




SATHYABAMA INSTITUTE OF
SCIENCE AND TECHNOLOGY



SDG 9


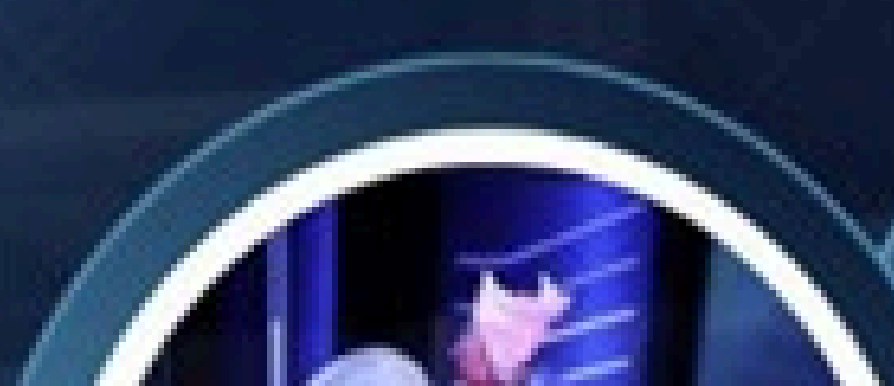
INDUSTRY, INNOVATION AND INFRASTRUCTURE



 **SATHYABAMA**
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Makerspace

- Researchers from Makerspace, Centre of Excellence for Additive Manufacturing, Sathyabama Centre for Advanced Studies successfully printed a complete 'Human Lung Model' using STRATASYS J5.
- The centre of excellence offers most cutting-edge and industry-leading 3D printing technology enable significant strides in research and in developing the future of health and other sectors.



To advance inventive technologies and redefine scientific and engineering frontiers, Sathyabama Institute of Science and Technology has invested in cutting-edge research and interdisciplinary collaboration. By addressing global challenges in energy, healthcare, environment, and technology, we aim to build a sustainable, equitable, and innovative future. Our institution consistently promotes innovation through faculty development programs, student workshops, expert lectures, outreach initiatives, and events on Intellectual Property Rights and emerging research technologies. Our incubation centre operates within the Sathyabama Research Park, spanning 22,000 sq. ft. of dedicated space for startups, research, and innovation. Accordingly, the following facilities were developed during the academic year 2023–2024.

Driving Innovation Through Startups

Sathyabama Institute of Science and Technology has built a dynamic Startup Cell that actively nurtures entrepreneurial talent among students, alumni, and faculty. Its initiatives are designed to transform ideas into viable ventures, with a strong emphasis on innovation, sustainability, and industry relevance.

During the academic year 2023-2024, our institution has established total of around 97 spin-offs in which maximum spin-offs were with institution ownership and there are also spin-offs which were not owned by the institution.

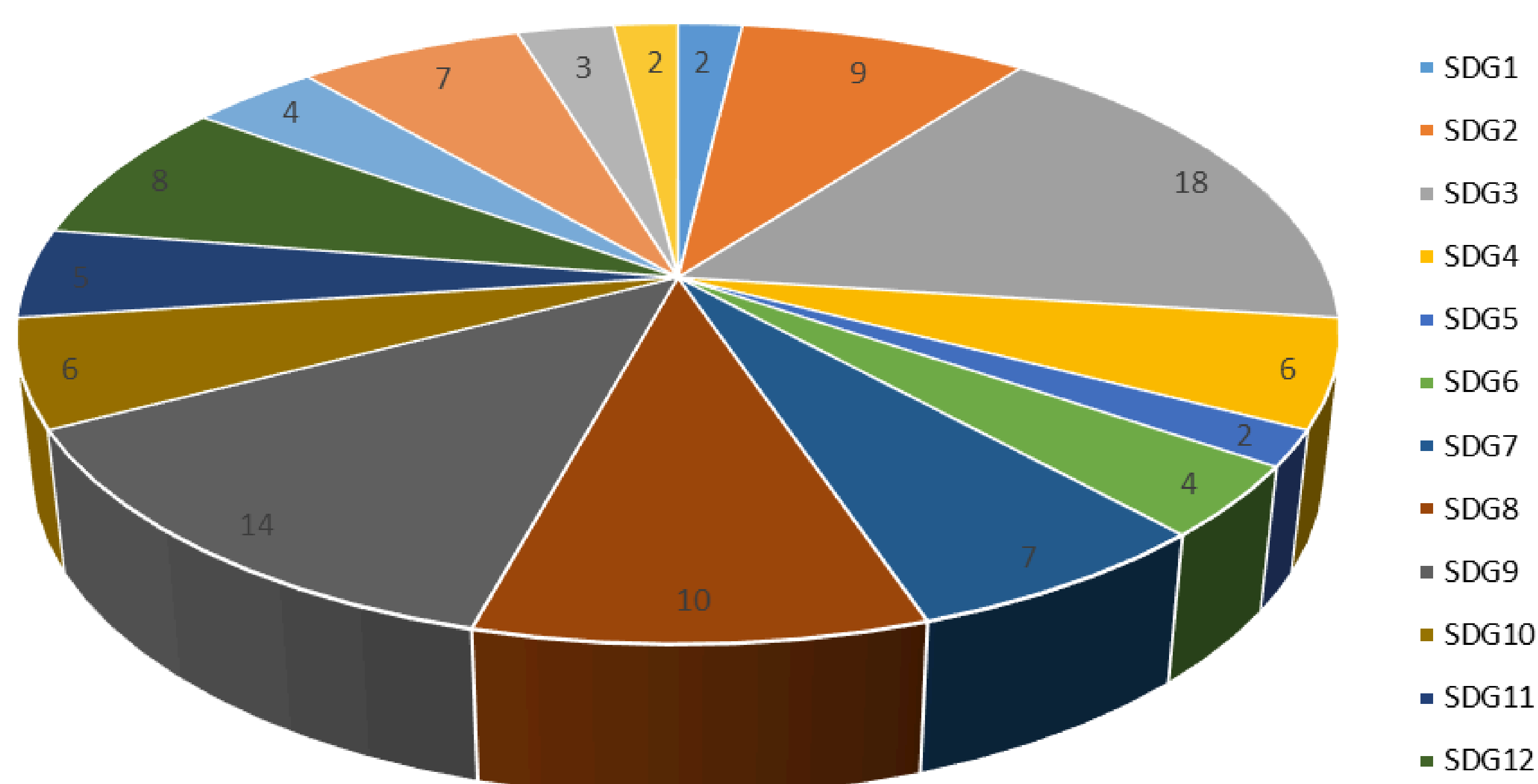
Our institution continues to foster innovation and entrepreneurship through its Technology Business Incubator (TBI), which supported numerous startups and spinoffs. Department of Science & Technology, the Sathyabama TBI is the first in India to focus on the Blue Economy, supporting ventures in marine sustainability, manufacturing, and social impact. These ventures, involving both students and faculty, span diverse domains including healthcare, aquaculture, agriculture, embedded systems, fintech, web applications, agricultural equipment, and waste management. Sathyabama TBI is acknowledged as a leading incubator in South India by Startup India, Startup TN, and DST-NSTEDB.

The Sathyabama Technology Business Incubator (TBI) conducted several events in 2023-2024, including awareness sessions on "Innovation and Entrepreneurship" and "Startup Anchor," as well as programs like the "Startup SME Growth School" and "Investor Cafe". These activities aimed to support students in developing their innovative ideas into successful startups, from ideation and skill development to attracting investment.

The TBI also has specific focus areas like the Blue Economy and Marine Bioresource Utilization, and offers support like mentorship and grants to budding entrepreneurs. To further strengthen its entrepreneurial ecosystem, the university hosted StartUp Fest 2024, providing funding and recognition to top-performing ventures. Backed by the Government of India, the Sathyabama TBI continues to serve as a hub for incubation, mentorship, and support, empowering students and faculty to transform ideas into impactful enterprises.

Centre for Innovation and Technology Transfer is a Sathyabama Innovation Council formed as a non-profit section 8 company by Sathyabama Institute of Science and Technology for fostering entrepreneurship and nurturing deep tech start-ups. It administers a business incubator which provides ‘Start to scale’ support for technology-based entrepreneurship and facilitates the conversion of research activity into entrepreneurial ventures.

Quantitative Assessment of Startups by SDG Alignment



Diverse Startup Portfolio:

- **PrEl's Biotech India Pvt Ltd:** Focused on Blue Biotechnology, developing enzyme-based solutions for oil and heavy metal pollution in water.
- **MVG Digital Consulting Pvt Ltd:** A Web 3.0 company creating educational products for children using advanced technologies.
- **Glonix Electronics Pvt Ltd:** Specializes in customized PCB board manufacturing, supporting electronics innovation.
- **Koshell Cutlery Pvt Ltd:** Innovating in sustainable consumer products, reflecting the institute's emphasis on eco-friendly ventures.

Highlights of 2023–2024 startups include:

- Smart wearable glasses for enhanced accessibility
- Organic immune boosters for aquaculture
- AI-powered agro drones for precision farming
- Autonomous spray-painting drones for industrial use
- A fintech ecosystem with “buy now, pay later” solutions
- A digital platform for educational accreditation documents
- Equipment designed to remove pesticide residues
- Biodiesel production from waste oil
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Startup Fest 2025 – Ignition: Inspire & Ideate has brought together founders, investors, and mentors from Zoho, AccelerateX Ventures, ECO HQ, Bluewind Innovations, and others, creating a collaborative platform for students to connect with real-world entrepreneurs.

DPIIT Connect 2025: Organized with StartupTN, TANSAM, and EDII, linking startups with mentors, bankers, and industry leaders for funding and legal support. The Institution Innovation Council of Sathyabama Institute of Science and Technology observed India’s Presidency of the G20 on 30 August 2023. Student participants were briefed on the significance of the G20 Summit, India’s role and presidency, its objectives, goals, and various initiatives.

Research Projects

The institution has 82 projects in which 51 new projects secured worth approximately 20 crores in the 2023-2024 period. This includes an EU-funded ERASMUS capacity-building project where Sathyabama is one of 14 coordinating institutions worldwide.

Project	PI	Funding Agency	Department	Year	Funds (Lakhs)
All India Workshop on An Awareness Workshop on Energy Management and Audit	Dr. S. D. Sundarsingh Jebaseelan (PI)	IEI - The Institution of Engineers (India), Kolkata	Electrical and Electronics Engineering	2023	0.4
Developing Future-Oriented Academic Curricula in Teacher Education with Innovative Methodologies for Nex-Gen Asian HEIs – FRACTION	Dr. Kannan N, Dr. Kalai Lakshmi TR	ERASMUS+	Management Studies	2023	58
Optimization and Life Cycle Assessment of the One Part Alkali Activator Solution for the Production of Geopolymer Composites	Dr. SivaSakthi (PI)	SERB -POWER GRANT	Centre for Waste Management	2023	26.76025
Exploring Temperature and Salinity Tolerant Mosquitoes along the Coastal Tamilnadu and Its Influence on Mosquito Borne Disease	Dr. Grace Kanmani	ICMR	Biomedical Engineering	2023	33.37356
BIRAC - BIG 22	Dr. Anima Nanda	BIRAC	Biomedical Engineering	2023	5

Competency Assessment of In-Service Community Health Officers in Public Primary Health Centre Setting in Odisha Health Policy and System Research	Ms. Ponnambily Chandy (PI), Dr. Y Swarnalatha (Co-PI)	ACCESS Health International, USA	Biomedical Engineering	2023	36.63697
Surface Modification and Nanotechnological Approaches for Antifouling Applications (Marine Biotechnological Studies (MBT))	Dr. D. Inbakandan	MoES-ESTC	Department of Atomic Energy	2019	67.99693
Studies on the Implication of Nanoparticles and Bionanocomposites on Aquatic Organisms (Marine Biotechnological Studies (MBT))	Dr. V. Karthick, Dr. Stalin Dhas T	MoES-ESTC	Department of Atomic Energy	2019	88.25368
Enhancement of Marine Microbial By Products for Biomedical Applications	Dr. L. Stanley Abraham	MoES-ESTC	Marine Biotechnological studies (MBT)	2019	59.64333
Isolation and Identification of Bioactive Compounds from Marine Sponges for White Spot Syndrome Virus (WSSV) Control	Dr.K.Govindaraju	MoES-ESTC	Marine Biotechnological studies (MBT)	2019	54.43963

Biofunctionaliza tion of Nanoparticles for Anticancer Applications Using Marine Bioresources	Dr. Ganesh kumar v	MoES-ESTC	Marine Biotechnological studies (MBT)	2019	59.22383
Exploring Fish Gut Associated Bacteria for Their Aquaculture Probiotic Properties Ministry of Earth Sciences	Dr. Gopikrishnan (PI), Dr. Radhakrishnan (Co-PI), Dr. T. Rajasekar (Co-PI), Dr. S. Kumaran (Co-PI)	Ministry of Earth Sciences	Pharmacy	2023	9.2
Bioinert Super Hydrophobic Coating A Better Alternative for Excessive Bone Overgrowth Protection (Indian Council of Medical Research, India)	Dr. Gobi Saravanan (PI), Dr. Manjunath Kamath (Co-PI)	Indian Council of Medical Research, India	Centre for Nanoscience and Nanotechnology	2023	18.5
Exploring Temperature and Salinity Tolerant Mosquitos along the Coastal Tamil Nadu and Its Influence on Mosquito Borne Disease Dynamics	Dr. Amitkumar (PI), Dr. Krupakar Parthasarathy (Co-PI), Dr. Grace Kanmani (Co-PI) - Biomedical, Dr. Bethanne Janney (Co-PI) - Biomedical	Indian Council of Medical Research, India	Biomedical Engineering	2023	97
Assessing the Conservation Priority of Freshwater Shrimps of Central Western Ghats (Association of Tropical Biology and Conservation)	Dr. Prakash (Mentor), Ms. K Kunjulakshmi (PI)	Association of Tropical Biology and Conservation	Biomedical Engineering	2023	0.8

Preclinical and Clinical Validation of Safety and Efficacy of Traditional Unani Formulation	Dr. Swarnalatha (PI), Ms. Sidhika (Co-PI), Mr. Krishnamani Kumar (Co-PI)	Central Council for Research in Unani Medicine	Biomedical Engineering	2024	41.3784
Systematic Study on Vascular Plant Rhizosphere Soil Microbiota from Arctic Ecosystem for	Dr. K. Manigundan (PI), Dr. Radhakrishnan (Co-PI)	NCPOR	Biotechnology	2024	20
Two Days National Conference on Recent Advances in Biomaterials for Medical	Dr. T. Rajasekar	DBT	Bio and Chemical Engineering	2023	1.5
National Conference on Current Trends in Marine Biotechnology from Sustainable	Dr. T. Rajasekar	MoES	Bio and Chemical Engineering	2023	1
Three Day Workshop on Primer Designing & RT PCR for Biomedical Agricultural and	Dr. T. Rajasekar	SERB	Bio and Chemical Engineering	2023	1.5
SCSP Science for Equity Empowerment and Development (SEED) Division	Dr. S. Barani, Dr. S. Poonapushpakal a, Dr. M. Subramoniam	DST	Electronics and Communication Engineering	2023	236.05264

DST STEMM	Dr. V. Vijaya Baskar, Dr. M. S. Godwin Premi, Dr. R. Narmadha, Dr. N. Mathan	DST	Electronics and Communication Engineering	2023	23.52
BRNS	Dr. V. Vijaya Baskar, Dr. E. Logashanmugam, Dr. M. S. Godwin Premi	BRNS	Electronics and Communication Engineering	2023	21.875
DST STEMM	Dr. V. Vijaya Baskar, Dr. M. S. Godwin Premi, Dr. R. Narmadha, Dr. N. Mathan	DST	Electronics and Communication Engineering	2023	21.585
Prediction and Analysis of Mesoscale Thunderstorm in India - A Computational Approach-MOES	Dr. Sardar Maran, Dr. L. Lakshmanan	MoES	Computer Science and Engineering	2023	20.73
Yukti Innovation	Dr. Sivasangari	AICTE	Computer Science and Engineering	2023	4
Effectiveness of URHAB Platform	Dr. Deepa S, Assistant Professor (PI), Dr. Priya Kumari, Assistant Professor (Co-PI)	SMART home health care solutions PVT LTD	Physiotherapy	2023	1

National Skill Development Corporation under PMKVY 4.0 -240 TARGETS	Dr. S. Radhika (PI)	Skill India-Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	Electrical and Electronics Engineering	2023	16
Mosquito Power Guard: An Innovative Solution for Safe Mosquito Control in Rural Communities	Dr. V. SenthilNayagam (PI), Dr. M. Kavitha (Co-PI)	Unnat Bharat Abhiyan (UBA) Program of MOE	Electrical and Electronics Engineering	2023	1
Solar Powered Wood Chekku Oil Machine	Dr. S. D. Sundarsingh Jebaseelan (PI), Dr. D. Godwin Immanuel (Co-PI), Dr. Ramesh Babu (Co-PI)	Unnat Bharat Abhiyan (UBA) Program of MOE	Electrical and Electronics Engineering	2023	1
Margadarshak Scheme	Dr. Sasiprbha, Dr. M. Bavanilatha, Dr. Gobi Saravanan	AICTE	Computer Science and Engineering	2023	6
Awareness on Cyber Threats and Security Measures for Online Safety among School Children	Dr. Bharathi B, Dr. Sathyabama	Government of India, Department of Science and Technology	Department of science and technology	2023	28.905
Development of Antifouling Technologies Against Green Mussel Fouling for Process Cooling Water System of MAPS	Dr. D. Inbakandan	DAE-BRNS	Department of Atomic Energy	2020	33.971
Marine Microbial Product Based Eco-Friendly Nanocomposites for Marine Antifouling	Dr. D. Inbakandan	DBT	Department of Atomic Energy	2021	60.5048

SERB Start Up Research Grant	Dr. D. Jeyapragash,	SERB	Department of Science and Technology	2022	24.5026
Development of C60-Fullerene-PDMS Based Catheter Endowed with Reduced Inflammation & Infection	Dr. V. Karthick	DAE-BRNS	Department of Atomic Energy	2022	19.371
Toxicity of Microplastics and Phthalates, as Well as Their Abundance, Distribution and Diverse in Ground Water and Surface Water from Ennore to Kovalam on the East Coast of India	Dr.P.M.Velmurugan (PI)	DST-SERB	Center for Earth and Atmospheric Sciences	2022	22.6336
Toxicity of Microplastics and Phthalates, Their Quantity, Distribution, and Causes in Groundwater and Surface Water, and Essential Preventive Measures on the East Coast of Tamil Nadu, India, from Cuddalore to Nagapattinam	Dr.P.M.Velmurugan (Co-PI)	DST-SERB	Center for Earth and Atmospheric Sciences	2023	29.9757
DST-SERB-Outreach	DST-SERB-Outreach	DST-SERB	Physics	2024	1.5
MoES-Outreach	Dr. K. Nagamani	MoES	Centre for Remote Sensing and Geoinformatics	2024	2.5

ISRO DMSP Outreach	Dr.K.Nagamani	ISRO DMSP	Centre for Remote Sensing and Geoinformatics	2023	2.47
Extramural Research Grant Scheme	Dr.K.Nagamani	CSIR	Centre for Remote Sensing and Geoinformatics	2021	21.25
Scaleup Incubator MSME, Govt. of Tamil Nadu	Dr. B. Sheela Rani, Mr. R. Praveen	STARTUP - TN	Electronics and Communication Engineering	2023-2024	5
Multicentric Validation of Phage Lysin in Comparison with MGIT PANTA to Control Normal Flora in Processed Sputum Specimens for Rapid Detection of Mycobacterium Tuberculosis Using BAC'I'EC MGIT 960 System ICMR NIRT	Dr. Krupakar Parthasarathy	ICMR NIRT	Centre for Drug Discovery and Development	2023	15
ICMR DHR Sponsored Workshop Hands on Training & Workshop on Flowcytometry and Cell Sorting for Clinical and Translational Research Applications ICMR DHR	Dr. Krupakar Parthasarathy	ICMR DHR	Centre for Drug Discovery and Development	2023	0.2

Elucidating the Offset Effects of Tribles Gene Using Zebrafish as Excellent In Vivo Models in Treating Acute Myeloid Leukemia (ASEAN-India Science & Technology Development Fund(AISTDF))	Dr. T. Rajasekar (Mentor), Mr. Maheswaran Solayappan (AIMST University Malaysia)	ASEAN-India Science & Technology Development Fund(AISTDF)	Chemical	2024	2.7
Chasing Corallimorphari n Sea Anemone Infestation in the Coral Reefs of Lakshadweep Archipelago (The Habitat Trust)	Dr. S. Prakash, Dr. Amit Kumar	The Habitat Trust	Ocean Resesearch	2023	3
Venom Proteins from Sting Rays: Unraveling Anti-Proliferative Potential Against Breast Cancer MOES	Dr. S. Prakash (PI), Dr. Amit Kumar(Co-PI), Dr. Madan Kumar (Co-PI)	MOES	Ocean Resesearch	2024	62.40528
Development and Fabrication of Advanced Electrodes Architectures for Efficient Hydrogen Production Using Solid Oxide Electrolysis Cells (DST-	Dr. Ajith Kumar(PI), Dr. P. Kuppusami(Co-PI), Dr. Gopika G (Co-PI)	DST-SERB	Ocean Resesearch	2023	20.85

Cspbbr3 Perovskite/ Transition Metal Di-Chalcogenides(Tmdcs) Based Composite Solar Cell for Enhanced Power Conversion Efficiency (SERB)	Dr. Gopika G	DST-SERB	Center for Nanoscience and Nanotechnology	2022	18.3
Development of 1T Transition Metal Di-Chalcogenides Based Heterostructures for Efficient Hydrogen Evolution Reaction (UGC-DAE)	Dr. Gopika G (Co-PI), Dr. P. Vengatesh	UGC-DAE	Center for Nanoscience and Nanotechnology	2023	1.35
Investigations on Rare Earth Doped Oxide Color Tunable Phosphors for White Light Emitting Diode Applications (UGC)	Dr. D. Balaji(PI), Dr. Shyju T S (Co-PI), Dr. P. Kuppusami	UGC -DAE-CSR	Chemistry	2024	1.8
Biofilm Engineering Methods for Enhancing the	Dr. Sathish Kumar R	DST	Chemistry	2024	26.55899
Corrosion and Wear Resistant Behavior of Compositionally Graded NiCrYSZ Nanocomposite Coatings for Nuclear Waste Processing Applications (CSIR ASPIRE)	Dr. Dharani (PI), Dr. Kuppusami (Co-PI), Dr. S. Anandh Jesuraj (Co-PI)	CSIR ASPIRE	Center for Nanoscience and Nanotechnology	2024	26.66832

Awareness on Cyber Threats and Security Measures for Online Safety among School Children (Ministry of Science and Technology (NCSTC))	Dr. Bharathi CSE (PI), Dr. Sathyabama CSE (Co-PI)	Ministry of Science and Technology (NCSTC)	Computer Science and Engineering	2024	28.905
Margdarshan Scheme- Serving as Mentor Institute in Order to Improve the Quality of Technical Education in Mentee Beneficiary Institutions (AICTE)	Dr. T. Sasipraba (Chief Co-ordinator), Dr. Gobi Saravanan (Co-Ordinator), Dr. Bavanilatha (Co-Ordinator) Dept of Biotech	AICTE	Computer Science and Engineering	2024	6
Highly Durability and Flexible Polymeric Nanocomposite for EMI Shielding (BRNS)	Dr. Sanjeev Prasath (PI)	BRNS	Centre for Nanoscience and Nanotechnology	2024	33
Sustained Release of Chrysin and Cerium Oxide Ions from 3D Printed Scaffolds for Prevention of Relapse and Bone Regeneration at Cancer Excision Site and Combinatorial Effect of High Energy Radiation	Dr. Manjunath Kamath (PI), Dr. Subha Krishna Rao (Co-PI)	UGC-DAE-CSR	Centre for Nanoscience and Nanotechnology	2024	1.8
Investigation of the Temperature-Dependent Electrical Properties and Structural Characteristics of Ionic Liquid Mediated Solid Polymer Electrolyte for Sodium Ion Battery	Dr. Sony (PI), Dr. S. Preethi (Co-PI)	UGC-DAE-CSR	Physics	2024	1.95

Development of Magneto-Elastomer for EMI Shielding by Synthesizing Nano-Magnetite from Iron Ore Tailings and Graphite Concentrate from Low Grade Graphite Ore	Dr. Chennakesavelu (PI) - Dept of Chemistry, Dr. Ramanjaneya Reddy Gontu (Co-PI)	UGC-DAE-CSR	Chemistry	2024	1.95
Genotypic Diversity of Microbial Flora in OXIS Contacts of Primary Motors- A Preliminary Exploratory Study	Dr. Sumaiyya S (PI) - Dept of Periodontics, Dental, Dr. Thirugnanasambandam (Co-PI) Dept of Periodontics, Dental, Dr. Vishnu Rekha (Co-PI) Dept of Periodontics, Dental, Dr. Dhanraj Kalaivanan (Co-PI) Dept of Periodontics, Dental, Dr. Muthu Murugan (Co-PI) - Sri Ramachandra Institute of Higher Education and Research	ICMR	Dental	2024	32.76511
Innovation, Design, and Entrepreneurship (IDE) Boot Camps	Dr. T. Sasipraba (Nodal Head), Dr. Bharathi (Co-Ordinator) CSE	Ministry of Education's Innovation Cell & AICTE	Computer Science and Engineering	2024	13.19
Development of DMAZ Fuel That Is Hypergolic with Hydrogen Peroxide	Dr. Subhenjit Hazra (PI), Dr. Kuppusami (Co-PI), Dr. Ajith Kumar (Co-PI)	ISRO	Centre for Nanoscience and Nanotechnology	2023	16.8366
Generation of TTT and CCT Diagrams for 3 Nickel Base Superalloys (XH67, XH55 and XH43) for Application in Liquid Engines	Dr. Dinesh Kumar (PI), Dr. Kuppusami (Co-PI), Dr. Kamalan Kirubakaran (Co-PI)	LPSC/ISRO	Centre for Nanoscience and Nanotechnology	2023	19.0028

Prediction and Analysis of Mesoscale Thunderstorm in India-A Computational Approach	Dr. P. Sardar Maran (PI) - CSE, Dr. Lakshmanan (Co-PI) - CSE	MoEs	Computer Science and Engineering	2023	20.7328
Assessing the Conservation Priorities of Freshwater Shrimps of Western Ghats, India	Dr. Prakash (Mentor), Ms. K Kunjulakshmi (PI)	The Rufford Foundation, UK	Climate change	2023	5.8
Development of Novel Biofilm Detecting Sensor for Oil and Gas Pipelines	Dr. Sudha Uthaman (PI)	SERB -POWER GRANT	Centre for Nanoscience and Nanotechnology	2024	27.676
Development of Novel Copper Sulfide-Based Heterostructure Nanocomposite for High-Performance Thermoelectric Device Application	Dr. M. Rajasekar (PI), Dr. Murugadoss (Co-PI)	UGC-DAE CSR	Centre for Nanoscience and Nanotechnology	2023	15
Real-Time Plasma Localization System for Tokamak Plasma Images in SST-1	Dr. Vijayabaskar (PI) CSE, Dr. Logashanmugam (Co-PI) - ECE, Dr. Godwin Premi (Co-PI) - ECE	BRNS	Electronics and Communication Engineering	2023	24.5625
Smart Projector	Dr. Vijayabaskar (PI) - CSE	EDII- IVP	Electronics and Communication Engineering	2023	2.45

Media Treated Seedlings for Spoilage-Free Farming	Dr. Sudha (PI)	EDII- IVP	Centre for Nanoscience and Nanotechnology	2023	2.19
Ozonizer for Removal of Pesticides on Vegetables and Fruits	Dr. Chennakesavelu (PI)	EDII- IVP	Chemistry	2023	2.55
Smart Stick for Elders	Dr. Vigneshwari (PI)	EDII- IVP	Computer Science and Engineering	2023	2.47
Real-Time Facemask Detection on Convolution Neural Network	Dr. Godwin Premi (Mentor) - ECE, Dr. Nay Kyi Tun (Myanmar)	FICCI	Electronics and Communication Engineering	2024	4.15
Traffic Sign Recognition System Using Convolutional Neural Network	Dr. Godwin Premi (Mentor) - ECE, Dr. Kay Thinzar Phu (Myanmar)	FICCI	Electronics and Communication Engineering	2023	4.15
Tomato and Potato Plant Disease Recognition and Classification Using Convolutional Neural Network	Dr. Godwin Premi (Mentor) - ECE, Dr. Soe Paing (Myanmar)	FICCI	Electronics and Communication Engineering	2023	4.15
Evaluation of the T Lymphocyte Response in Breast Cancer	Dr. Manjunath (Mentor), Mr. Djimenan Boilengar (Chad)	FICCI-CV Raman Fellowship	Centre for Nanoscience and Nanotechnology	2023	1.65

Evaluation of the Anticancer Activity and the Anti-Metastasis Mechanism of Action in Vitro and In Vivo of Tetrapleura Tetrapleura Fruits Crude Extract	Dr. T. Rajasekar (Mentor), Mr. Idrios Bonsou (Cameroon)	DBT UNESCO TWAS	Centre for Nanoscience and Nanotechnology	2023	4.292
Diversity and Distribution Actino Bacteria in Arctic During Polar Nights and Their Adaptation Properties	Dr. Radhakrishnan (PI), Dr. Gopikrishnan (Co-PI)	NCPOR	Centre for Nanoscience and Nanotechnology	2023	20
Creating Awareness on Extended Technologies- Artificial Intelligence, Augmented Reality and Virtual Reality	Dr. Godwin Premi (PI) - ECE, Dr. Vijayabaskar (Co-PI) - CSE, Dr. S. Karthikeyan (Co-PI) - ECE, Dr. R. Narmadha (Co-PI) - Mechatronics, Dr. Susitra (Co-PI) - EEE, Dr. Anderson (Co-PI) - Aero, Dr. Magalaon Leo (Co-PI) - ECE	DST-NCSTC	Electronics and Communication Engineering	2023	24.58
Fundamental Research Grants Scheme	Dr. Manjunath Kamath (PI)	Ministry of Education, Malaysia	Centre for Nanoscience and Nanotechnology	2023	32
Mutational and Functional Analysis of Nucleocapsid(N) Protein of SARS CoV-2 and Its Variants in the Formation of Virus Like Particles (VLPs)	Dr. Krupakar Parthasarathy (Mentor), Ms. Sudhanarayani Rao	UGC- SJSGC	Centre for Drug Discovery and Development	2023	26.48

Total amount generated from consultancy and corporate training year wise during the year (INR in lakhs)			
Name of the consultant	Name of consultancy project	Consulting/Sponsoring agency with contact details	Revenue generated (INR in Lakhs)
Dr.A.Mary Posonia.Dr.B.Bharathi,Dr.D.Usha Nandini,Dr.B.Ankayarkanni	Excelr	Excelr Edtech Pvt Ltd	0.99
Dr.K.Ashokkumar, Dr..S.Prince Mary , Dr.A.Yovan Felix	Smart Bridge Pvt Ltd	Smart Bridge Pvt Ltd	0.55
Dr.K.Ashokkumar, Dr.J.Albert mayan	Cognibot Robotics	Cognibot Robotics	1.19
Dr.L.Lakshmanan, Dr.K.Ashokkumar, Dr.J.Albert mayan	Macincode Technologies	Macincode Technologies	2.03
Dr.Usha Nandhini, Dr.Mary Posonia	SmartBridge Educational Service Pvt Ltd.	SmartBridge Educational Service Pvt Ltd.	1.05
Dr.Prince mary, Dr.Ramya Franklin	Cognibot Robotics Pvt Ltd	Cognibot Robotics Pvt Ltd	1
Dr.Gomathi 2. Dr.Prince mary 2. Dr. J. Albert Mayan 3. Dr.Cruz Antony 4. Dr.Ramya Frnklin 5.Ms.D.Deepa, 6.Mr.R.Vignesh	Cognibot Robotics	Cognibot Robotics	1
Dr. K. Ashokkumar Dr. L. Lakshmanan Dr. J. Albert Mayan	Algox Fusion	Algox Fusion	2.35
Dr.Vigneshwari Dr.Veena Dr.R.Sathyabama	Credo Systemz	Credo Systemz	1.95
Dr.Sivasangari Dr.Ajitha Dr.Sathyabama Dr.Rajasekar	Futuro Focus Pvt Ltd	Futuro Focus Pvt Ltd	0.58
Dr.K.Ashokkumar, Dr.J.Albert mayan.Dr.Dhamodaran	Excel R	Excel R	0.83
Dr A.sivasangati	Iview sense technology	Iview sense technology	0.5
Dr. L. Stanley Abraham	Bioefficacy of EM Solution	Kanishka Imports and Exports	1.54

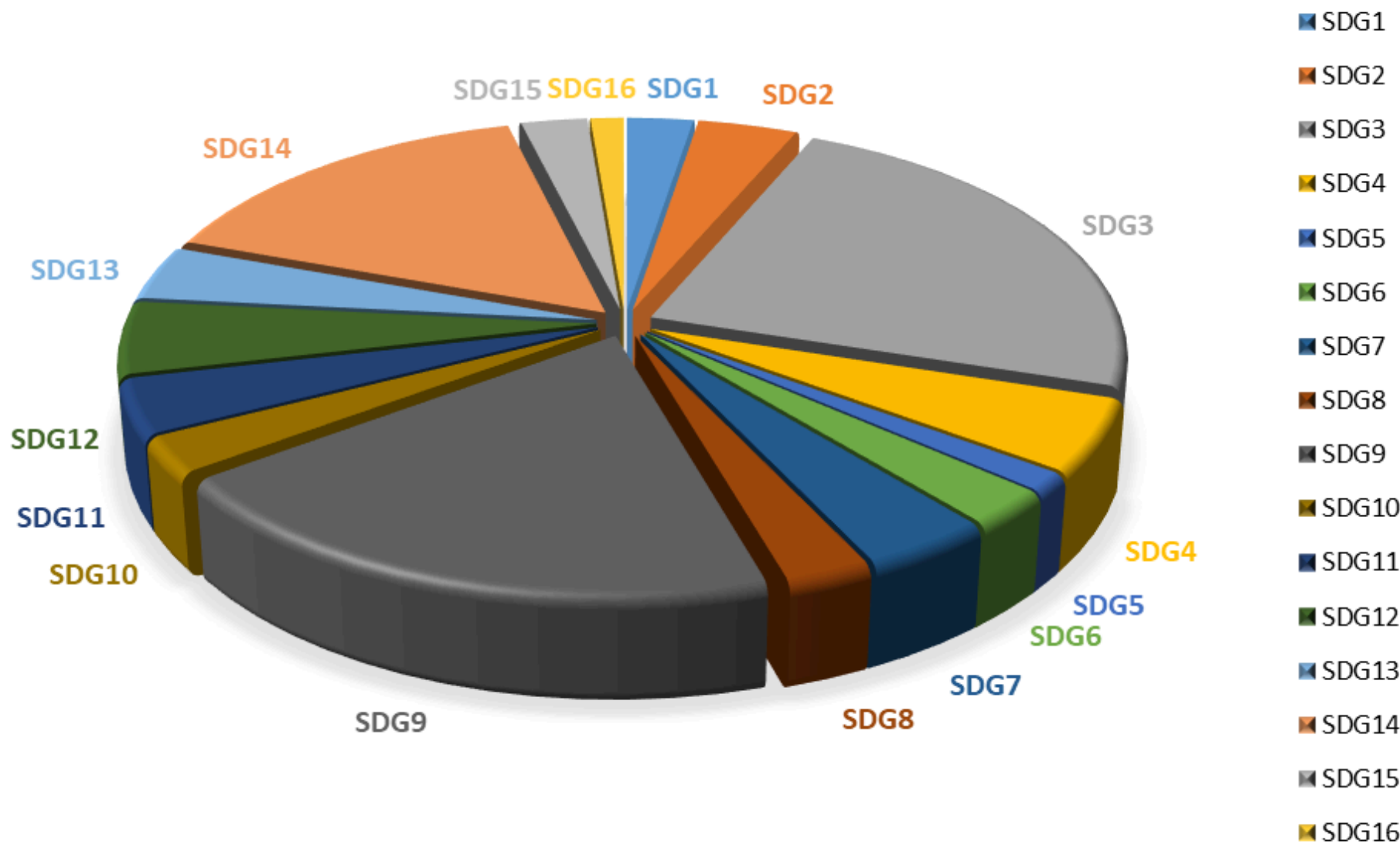
Dr. V. Karthick	Plant-based edible scaffolds microcarriers and assess its biocompatibility on primary muscle progenitor cultures of fish for meat production	Umami Bioworks	2.20011
Dr.K.Govindaraju	Enzymatic inhibition assay and in vitro studies for the test product GLUBLOC	My Pura Vida Wellness Pvt Ltd	0.59
NRSC-ISRO	NRSC-LDS Sathyabama station	National Remote Sensing Centre, Balannagar, Hyderabad, Telangana	1
Geospatial and Marine Consulting Services, Madurai	Creating a Digital Database of Arizona City in the US using Remote sensing and GIS	Geospatial and Marine Consulting Services, Madurai	1.5
Shiva Prema Industries	Skill Development Program on New Product and Rapid Prototyping using 3D printers		0.096
Think-In Lab	Proto Cafe (Internship on Innovation and Product development)		0.366
MSME	MSME-EDP Program for Startups & MSMEs		0.12
Dr. Radhakrishnan	COPD Bio marker Discovery	Medway Institute of Pulmonology, Chennai	3
Dr. Radhakrishnan	Molecular cloning of Industrially Important	PrELs Biotech	1

Dr.Krupakar Parthasarathy	Flowcytometry for Diagnostics	VivagenDx Labs	2
Er. Vanjinathan	Third party Inspection & Municipality Consultancy- Civil	Nagarpura Salai Mempattu Thittam, NSMT	39.17068
Dr. Viswanathan	Elemental Compositional Analysis	ZF Commercial Vehicle Control System India Limited (Formerly Known as WABCO INDIA LIMITED) Plant III,Unit I,Plot No.A, A8,Central Avenue,Auto Ancillary-SEZ ,Mahindra World City,Chengalpet,Kanchipuram Dt., PIN 603 002,India.Phone:91-44- 47442000,30901200.Fax:044- 47490006	0.97704
Dr. Viswanathan	Elemental Compositional Analysis	ZF Commercial Vehicle Control System India Limited (Formerly Known as WABCO INDIA LIMITED) Plant III,Unit I,Plot No.A, A8,Central Avenue,Auto Ancillary-SEZ ,Mahindra World City,Chengalpet,Kanchipuram Dt., PIN 603 002,India.Phone:91-44- 47442000,30901200.Fax:044- 47490006	0.25
Dr. Viswanathan	Elemental Compositional Analysis	Metallurgical Testing Services Porur Chennai 600116 . Phone: +91 44 24765675, +91 44 48636661 GSM : +91 73977 98474 E Mail : info@mts-india.in Website: Metallurgical Testing Services (MTS)	1.1
Dr. Viswanathan	Elemental Compositional Analysis	GLR Labs	4.4

Dr. Viswanathan	Elemental Compositional Analysis	Kemin Industries South Asia Pvt Ltd	0.136
cSoftTechmologies Private Ltd	Automation of API Testing	cSoftTechmologies Private Ltd	0.1
Hackwit Technologies Pvt Ltd	Pro-Tutor	Hackwit Technologies Pvt Ltd	1.5

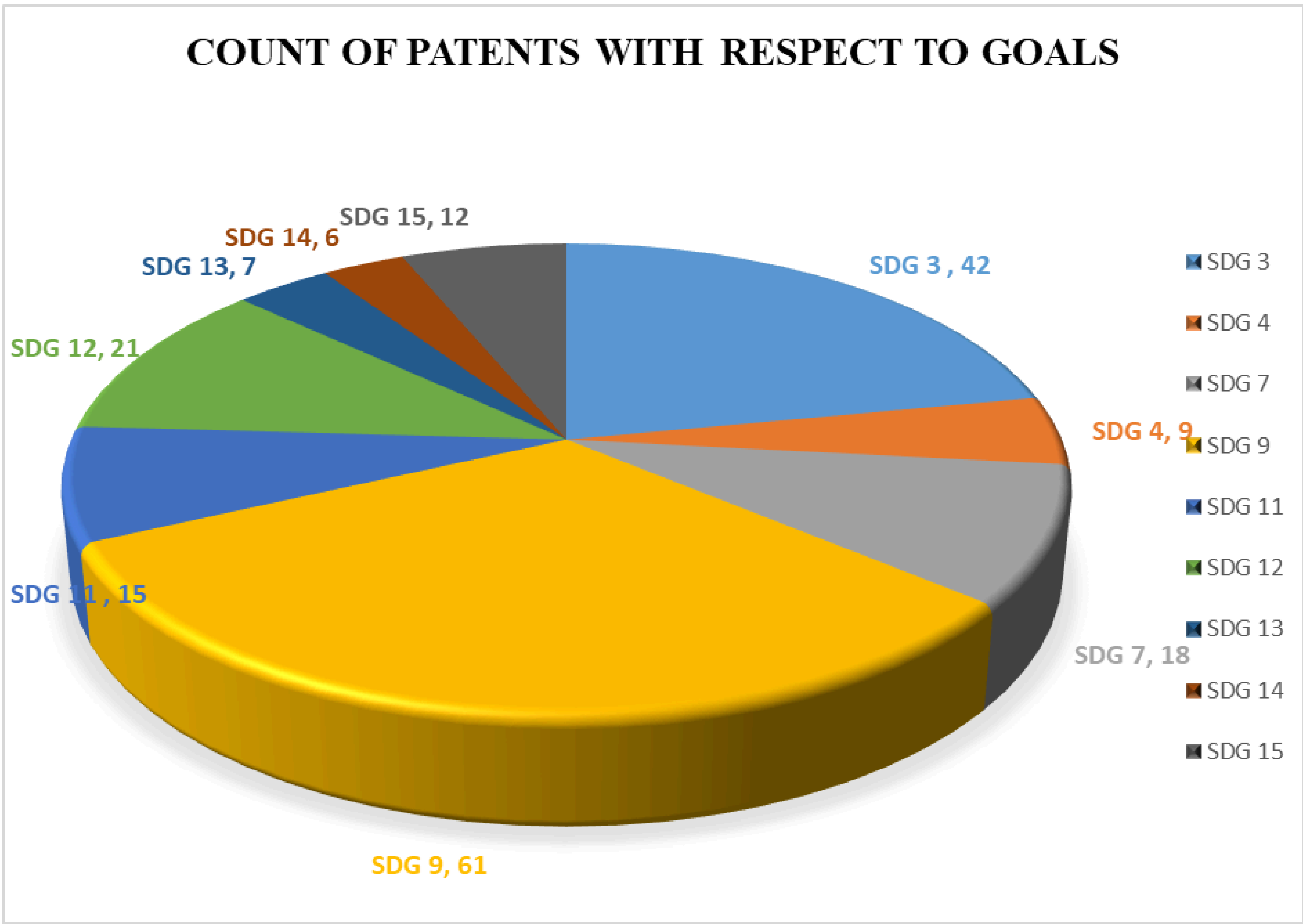
Total Research Income (in INR)	192333783
Research income from industry and commerce by subject area (in INR): STEM	115866174
Research income from industry and commerce by subject area (in INR): Medicine	59544633
Research income from industry and commerce by subject area (in INR): Arts & Humanities/ Social Sciences	8516025

CONTRIBUTION TO DIFFERENT GOALS THROUGH
RESEARCH AND CONSULTANCY



Research Patents

Sathyabama advanced around 237 patents during the assessment year spanning mobility, assistive health technologies, smart infrastructure, clean water, advanced materials, and sustainable energy. Below are standout filings and grants with the key impact they enable.



Industry-Academia MoU

Sathyabama has signed a total of 70 Memoranda of Understanding (MoUs) during the academic year 2023-2024 to foster technology transfer, skill development, and research.

Name of the institution/ industry/ corporate house

- ExcelR solutions
- Multi Dimensional Technologies(OPC) Pvt Ltd
- Oracle Corporation
- Space Zone India
- FABC (First Academy of Blockchain Council),Dubai
- Hackwit
- UOW Malaysia KDU Penang University College Sdn Bhd
- Vasinev Gaming Solutions private limited
- Mobile Tutor Pvt. Ltd
- Epical Layout Pvt. Ltd
- TIAS Energy PVT LTD



SDG 9 - INDUSTRY, INNOVATION AND INFRASTRUCTURE



TRANSUN Energy india PVT LTD

- **DG Vaishnav College**
- **Lead Consultancy Engineering Services India Pvt.Ltd**
- **Infinity PMC Solutions Pvt. Ltd**
- **Techapps Consulting, Chennai**
- **Apparel,Made-ups & home furnishing sector skill council, Tirupur, India**
- **Kidzee preschool, sithalapaakam**
- **New hope and New life orphanage, perumbaakam**
- **kidzee preschool, Perumbaakam**
- **Kirubai old age home, Perumbaakam**
- **Incare lab and cannarma private limited**
- **Hemp engineering**
- **Cheeba cannabis academy**
- **Hiyoshi India Ecologicals Pvt. Ltd**
- **Space Zee technology**
- **Gulf Medical University**
- **Surana & Surana**
- **Selvam & Selvam**
- **Indian Community Welfare Organization**
- **Legal Rights and Consumer Protection Organization**
- **Dr.Kalaingar M.Karunanidhi Government Institute for Post Graduate Studies & Research**
- **National Remote Sensing Centre, ISRO, Dept of Space, Atmospheric Science Division**
- **Mongolian University of Science and Technology, Mongolia**
- **Tamil Nadu Startup and Innovation Mission**
- **Hosur Industries Association**
- **Hosur Micro Industrial Association**
- **Ticel Bio Park**
- **Double Loop Advisory PVT LTD**
- **Vel tech TBI**
- **Cultiv8 ,Coimbatore**
- **Connect 2 Investors**
- **CSIR - NEERI, Nagpur**
- **Medway Hospital, Chennai**
- **Copperbelt University, Kitwe, Zambia**
- **Avyukth Cow Products**
- **AATSEA, Thailand**

- KMITL, Thailand
- Biopol Bioscience Pvt. Ltd., Bengaluru, India
- Ramakrishna Medical Centre LLP, Trichy, Tamil Nadu
- AVN Ayurveda Formulations, Madurai, Tamil Nadu
- Ayya Nadar Janaki Ammal College, Sivakasi, Tamil Nadu
- Central Institue of Brackishwater Aquaculture, Chennai
- Neelithal Aqua Farms Ltd.
- AAARNA Therapeutics and Vaxigen International Research Centre Private Limited
- Federal state autonomous educational institution of higher education, Volgogard State University
- Orcci Eco Products
- Transilvania University of Brasov, Romania
- University Technology Malaysia (UTM), Malaysia
- Nottingham Trent University , UK
- MAHSA University, Malaysia
- Cukurova University, Turkey
- University Malaysia Pahang(UMP), Malaysia
- University Putra Malaysia(UPM), Malaysia
- Universiti Teknologi Mara (UiTM), Malaysia
- LeTourneau University, USA
- Powiśłański University, Poland
- STIKI Malang, Indonesia
- Masha University
- Manipal University
- Universiti Technology Malaysia

In continuation to our MoU with Medway Hospital, our Centre of Excellence for Additive Manufacturing have printed a complete ‘Human Lung Model’ for COPD using the CT lung scan with our 3D printers at the Makerspace Lab, Sathyabama Centre for Advanced Studies.



Centre of Excellence for Drones and UAVs has been established by the Department of Aeronautical Engineering, in collaboration with our MoU partner Jet Aerospace Aviation. The Research Centre was formally inaugurated on 7 August 2023.





SDG 9 - INDUSTRY, INNOVATION AND INFRASTRUCTURE



Industry–Institute Interaction Cell (IIIC)

Ongoing collaboration between industry and academia is vital for preparing graduates to meet real-world expectations. To strengthen this relationship, Our Institution has established the Industry–Institute Interaction Cell (IIIC). The Cell provides a dynamic platform for students and faculty to understand industry needs, explore emerging technologies, and adopt best practices. Through IIIC, industry experts actively contribute to curriculum design and career development programs, ensuring students acquire relevant skills. Faculty members also gain valuable industrial exposure, enriching the teaching–learning process and enhancing the institution’s standing in the global knowledge index. Beyond academics, students participate in national and international industry-related contests, consistently earning recognition in hackathons and coding competitions, further demonstrating the university’s commitment to nurturing innovation and excellence.

<https://www.sathyabama.ac.in/placements/Industry-Relations>

Sathyabama has signed several MOUs with numerous industries for the purpose of enriching the Quality of Education imparted to students. Some of the notable Industrial accreditations / MOUs signed with are:

◆ Infosys	◆ Cognizant Technology Solutions
◆ Wipro Technologies	◆ HCL
◆ QMax Test Equipments Pvt. Ltd	◆ Capgemini
◆ Accenture	◆ Control Techniques India Pvt. Ltd
◆ Biozone	◆ Virtusa
◆ ServiceNow	◆ ICT Academy

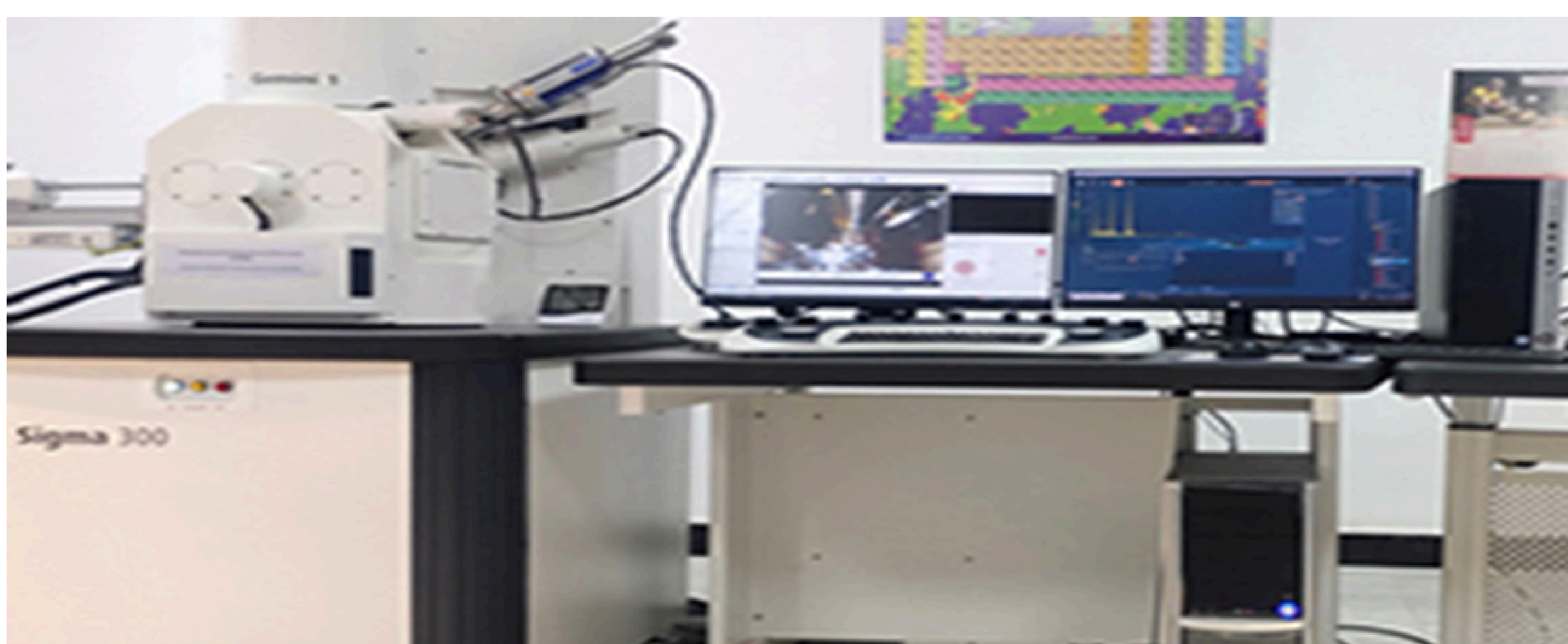
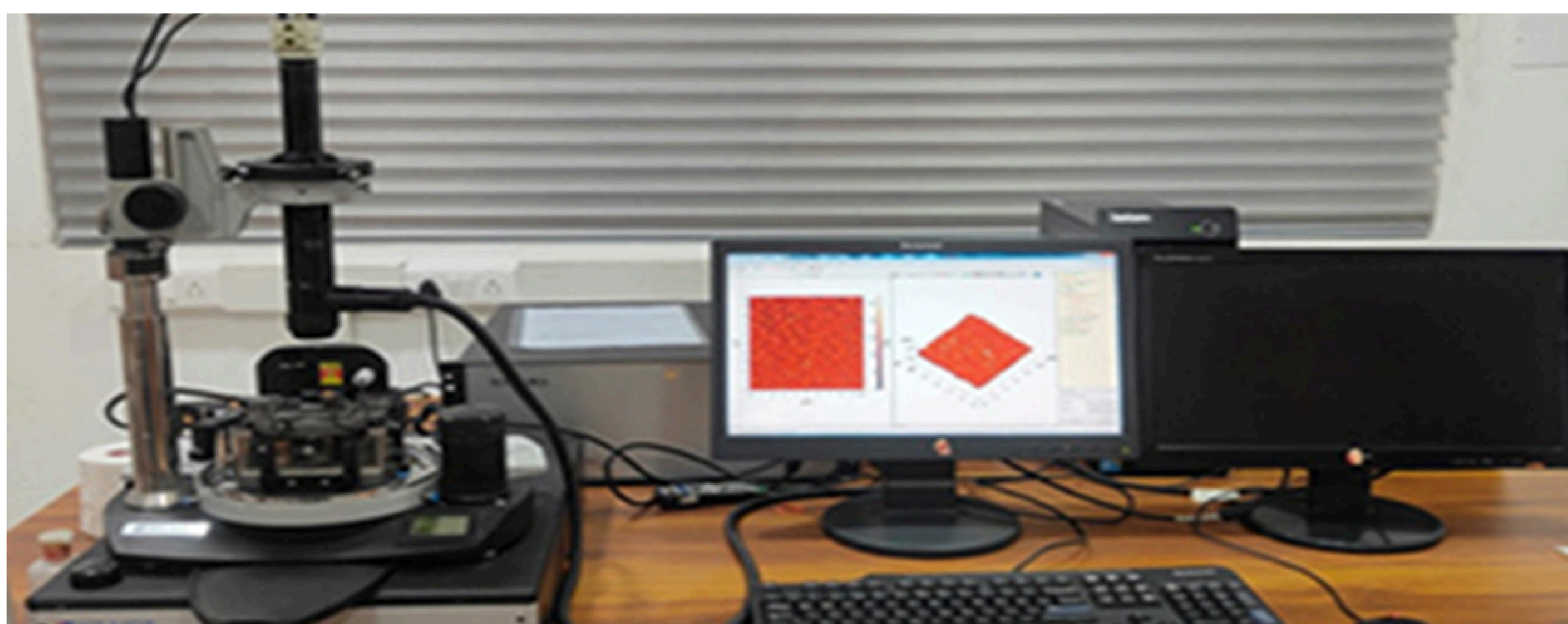
Infrastructure and Facilities Established

The National Facility for Coastal and Marine Research (NFCMR) has been established at Sathyabama Institute of Science and Technology. It is a world class research infrastructure and received the National Tag from the Ministry of Earth Sciences, Government of India, first of its kind facility for nurturing blue biotechnology research in the country and fostering interdisciplinary collaboration. Dr. M. Ravichandran, Hon'ble Secretary of MoES, declared it a national facility by signing an MoU and exchanging it with our Hon'ble Chancellor. This facility is equipped with an array of specialized laboratories like Bio Visualization Lab, Marine Metabolic Engineering Lab, Cellular Agriculture Lab, Molecular Imaging Hub, Mass Spectrometry Labs (GC-MS/MS and LC-MS/MS), Water Quality Analysis Lab, Toxicology Lab, Underwater Monitoring Lab, Next Generation Sequencing Hub, and Microbiome Lab required for advanced research in marine science and biotechnology.



Livelihood and Skill Development Facility is also established to conduct training programs for local communities on marine resource management and sustainable livelihoods Applied Phycology Lab, Halophytes Conservation Lab, and Biomolecules Separation Lab were established in the Centre for Ocean Research to upscale the Blue biotechnology research. Downstream Processing Facility is created for the production of algal-based natural products Advanced GeoEnvironmental Lab was set up in the Centre for Earth and Atmospheric Sciences (CEAS) Molecular Theranostics lab has been set up in the Centre for Laboratory Animal Technology and Research to help the researchers to perform genomic expression studies to make artificial tissues or scaffolds and organoid models which helps in Regenerative Medicine

Sathyabama Institute of Science and Technology became the first institution in India to install the Nikon Super Resolution Confocal Microscope (AXR with NSPARC technology) and the Flow Cytometry Research Facility (CytoFLEX – Beckman Coulter). The facilities were inaugurated on 27 June 2024 at the Centre for Molecular and Nanomedical Sciences, International Research Centre.



MAKERSPACE (Centre of Excellence for Additive Manufacturing by Stratasys, India)

Sathyabama Institute of Science and Technology in Chennai has a dedicated Makerspace, a state-of-the-art facility accredited as a "Centre of Excellence for Additive Manufacturing" by Stratasys, India which focuses on 3D printing and related technologies. This facility is used for student innovation, research, and industrial support. The centre supports research in various fields, including a project on "Superhydrophobic Coated 3D Printed Temporary Implants" with funding from the Department of Science and Technology (DST), Govt. of India. Students have also used 3D printing for academic projects like designing a bionic arm and re-modelling a customized tooth cap.



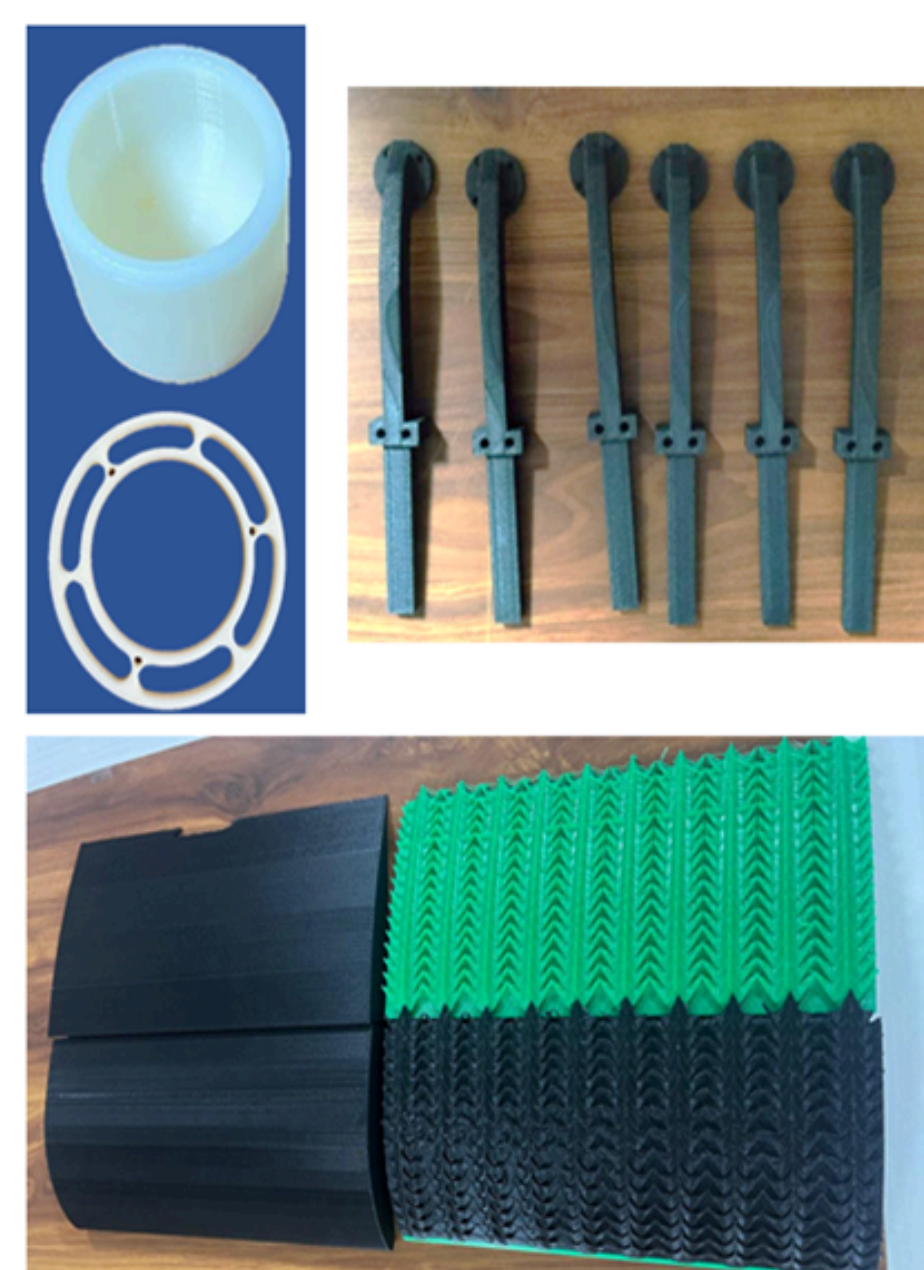
The Makerspace provides consultancy services to students, faculties, researchers, and industries for their 3D designs and printing needs. They also provide internship opportunities. Sathyabama frequently organizes workshops and value-added courses on 3D printing and additive manufacturing for students, faculty, and industry professionals. These programs offer hands-on experience in areas like 3D part design, fracture analysis, and the application of 3D printing in various industries.

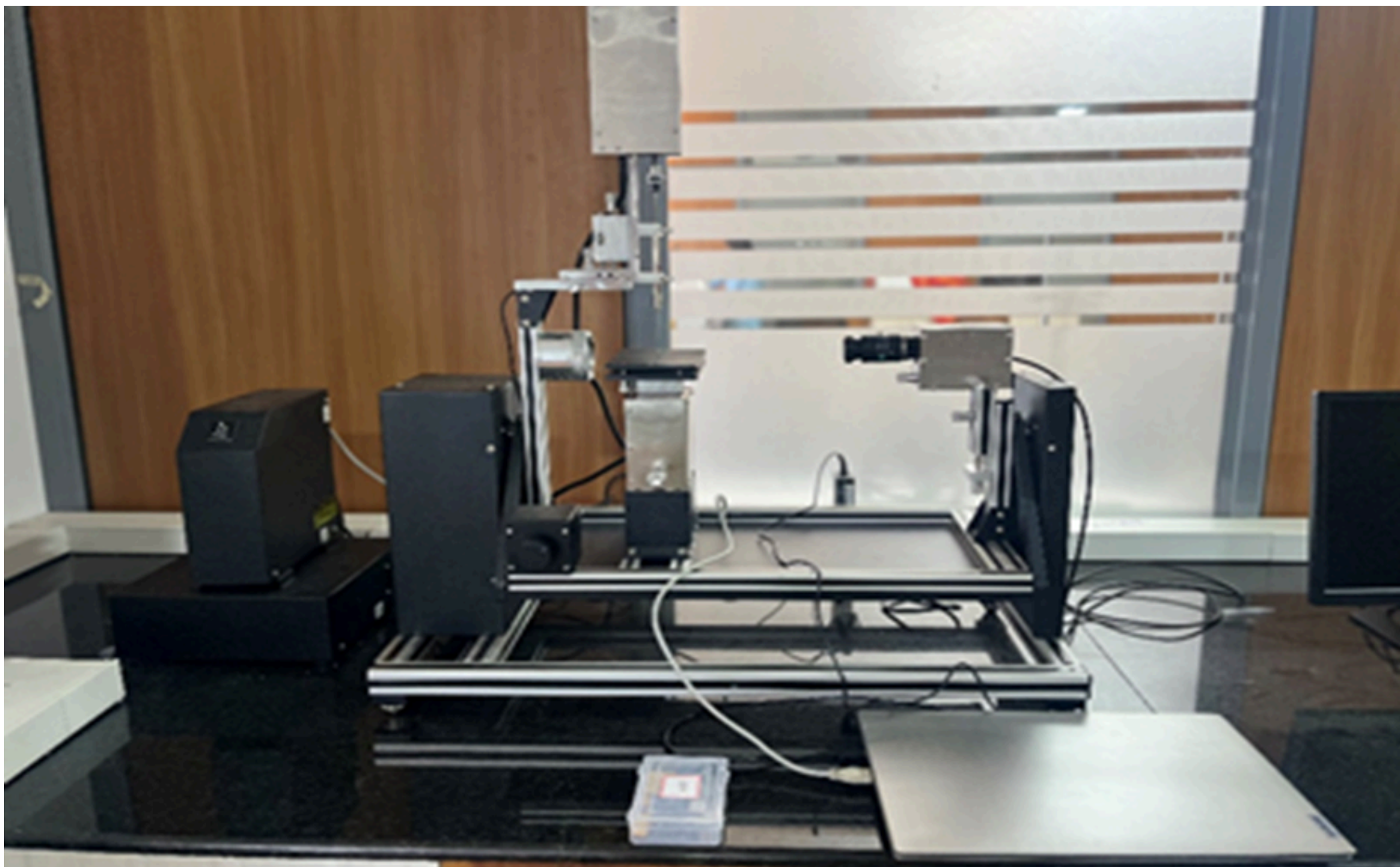


Stratasys Dentajet J5 printer



Stratasys F370 printer





Innovation with Blue Light Technology



Polyga Desktop S1 scanner



Polyga Handheld H3 scanner

Advanced Prototyping lab – 3D Printing Lab

