathi K.; Moorthy P.; Kumar M.; Prakash M.; Govindharaj A.	Pharmaceutical Manufacturing Sectors Regulatory-Based Operation Management for Parenteral Preparations	2025	International Journal of Pharmaceutical Investigation	10.5530/ijpi.20251622	Scopus
27	Tiwary A.; Priyadharshini J.; Rajput A.; Mohanty M.; Veeramuthu A.; Kaur S.; Deokar A.A.	MANAGEMENT OF DIGITAL PRINTING STUDIOS WITH AI TOOLS	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i4s.2025.6834	Scopus
28	Prasad D.; Deshpande A.; Wang X.; Casmir G.A.; Goyal A.; Srividya A.	Collaborative Robot Integration Strategies for Flexible Assembly Lines in Small-Medium Enterprises	2025	International Academic Journal of Science and Engineering	10.71086/IAJSE/V12I4/IAJSE1237	Scopus
29	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
30	Sundarrajan A.; Subramanian S.; Muthuswamy P.; Teji J.; Salam M.R.B.	Investigating the mechanical characteristics of hybrid laminates utilizing glass fiber, almond shell and epoxy resin	2025	AIP Conference Proceedings	10.1063/5.0275786	Scopus
31	Kishore B.A.; Desai A.; Tiwari S.; Arul V.	Advances in Nanoparticle-Based Drug Delivery Systems: Enhancing Targeted Therapeutic Efficacy in Pharmaceutical Science and Technologycrete Technology	2025	Journal of Neonatal Surgery	10.52783/jns.v14.1717	Scopus
32	Gayathri P.; Balamurugan J.; Gowthami M.; Usha R.; Karthick R.; Senthamil Selvan R.	Factors influencing customers' inclination to buy green products: An indian perspective	2025	Elevating Brand Loyalty With Optimized Marketing Analytics and AI	10.4018/979-8-3693-9954-5.ch009	Scopus

List of VMRF (DU) Publications Made on SDG-9 in the Year 2025

S.No	Authors	Title	Year	Source title	DOI	Source
33	Suresh G.; Kumar T.V.; Muraliraja R.; Padmapriya A.	Eco-Friendly Ni-P-TiO_2 Composite Coatings on AH36 Steel Using Plant-Extracted Nanoparticles for Marine Corrosion Resistance	2025	Tribology in Industry	10.24874/ti.2023.09.25.11	Scopus
34	Thummala H.; Priyanka K.; Sayana S.B.; Kandimalla R.	MICROBIAL PRODUCTION OF BIOSURFACTANTS AND THEIR BIOCHEMICAL CHARACTERIZATION	2025	Asian Journal of Pharmaceutical and Clinical Research	10.22159/ajpcr.2025v18i11.56591	Scopus
35	Mohanan A.S.; Rajasekaran K.; Manickam N.; Vellaisamy S.G.; Gopalan K.	Therapeutic Advances, Diagnostic Innovations, and Strategic Priorities for Global Scabies Control: An Integrative Review	2025	Journal of Communicable Diseases	10.24321/0019.5138.2026111	Scopus
36	Soudagar M.E.M.; Bashir M.N.; Vijayan D.S.; Hossain I.; Kannan S.; Obaid S.A.; Lee J.S.	Study of antimicrobial and mechanical behaviors on kapok fiber reinforced bran particulates blended epoxy matrix composite	2025	Thermal Science and Engineering Progress	10.1016/j.tsep.2024.103123	Scopus
37	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
38	Gupta A.; Gawande U.; Chandwaskar R.; Yatoo N.A.; Srivastava R.; Alone P.A.	MANAGEMENT OF PRINTING CURRICULUM IN AI ERA	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i5s.2025.6888	Scopus
39	Lakshmi T.R.V.; Babu K.S.; Kansal A.; Ishwarya M.; Suryavanshi J.; Bhan S.; Yang L.U.	Digital Twin-Enabled Predictive Maintenance Framework for Smart Manufacturing Systems	2025	International Academic Journal of Science and Engineering	10.71086/IAJSE/V12I4/IAJSE1235	Scopus
40	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
41	Darisa N.G.; Meenakshi R.; Mythili A.; Amirthalingam V.; Poonia P.; Murugan S.	Real-Time Public Transit Route Adaptation using Multi-Agent Reinforcement Learning	2025	International Conference on NexGen Networks and Cybernetics, IC2NC 2025 - Proceedings	10.1109/IC2NC67409.2025.11376454	Scopus
42	Imthiyas A.; Sathiyaraj S.; Silambarasan R.; Ramkumar V.	Preparation and Mechanical Characterization of TiC Particles Reinforced Al6061 Alloy Composites	2025	Springer Proceedings in Materials	10.1007/978-981-96-7380-3_32	Scopus
43	Sudan P.; Reddy B.; Relkar A.S.; Doifode V.R.; Surendra B.K.; Sagar V.	3D PRINTING AND AI-GUIDED SCULPTURE FABRICATION	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i1s.2025.6629	Scopus
44	Jeevitha N.; Mouleswararao B.; Mohankumar N.; GnanaPrakash L.; Mahalakshmi R.; Pachiyappan R.	AI and IoT-Driven Optimization of Solar Thermal Collectors for Industrial Heat Applications	2025	Proceedings of the 2025 11th International Conference on Communication and Signal Processing, ICCSP 2025	10.1109/ICCSP64183.2025.11089246	Scopus

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45	Misra D.; Sharma A.; Kumar B.R.; Ibrahim S.K.M.; Kshirsagar K.P.; Boopathi S.	Training for enhancing job opportunities and career empowerment in emerging markets	2025	Applications of Career Transitions and Entrepreneurship	10.4018/979-8-3693-4163-6.ch014	Scopus
46	Venkatesh A.; Shinyjoy E.; Maheswaran P.; Jeyakanthan M.	Eco-friendly synthesis of Azo-Schiff base metal complexes: evaluation of electrochemical behavior and biological activities	2025	Applied Physics A: Materials Science and Processing	10.1007/s00339-025-08896-y	Scopus
47	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
48	Nageswari C.S.; Pandey P.; Sujitha R.; Sujatha M.; Senthilkumar S.; Sujatha S.	Adaptive Solar Energy Storage with Deep Learning for Improved Grid Resilience	2025	Proceedings of 5th International Conference on Trends in Material Science and Inventive Materials, ICTMIM 2025	10.1109/ICTMIM65579.2025.10988013	Scopus
49	Kumar R.K.S.; Nagaprasad N.; Krishnaraj R.; Velu R.	3D-printed smart materials for automotive and aerospace applications	2025	Additively Manufactured Smart Materials and Structures: Design, Processing, and Applications	10.1016/B978-0-443-16144-5.00020-X	Scopus
50	Ramachandran R.; Saravanakumar P.; Mathina M.; Shinyjoy E.; Zainuddin Z.; Govindarajan R.K.; Kamaraj C.; Gopi D.; Alwi R.S.	Biogenic/chitosan/bamboo fiber ternary bio-nanocomposite: Dual-functional platform for environmental and biomedical applications	2025	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2025.148563	Scopus
51	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
52	Arulnangai R.; Thirugnanasambandham K.; Ganesamoorthy R.; Gomathi R.; Parameswari R.	Role of TiO2 nanomaterial in the treatment of polluted Cauvery River water in Tiruchirappalli district, Tamil Nadu, India	2025	Desalination and Water Treatment	10.1016/j.dwt.2025.101216	Scopus
53	Rajesh M.; Usha M.; Easwaramoorthy S.V.	Integrating holographic counterparts for intelligent IoT consumer devices	2025	Discover Internet of Things	10.1007/s43926-025-00170-0	Scopus
54	Sandhiya R.; Mariyappan K.; Soudagar M.E.M.; Subbaiah S.; Baloji D.; Muhamed H.; Dhama S.; Kumar S.	Performance enhancement of bamboo fiber polylactic acid composites: The role of nanozinc oxide in improving fire safety and moisture resistance	2025	AIP Conference Proceedings	10.1063/5.0262195	Scopus

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55	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
56	Sivakumar R.; Singh K.; Nishok V.S.; Barshe S.B.; Pokkuluri K.S.; Srihari T.; Hariram V.; Mohapatra M.R.	Urban Air Quality Monitoring System Enhanced by IoT for Comprehensive Deployment, Data Collection, and Environmental Impact Analysis	2025	WSEAS Transactions on Environment and Development	10.37394/232015.2025.21.33	Scopus
57	Chandra S.; Bhutani M.; Chethana C.; Ramaratnam M.S.; Misra D.; Kaur R.	Forecasting the Future: The Role of Digital Transformation in the Evolution of Industry 5.0 in Developing Economies	2025	Lecture Notes in Networks and Systems	10.1007/978-981-96-7707-8_21	Scopus
58	Nagarajan P.; Kannan S.; Raj A.; Louis L.R.P.; Bazeer A.B.; Kaliaperumal R.; Anand M.A.V.; Patil S.J.	Future Prospects in Medicinal Plant-Derived Drug Development: Unveiling Opportunities and Challenges	2025	Interdisciplinary Biotechnological Advances	10.1007/978-981-96-2790-5_9	Scopus
59	Subathra M.; Devika R.	A Comparative Study on Hydrothermal Liquefied Biochar as Biofertilizer for Increased Plant Yield	2025	Agricultural Science Digest	10.18805/ag.D-6047	Scopus
60	Edlabadkar A.P.; Mudadla B.; Karthick K.; Kumar M.S.; Adams A.; Selvaraju M.	Optimization of Machining Parameters and Performance Analysis of AA2024/ZrO2 Metal Matrix Composite Using TOPSIS: Insights into Squeeze Casting and Tribological Behavior	2025	Journal of Environmental Nanotechnology	10.13074/jent.2025.03.2441016	Scopus
61	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
62	Saravanabhavan S.S.; Kamalakannan V.P.; Thanarasu A.; Marimuthu N.; Devarajan P.; Dhanasingh Sivalinga V.; Natarajan K.; Natesan B.	A method to remove heavy metals from wastewater by modifying the surface of a PVDF membrane using chitosan and PANi and assessing it using the Hermia model	2025	International Journal of Biological Macromolecules	10.1016/j.ijbiomac.2025.144673	Scopus
63	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
64	Rajesh M.; Sitharthan R.	Enhanced Edge Computing for Digital Twin Applications in Energy-Intensive Industrial Systems	2025	IEEE Power Electronics Magazine	10.1109/MPEL.2025.3624984	Scopus

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65	Jayanthi L.N.; Verma S.K.; Usha R.; Sekar G.; Lakshmi V.T.; Mohankumar N.	Early Detection of Road Traffic Injuries with IoT Sensor Networks and K-Nearest Neighbors Algorithm	2025	Proceedings of International Conference on Visual Analytics and Data Visualization, ICVADV 2025	10.1109/ICVADV63329.2025.10960893	Scopus
66	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
67	Assi M.N.; Kaur S.; Chaudhary S.; Sengupta P.D.; Patel P.; Sambandan B.P.; Pawar A.R.	MANAGEMENT INNOVATION IN AI-DRIVEN ART ECOSYSTEMS	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i5s.2025.6927	Scopus
68	Limaye T.; Prasad D.; Rampal S.; Kumaran P.; Vyshnavi A.; Sidhu J.; Alone P.A.	GENERATIVE DESIGN IN 3D PRINTING EDUCATION	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i3s.2025.6765	Scopus
69	Sivanantham E.; Sridevi V.; Rajagopal V.R.; Meenatchi Ammai N.; Murugan S.; Raghavi J.	Industrial Motor Operational Risk Detection using IoT and Isolation Forest	2025	Proceedings of International Conference on Sustainable Communication Networks and Application, ICSCN 2025	10.1109/ICSCN67106.2025.11308510	Scopus
70	Kumar S.N.; Yang L.U.; Mahesh R.; Goyal U.; Farhan S.; Jadhav T.; Thakur S.	Machine Learning-Driven Quality Control in Additive Manufacturing of Aerospace Components	2025	International Academic Journal of Science and Engineering	10.71086/IAJSE/V12I4/IAJSE1236	Scopus
71	Srinivasan G.; Anaikutti P.; Mohan S.; Arukkani M.	Versatile Application of Calixarenes and Their Derivatives: From Drug Delivery to Industrial Catalysis and Environmental Remediation	2025	Critical Reviews in Analytical Chemistry	10.1080/10408347.2025.2538731	Scopus
72	Subaveerapandiyan A.; Ahmad N.; Shimray S.R.; Kalbande D.	Assessing the Impact of Diamond Open Access on Research Engagement	2025	Serials Review	10.1080/00987913.2025.2581432	Scopus
73	Tanuja S.; Varghese C.; Sozhamadevi S.; Aravindha Babu N.; Saranraj P.; Vijay K.; Behera A.; Jothinathan M.K.D.	Biowaste-Based Optimization of Amylase Production from Bacillus subtilis: A Sustainable Approach	2025	International Journal of Advanced Science and Engineering	10.29294/IJASE.12.2.2025.5503-5512	Scopus
74	Ashok P.; Sumathi D.; Natarajan K.; Balakrishnan S.	Enhancing 5G Networks Performance Using MIMO and MU-MIMO Technologies for High-Capacity Communication	2025	Internet Technology Letters	10.1002/itl2.70069	Scopus
75	Kumar P.M.; Babujanarthanam R.; Selvi R.T.; Ganesamoorthy R.; Sudan S.J.J.; Kasthuri K.; Parameswari R.	Spherical-shaped ZnO nanoparticles and their diverse surface morphological applications in various biological applications against ROS	2025	Applied Physics A: Materials Science and Processing	10.1007/s00339-025-08504-z	Scopus

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76	Simonthomas S.; Praveena J.M.; Shobana R.; Shalini K.S.; Malathi V.; Prathikksha S.	Improving Throughput Efficiency of Cyber Physical Systems Communications using Quantum Cryptography	2025	Proceedings of 2025 1st International Conference on Radio Frequency Communication and Networks, RFCoN 2025	10.1109/RFCoN62306.2025.11085331	Scopus
77	Arulnangai R.; Ganesamoorthy R.; Mohamed V.B.H.; Vivekanand P.A.; Kavitha P.; Kavitha P.; Thirugnanasambandham K.	Green synthesis of silver nanoparticles from Centella asiatica and its application in photodegradation of methylene blue dye in paper industry effluent	2025	Cleaner Water	10.1016/j.clwat.2025.100179	Scopus
78	Raj R.S.; Hema L.K.	Dynamic clustering optimization for energy efficient IoT Network: A simple constrastive graph approach	2025	Expert Systems with Applications	10.1016/j.eswa.2024.125875	Scopus
79	Kumaran P.; Sathiyaraj S.; Selva Babu B.; Yogeswar S.; Murugan T.	Design and Analysis of Hybrid Sandwich Layered Industrial Safety Helmet	2025	Springer Proceedings in Materials	10.1007/978-981-96-7380-3_30	Scopus
80	Dhavan A.; Parmar Y.; Gupta S.; Verma A.; Agarwal V.; Thangaraja T.	ETHICAL MANAGEMENT OF AI-PRODUCED DIGITAL WORKS	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i2s.2025.6720	Scopus
81	Surendra Babu K.; Prakash S.; Satapathy L.; Muhammathu Muhsin S.; Nirmal Kumar M.	FDM Process Using Prediction of Mechanical Properties of Borophene-Reinforced Polymer Nanocomposites	2025	Journal of Advanced Manufacturing Systems	10.1142/S0219686727500168	Scopus
82	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
83	Ramu K.; Deepa R.	AI-Driven DPoS and Blockchain for Secure IIoT Big-Data Analytics	2025	Proceedings of IEEE International Conference on Emerging Engineering Technologies and Applications, IC-EETA 2025	10.1109/IC-EETA66496.2025.11548398	Scopus
84	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
85	Kalyanakumar S.; Natarajan S.; Prabhahar M.; Saravanakumar M.; Sudhakaran P.; Suresh N.	TRUST-Based Optimization of High-Performance Machining Process Parameters of Aluminum for Enhanced Product Quality in Automotive Manufacturing	2025	International Journal of Vehicle Structures and Systems	10.4273/ijvss.17.1.16	Scopus

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86	Subaveerapandiyan A.; Alam A.F.; Kalbande D.; Ayanlola A.L.	Digital Transformation in Libraries: Assessing Metaverse Readiness in Nigeria	2025	Science and Technology Libraries	10.1080/0194262X.2024.2429061	Scopus
87	Gunaseelan R.J.; Raj A.; Nagarajan P.; Perumal S.; Kumar J.; Patil S.J.	Biotechnological Phytochemical Synthesis: Innovations, Challenges, Advantages, Implications	2025	Interdisciplinary Biotechnological Advances	10.1007/978-981-96-2790-5_3	Scopus
88	Sangeetha S.P.; Sona S.; Tapung N.; Kumar A.; Kumar S.	Assessing Phytoremediation Potential of Aloe barbadensis, Chrysopogon zizanioides and Ocimum tenuiflorum for Sustainable Removal of Heavy Metals from Contaminated Soil	2025	Nature Environment and Pollution Technology	10.46488/NEPT.2024.v24iS1.019	Scopus
89	Mithun Kumar S.; Kapoor P.; Gupta A.; Pal P.; Vijayakumar K.; Bhushan B.; Kannan S.	PREDICTIVE MAINTENANCE FOR DIGITAL PRINTING EQUIPMENT	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i3s.2025.6766	Scopus
90	Pathak A.; Saravanan M.; Srishti P.; Mary Praveena J.; Kurulekar M.; Taneja M.	PREDICTIVE ANALYTICS FOR FOLK ART MATERIAL REQUIREMENTSS	2025	ShodhKosh: Journal of Visual and Performing Arts	10.29121/shodhkosh.v6.i5s.2025.6880	Scopus
91	Malaiyappan P.; Ramya E.D.; Arul V.; Ganesan G.	Dengue Fever: A Rare Perspective and Emerging Strategies for Sustainable Global Control	2025	Journal of Communicable Diseases	10.24321/0019.5138.202536	Scopus