

GOAL 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

SDG 9 TARGETS ADDRESSED IN THIS REPORT



Quality, reliable, sustainable and resilient infrastructure



Inclusive and sustainable industrialization



Access of small-scale enterprises to financial services



Upgraded infrastructure and clean, efficient industries



Enhanced scientific research and technological capabilities



Sustainable infrastructure in developing countries



Domestic technology development, research and innovation



Universal and affordable access to ICT

Sathyabama Institute of Science and Technology
(Deemed to be University), Chennai, Tamil Nadu, India

Sathyabama Sustainable Development Report 2024–25

SDG 9 – Industry, Innovation and Infrastructure

Sathyabama Institute of Science and Technology (Deemed to be University), Chennai, Tamil Nadu, India

The institution provides a structured pathway across the entire innovation lifecycle—from ideation and fundamental research to patenting, prototyping, incubation, scaling, and market deployment—through integrated platforms such as the Startup Cell, Technology Business Incubator (TBI), Sathyabama Innovation Council (SIC), and the Institution's Innovation Council (IIC).

A total of 107 startups have been on boarded, showcasing strong entrepreneurial engagement and innovation-driven learning. A total funding of ₹7 crore has been sanctioned and allocated towards industry-sponsored projects. In addition, the institution has provided funding support to student startups. Startups associated with the institution have also secured grants from the Entrepreneurship Development and Innovation Institute, NIDHI PRAYAS, Startup India Seed Fund, and the MSME Idea Hackathon.

1. **Infrastructure:** Sathyabama Technology Business Incubator (TBI) operates from the Sathyabama Research Park, with **22,000 sq. ft. of dedicated incubation infrastructure**, including workspaces, a makerspace, an advanced prototyping laboratory, a bioproducts laboratory, meeting rooms and a TIFAC Academic Partner (TAP) Centre. **Technology Business Incubator (TBI):** Supported by the Department of Science and Technology's NSTEDB, TBI promotes entrepreneurship in the Blue Economy, manufacturing, engineering, IT and marine bioresource utilisation, with mentoring, startup grants and investor networking opportunities.

2. **Startup Cell and Pre-incubation:** The university's Startup Cell works in coordination with the Institution's Innovation Council to support ideation, business-plan development, hackathons, external partnerships and startup incubation..

3. **Incubation and Commercialisation Support:** sathyabama initiatives include virtual incubation, startup grants, mentor and investor engagement, and prototype development. Its portfolio spans healthcare, aquaculture, agriculture, embedded systems, fintech and waste management, demonstrating multidisciplinary innovation and pathways from ideas to market-ready ventures.

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Services for incubates

Service	Description
Company registration	Help registering as udayam, proprietorship, LLP, OPC or private limited firm
SEED grant support	To develop innovative ideas, build prototypes, validate concepts, and support early-stage commercialization.
Start-up India registration	Support obtaining DPIIT recognition
IPR support	Filing support with the Tamil Nadu State Council for Science and Technology; concessional patent filing through the Start-up India portal
Technology transfer	Support for moving data, designs, inventions, materials, software or know-how between organizations
Intern support	Incubated start-ups can hire Sathyabama student interns
Start-up acceleration	For start-ups with a minimum viable product
Tech support	Prototype development from concept to commercialization
Marketing guidance	Market research, launch support and promotion
Product showcase	Display at national and international expos
Networking	Market linkages through workshops, interface meetings, conferences and investor interactions

List of Spinoff :

S.No	FOUNDER NAME	COMPANY NAME	Incorporation Number
1	Dr. M. Sugudev	TeXPLO Embedded Solutions LLP	ABC-4647
2	DR. Nirmala	Whizz EduGamics LLP	U33100TN2022PTC154723
3	Dr. Senthil kumar	Jaali Innovations LLP	ABC-3987
4	Dr. Grace Kannmani	Hinnovx Pvt Ltd	U33100TN2022PTC154723
5	Mr. Yuvaraj	Y R Media Pvt Ltd	U72900TN2022PTC154625
6	Dr. Cruz Antony	Benx Solutions LLP	ABC-1946

S.No	FOUNDER NAME	COMPANY NAME	Incorporation Number
7	Dr. Kalai Lakshmi	Hikayem Innovations Pvt Ltd	U72900TN2022PTC155822
8	Dr. Vijaya Baskar	Cloud Mount Innovations Pvt Ltd	U72900TN2022PTC154597
9	Dr, Sudha Uthaman	Bhogam Agro Solutions Pvt Ltd	U01100TN2022PTC154717
10	Dr. Chennakasavelu	Kattela Scientific Pvt Ltd	U31909TN2023PTC158228
11	Mr.Edward Kenndy	Oviya Arts Pvt Ltd	U80301TN2022PTC155207
12	Dr. Rajeshwari	Raharsh Pvt Ltd	U05003TN2022PTC157847
13	Dr. Poornapushpakala	Poobas Pvt Ltd	U01111TN2022PTC157639
14	Dr. Prakash	Glass tank Science Pvt Ltd	U15490TN2022PTC153328
15	Dr. Govindaraju	Space Biotech Pvt. Ltd	U24239TN2021PTC144902
16	Mr. Balaji Marisamy	drobots tech pvt ltd	U73100TN2021PTC142903
17	Mr. Neelakandan Ananth Ram	Gantham Ventures Pvt. Ltd	U28999TN2020PTC135730
18	Dr. Anderson	Airtrigger Pvt Ltd	U28213TN2023PTC159420
19	Dr. Ramachandran	Penteum Enterprises Pvt Ltd	U26993TN2022PTC157400
20	Dr. Murugadoss	Chemmatnano Pvt Ltd	U31909TN2023PTC158228
21	Dr. Dawn	Biglyso Pvt Ltd	U38210TN2023PTC162070
22	Mr. Krishna	Linkb Network Pvt Ltd	U61900TN2023PTC162283
23	Dr.A.sivasangari	Jawadhu Fresh Mart Pvt Ltd	U46209TN2023PTC166229
24	Mr. Rohan	Studotech Innovation Pvt. Ltd	U62099TN2023PTC158620
25	Ms. Sarojini	Nature Hunt Pvt. Ltd	U15400TN2022PTC153868
26	Ms. Dhaarani	Narumugai Herbal Napkin Pvt. Ltd	U74999TN2016PTC113075
27	Mr. Kishore	Versalgo Pvt. Ltd	U63999TN2023PTC163170
28	Mr. Dinesh	Vividobots Pvt. Ltd	U29200TN2021PTC143795
29	Mr. Ajith	Plaskon Plastic Eco Circular Pvt. Ltd	U37100TN2021PTC143592
30	Ms. Kamala	Dms Innovative Technologies Pvt. Ltd	U72200KA2008PTC045467
31	Mr. Shanmugaraja	Native Krea Pvt. Ltd	U74999TN2022PTC153232
32	Dr. Sapan Kumar	Vegm Foodtech Pvt. Ltd	U10615HP2023PTC009937
33	Mr. Nandhakumar	Slo-B Greentech Pvt. Ltd	U23942TN2023PTC162229

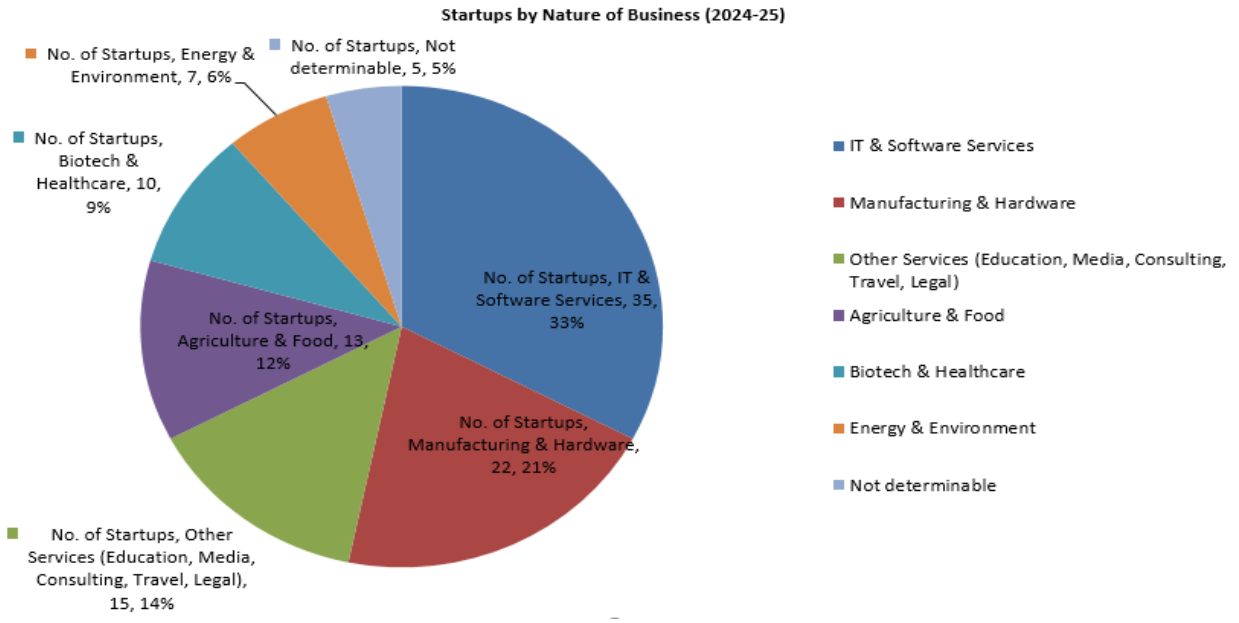
S.No	FOUNDER NAME	COMPANY NAME	Incorporation Number
34	Ms. Balavigneshwari	Al-Zira Technology Pvt. Ltd	U23109TN2023PTC159659
35	Mr. Swaminathan Rajagopal	La Poochi Pvt. Ltd	U72900TN2021PTC146142
36	Ms. Saranya	Bonfring Consultancy Services Pvt. Ltd	U58132TZ2019PTC032115
37	Mr. Vinoth	Aerolyt - Ce3 Ventures Pvt. Ltd	U26515TN2024PTC169781
38	Goutham	Innoxr Labs	U62011TN2025PTC186378
39	Samuel Oral	Drone Express	UDYAM-TN-08-0098912
40	Prakith	Savorly	UDYAM-TN-02-0377781
41	Rathish Priyadarsan	IOXIT Tech	UDYAM-TN-04-0079373
42	Vinoth kanna	Lexmoon Pvt Ltd	U69100TN2023PTC163852
43	Aswin ram kumar	Eco Manufacturers	UDAYAM-TN-08-0098328
44	Yoganarayan	Portable Green House Dryer	UDYAM-TN-08-0098331
45	Harichandran	Aerofilter Solutions Pvt Ltd	U28195TN2024PTC173917
46	Jerrim Llewelyn	Skylume Visions Private Limited	U62013TN2024PTC174106
47	Banka Gireesh Patrudu	Vividhra	U39000AP2024PTC116376
48	Naveen	Glidoblob Medcare Pvt Ltd	U72100TN2024PTC174790
49	Pranav R K	Forcynx Aerospace Pvt. Ltd	U30304TN2024PTC174796
50	Madhujith Arumugam	Galactis Ai Tech Pvt Ltd	U30304TN2024PTC174796
51	Syed Abrar Mohammed	Sagson Tech Pvt Ltd	U58200TN2025PTC186928
52	Jaswant	Reelr Holidays Pvt Ltd	U79120TN2024PTC174114
53	karthikesh haridoss	Hyosene Battery Pvt. Ltd.	U27200TN2024PTC174846
54	Ukenthiran	Relyce Infotech	UDYAM-TN-29-0063203
55	Yogeswaran	Grewbie Technologies Pvt Ltd	U62099TN2025PTC178387
56	Balaji S	Solopro	UDYAM-TN-08-0097971
57	Jensin Joshua	Gifzer Academy And Innovations Pvt. Ltd	U80903TN2018PTC123065
58	Dr L. Stanley Abraham	JASSP Eco Tech Pvt Ltd	U29299TN2022PTC156981
59	Dr. V. Karthick	Piraibio	UDYAM-TN-08-0098106

S.No	FOUNDER NAME	COMPANY NAME	Incorporation Number
60	Dr. Stalin Dhas	Pectogel Nanobiowrap	UDYAM-TN-02-1065050
61	Dr. D.Jeyapragash	Ocean Derme	UDYAM-TN-08-0097964
62	Keerthana Vijayanand	Citrozyme Biotech Private Limited	U20232TN2025PTC179120
63	Dinesh	Vita Rail Services Pvt Ltd	U62099TN2025PTC180822
64	Nagendra Dasari	Apixy	U62011TN2026PTC191213
65	Shahul Hameed	Pourad India Pvt Ltd	U72100TN2025PTC178097
66	Sangeeth Priyan	Quantelle Enterprises	U62020TN2025PTC185711
67	Srivarshan	Raha Xr Pvt Ltd	U58202TN2024PTC173252
68	Uthkarsh Singh	Zuuce Solution Pvt Ltd	U63122TN2025PTC179169
69	Harish	Ravencrew Tech Pvt Ltd	U74909TN2024PTC175508
70	Gokul	Machcent Pvt Ltd	U26109TN2025PTC180593
71	AKSHAY KUMAR	Astra Dyne Global	UDYAM-TN-22-0097576
72	Illaya raja	Brumbella	U26209TN2026PTC188321
73	Mr. Raja	Bootup Media Private Limited	U18200TN2024PTC167091
74	Dr. Dayanandan Anandan	Greater Greener Technologies Pvt Ltd	U46209TN2024PTC168476
75	Dr. Radhakrishnan	Kuganya Biocare India Pvt Ltd	U03220TN2024PTC174594
76	Ms. Saranya	Analytical Avenue Llp	U72900KA2021PTC153226
77	Mr. Namakshivayam	Neuronx AI Pvt. Ltd	U62013TN2024PTC170894
78	Mr. Abishek	Chill City Technologies Pvt. Ltd	U27900MH2025PTC443377
79	Mr. Ravindria Joshi	Hyperstrand Technologies Pvt. Ltd	U27900MH2025PTC443377
80	Mr. Bala	Shahar Technologies Pvt. Ltd	U62099TN2023OPC161007
81	Mr. Nikesh	Blinq Mobility Pvt. Ltd	U29302HR2024PTC125372
82	Mr. Prabhu	Uzhavar Sandhai Pvt. Ltd	U51221TN2023PTC158113
83	Boopathy Rajendran	ATOM2 technologies India pvt ltd	U62013TN2025FTC176093
84	Aswath Kumaravel	JnR Enterprises	U74999HR2019PTC080449
85	Venkateshwaran I	Jaishakthi constructions	U45200TN2008PTC067515
86	Udaykumar Volipi	Sunloom exports private limited	U01225AP2025PTC117972
87	MURLIDHAR PATHAK	ByteBix Technologies	U62099BR2024PTC068911

S.No	FOUNDER NAME	COMPANY NAME	Incorporation Number
88	Keerthanaa Vijayanand	Citrozyme Biotech Pvt Ltd	U20232TN2025PTC179120
89	Kaviyadharshini S	UprootInnovation	U72200MH2016PTC283338
90	Manjunath KB	Twite AI	U62099TN2023PTC166167*
91	Naveen A.P	Glidoblob Medcare Pvt Ltd	U72100TN2024PTC174790
92	Manoj R	Klyphs	AAT-0076
93	J.Durga	Srivensy technologies pvt ltd	U72900AP2022PTC123207
94	Nitin M	H.E.A.Research Pvt Ltd	U32509TN2025PTC183183
95	SARAVANA KUMAR M	GlanzaTech Global Services Private Limited	U62091TN2024PTC175530
96	Archana Vijayaraman	Twite Ai Technologies	U62099TN2023PTC166167
97	Sameer Kumar Srivastava	TWITE AI TECHNOLOGIES PVT LTD	U62099TN2023PTC166167
98	Kiruthivasan	Aristocrat intelli-Tech & Aristoverse Deep-Tech	U62013TN2024PTC171420
99	Sameer	Kairoz Corporation	U62090MH2025PTC462373
100	Agnes Amalthea	Evygo Mobility Pvt Ltd	U77100TN2025PTC187458
101	Nukala SREEKANTH	HybriMoto India	UDYAM-TN-08-0116551
102	Sivarama krishnan	Robohatch private limited	U35105AP2026PTC126729
103	Sharmila S	Hapteeq Technologies	U58201TS2024PTC181920
104	Mr. Ravikumar	Hackwit technologies Pvt Ltd	U72900TZ2020PTC034321
105	Mr. Balaji Marisamy	drobots tech pvt ltd	U73100TN2021PTC142903
106	Mr. Azariya Samuel	Arisrcrat IT Pvt Ltd	U45201TN2015PTC100661
107	Mr. Gopal	India Advocacy	U7200TN2019PTC128156

Startups 2024-25 — Grouped by Nature of Business

Nature of Business	No. of Startups	Share (%)
IT & Software Services	35	32.70%
Manufacturing & Hardware	22	20.60%
Other Services (Education, Media, Consulting, Travel, Legal)	15	14.00%
Agriculture & Food	13	12.10%
Biotech & Healthcare	10	9.30%
Energy & Environment	7	6.50%
Not determinable	5	4.70%
Total	**107**	**100.00%**



Infrastructure support

- **Nikon Super Resolution Confocal Microscope (AXR with NSPARC) and CytoFLEX flow cytometry facility**, established on 27 June 2024 at the Centre for Molecular and Nanomedical Sciences, International Research Centre. Sathyabama is the first institution in India to install the Nikon system.
- **Advanced Geo-Environmental Lab** at the Centre for Earth and Atmospheric Sciences, with atomic absorption spectroscopy and ion chromatography for sediment, water and air samples; the 50-metre meteorological tower was upgraded with new wind, temperature and humidity sensors.
- **Sky Imager**, installed with IIT Madras at the Centre for Remote Sensing and Geoinformatics, capturing a sky image every minute in daylight.
- **Centre for Aquaculture:** a Molecular and Microbiology Laboratory and a Recirculatory Aquarium System.
- **Centre for Waste Management:** a pilot plant producing bioethanol from agro-waste and cellulose-rich biomass.
- **Sathyabama Simulation Centre**, Basic Life Support training of students and staff.
- **Centre Lex Environer**, an environmental-law centre set up by the School of Law.
- **Sriperumbudur off-campus**, approved by the Ministry of Education on UGC's advice, with laboratories, library, hostels, sports and research facilities, near industrial hubs.
- **Makerspace, Centre of Excellence for Additive Manufacturing (Stratasys, India)**, which produced 3D-bioprinted blood vessel models, wound patches and a PET-bottle filament maker during the year.

Sathyabama TBI facilities

Sathyabama Technology Business Incubator (TBI), supported by NSTEDB, Department of Science and Technology, operates on the first floor of the Col. Dr. Jeppiaar Research Park, Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai 600119. Its incubation infrastructure covers about 22,000 sq. ft., and the incubation centre has been functioning since 2012. The facilities available to incubatees are listed below.

Bio Products Lab:

Laboratories listed under the TBI that support bio-based and marine-bioresource ventures, in line with the TBI's focus on the Blue Economy and marine bio resource utilization.



The Maker space is the Centre of Excellence for Additive Manufacturing (Stratasys, India), with a design lab, tissue engineering lab, material testing lab and chemical processing lab.





TBI Training hall



Startup Cell



Cubicles



Workstation



Board room

Laboratories and research facilities available (university list)

Laboratories and research facilities by school and Centre

The university's published list numbers 234 laboratories and facilities.

School or Centre	Laboratories and facilities
School of Computing	Edge Computing, Virtual Computing, AI and Machine Learning, Mobile Application Development, Rich Internet Applications, Software Engineering, Networking, Data Structures, Computing Simulation, RDBMS, Programming, AI Supercomputing, Metaverse

School or Centre	Laboratories and facilities
	Studio, DST-FIST WSN and IoT Lab, DST-FIST Cloud Computing Lab, Data Science Lab (Capgemini centre of excellence), NEXTGEN Research Lab (AR/VR)
School of Electrical and Electronics	Electronic Devices Labs 1 and 2, Electronic Circuits, Computing and Simulation Labs I and II, Digital Signal Processing, System Design, Analog Integrated Circuits, Communication, VLSI Design, Microwave and Microcontroller Labs I and II, Centre of Excellence on Embedded Programming and IC Design, Centre for Advanced Electronic Test Engineering, Amateur Radio Station (HAM), Sathyabama NI LabVIEW Academy, Electrical Machines, Power System, Circuits and Devices, Embedded System, Power Electronics, Texas Instruments Innovation Laboratory, Reverse Engineering, Electrical Drives, Centre of Energy
School of Bio and Chemical Engineering	Molecular Biology, Plant Tissue Culture, Bioprocess, Animal Tissue Culture, Biochemistry, Microbiology, CBiRD Research, Project Lab, Biosciences (GE Healthcare facility), Medical Electronics and Electronic Devices, Biotransducers and Digital Systems, Bioinstrumentation, Biocomputing, Molecular Modelling, Mass Transfer, Chemical Reaction Engineering, Mechanical Operations, Technical Analysis and Instrumentation
School of Mechanical Engineering (including aeronautical and automobile)	Material Testing, Thermal Engineering, Fluid Mechanics and Machinery, Collaborative Product Design and Development, Dynamics, Computational Fluid Mechanics, Mechatronics and Simulation, Sensors and Instrumentation, Robotics, CAM, Computation, Aerodynamics, Supersonic Wind Tunnel, Propulsion, Aircraft Structures, Aircraft Composites, Aircraft System and Maintenance, Aero Modelling and Space, Fuels and Lubricants, Automotive Electrical, Two and Three Wheeler, Automotive Chassis

School or Centre	Laboratories and facilities
	and Engine Components, Vehicle Maintenance and Reconditioning
School of Building and Environment	Environment Engineering, Environmental Engineering, Building Services, CAAD, CAD, Material Museum, Model Making, Structural Engineering, Strength of Materials, Soil Mechanics, Surveying, Highway Engineering, Concrete Technology, Pattern Making, Garment Construction
School of Science and Humanities	Physics, DST-FIST Material Science Lab, Chemistry, Audio Work Station, Voice Booth, Video Editing, Television Production, Photography Studio, Multimedia, Media Centre, Psychology
School of Management Studies and School of Law	Four management computer labs; Moot Court
School of Dental Sciences	Histopathology, biochemistry, microbiology, general pathology, anatomy (histology, cadaver demonstration, museum), physiology, pharmacology; clinical areas and labs in pedodontics, endodontics, prosthodontics, orthodontics, periodontics, oral medicine and radiology, oral and maxillofacial surgery and public health dentistry; dental museum; three peripheral centres
School of Pharmacy	Pharmaceutical Chemistry I and II, Pharmaceutics I to III, Pharmacognosy I and II, Pharmacology I to III (including pharmacy practice), Pharmaceutical Analysis, Pharmaceutical Biotechnology
School of Nursing	Nursing Foundation, Nutrition, Maternal and Child Health Nursing, Community Health Nursing, Advanced Nursing
Centre for Nanoscience and Nanotechnology	Advanced Characterization Facility (HRSTEM, FESEM, XRD), Raman Spectroscopy, XRD, FESEM, AFM, Analytical Spectroscopy, Soft Matter, Surface Physics, Material Testing,

School or Centre	Laboratories and facilities
	Chemical Labs, Nutrition Physiology, Cement and Concrete, Bio-fouling, Molecular Nanomedicine Research Unit
Centre for Molecular and Nanomedical Sciences	Fermentation and Bioprocessing, Functional Genomics, Neuroscience, Zebrafish Facility, Bio-separation Facility, Cell Culture and Molecular Biology, In Vitro Organ Culture, Earthworm Culture and Rearing, Regeneration and Stem Cell Biology
Centre for Ocean Research	Mass Spectroscopy, Microscopy, Genomics and Proteomics, Fish Cell Line Culture, Biofermentation, Microbiology, Biofouling, Halophyte In Vitro Propagation, General Analytical, Instrumentation, Marine Biotechnology, Post-harvest, Materials Chemistry, Macroalgal By-product, Bioproduct, Col. Dr. Jeppiar Ocean Research Field Facility
Centre for Laboratory Animal Technology and Research	Animal Facility Room, Operation Theatre, Biochemistry, Pharmacology, Biomaterials, Microbiology, In Vitro, Behavioural Study, Molecular Lab
Centre for Energy Research	Photovoltaic Lab, Energy Materials Lab
Centre for Waste Management	Biofuels, Fermentation and Bioprocessing, Quality Testing and Analysis
Centre for Climate Change Studies	Marine Algal Culture, Experimental Aquaculture
Centre for Earth and Atmospheric Sciences; Centre for Remote Sensing	Atmospheric Science Lab, Advanced GeoEnvironmental Lab; Remote Sensing and GIS Lab
Centre for Advanced Studies and Centre for Additive Manufacturing	Drone and Robotics Experimentarium; Makerspace (Tissue Engineering, Material Testing, Chemical Processing); Design Lab, FAB Lab, Post Processing Lab
Centre for Quality Assurance and Non-destructive Evaluation	Non-destructive Testing Lab

School or Centre	Laboratories and facilities
Technology Business Incubator	Advanced Prototyping Space, Bioproducts Lab, Macroalgal Lab, Makerspace

Research highlights relevant to SDG 9

- **Energy:** the Centre of Excellence for Energy Research demonstrated a battery-type supercapacitor with a stable operating voltage of about 1.8 V, and developed flexible thin-film solar cells from earth-abundant quaternary chalcogenide materials.
- **Materials and defence:** the Centre for Nanoscience and Nanotechnology developed a hypergolic green bipropellant system with ISRO's Liquid Propulsion Systems Centre, and composites with high-temperature stability and radar absorption with DRDO Defence Laboratory Jodhpur.
- **Water and sensing:** a small-molecule sensor for Cr(VI), Hg2+ and uranyl ions in water; a nano-coated antimicrobial cotton shirt tested in vitro.
- **Additive manufacturing:** 3D-bioprinted blood vessel models for drug screening and vascular grafts; biodegradable wound patches for diabetic and thermal lesions; an indigenous filament maker that turns used PET bottles into 3D-printing filament.
- **Waste to energy:** the Centre for Waste Management converts used cooking oil and food waste into biodiesel and biogas, earning institutional carbon credits.
- **Ocean and aquaculture:** the Centre for Ocean Research became lead research institute for transboundary fisheries research under the BoBP-IGO, with the BIMReN network funded at Rs 3.5 crore; the Centre for Aquaculture developed a polyvalent vaccine against Aeromonas hydrophila in ornamental fish.
- **Health technology:** an AI-powered hormone detection device (DST-TIDE) and the immunAIM and MATHE.AI platforms with Vivagen Dx Labs.

9.6 Moving Forward with SDG 9

Sathyabama will continue to strengthen incubation, IPR support and technology transfer, while widening the sustainability focus of its start-up pipeline in renewable energy, water, waste-to-energy and green chemistry. The university's Institutional Development Plan 2026–2030 provides the framework for these commitments.

Research centres relevant to SDG 9 include the Centre for Nanoscience and Nanotechnology, Centre for Ocean Research (established in 2007 with the National Institute of Ocean Technology), Centre for Molecular and Nanomedical Sciences, Centre for Laboratory Animal Technology and Research, Centre for Earth and Atmospheric Sciences, Centre for Energy Research, Centre for Additive Manufacturing, and the Centre for Non-destructive Testing and Evaluation (inaugurated in 2019). Industry-linked facilities include the Capgemini data science centre of excellence, Sathyabama NI LabVIEW Academy, the Texas Instruments Innovation Laboratory and the Stratasys-accredited Makerspace. Section 9.2 lists their laboratories.

Products and Innovations in 2024–25

- **immunAIM:** a multidimensional immunomics platform launched by the Centre for Drug Discovery and Development with Vivagen Dx Labs.
- **MATHE.AI:** described as India's first AI-based platform for endometrial health, using imaging, clinical, blood and genetic data for early diagnosis.
- **Polyvalent vaccine** for ornamental fish diseases (Aeromonas hydrophila).
- **Supercapacitor and flexible thin-film solar cells** from the Centre of Excellence for Energy Research.
- **IoT-based smart waste management device**, built by Electronics and Communication Engineering students with the Centre for Remote Sensing and Geoinformatics.
- **Bioethanol pilot plant** and **biodiesel and biogas** from waste at the Centre for Waste Management.
- **PET-bottle filament maker**, **3D-bioprinted blood vessel models** and **biodegradable wound patches** from the Makerspace.







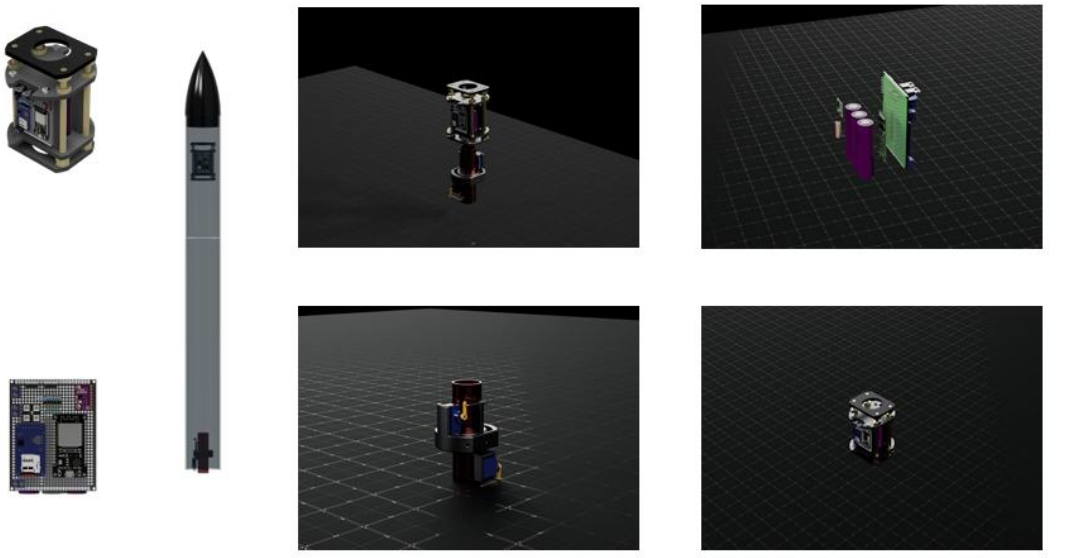
The alternative ecofriendly materials pycocolloids like alginate and carageenan which is degradable, cost effective and non toxic • The new system could lead to the development of safer and more efficient batteries, with diversified applications. •Nanomaterials made from seaweed could be used to create greener and more efficient energy storage

CITROZYME CLEANER

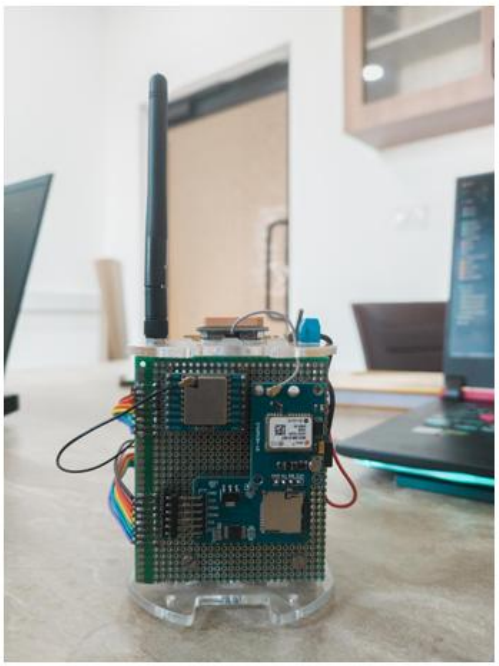
GENTLE ON THE EARTH, TOUGH ON THE GRIME

Citrozyme Cleaner – Orange Delight" is an effective formula has been derived to yield appreciable results .Currently, available with variations in viscosity for multi-purpose usage. The product is undergoing rigorous testing. Efforts are on to enhance fragrance as part of the continuous improvement initiatives

FORCYNX AEROSPACE PVT LTD
Opening space for all







Introducing a flexible, cost-effective launch system with modular designs and streamlined processes, tailored specifically for small payloads and rapid deployment

GlidoBlob
Invigorating Longevity



"Blobs" are soft, jelly-like, bite-sized products made up of biodegradable ingredients (e.g., seaweed) in which a variety of natural remedies or nutraceuticals can be incorporated. Specifically, we have developed a blob using natural ingredients which can be used travel sickness and nausea & vomiting.

PECTOGEL

Nanobiowrap

Pectogel Nanobiowrap
Eco-friendly packaging solutions

Towards a positive solution…..
Pectogel Nano-biowraps

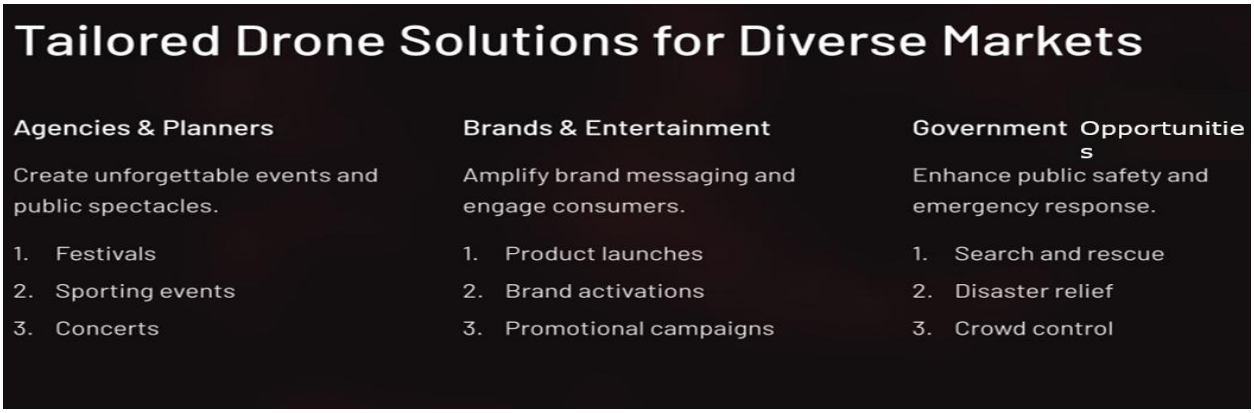
- Biodegradable wraps
- Enhanced stability- nano Se incorporated
- Made of Pectin Extracted from Citrus fruits
- Antimicrobial packaging of fruits/vegetables/meat





SKYLUME TECHNOLOGIES

Where Ideas Take Flight and Light



Startups received Grants

S No	Name of Program/Scheme	Funding agency	Total sanctioned amount (in Rs.)
1.	Scaleup Award by Startup TN	Startup TN	5,00,000
2.	TANSEED 6.0 -Al-Zira Technology Private limited	Startup TN	10,00,000
3.	Dr Swarna Latha, ZENVIQUE Naturals Private Limited	MSME	15,00,000
4.	Dr.A.Sivasangari	Yukti Innovation, AICTE	4,00,000
5.	Mr.Ariharan-Vugha Technological Solutions Pvt Ltd	IVP	1,44,353
6.	Priyangadevi Seenivasan-Happy walk Pvt Ltd	IVP	2,00,000
7.	Dr.Amit -Halocolor	IVP	1,92,000
8.	Tamil Nadu Startup Thiruvizha - Madurai Edition 2024	Al-zira Technologies Pvt Ltd	15,00,000

S No	Name of Program/Scheme	Funding agency	Total sanctioned amount (in Rs.)

Activities:



Technical Talk "Engineering the Mind: Cognitive Science Fueling AI Revolution"

Issue 2 | 19 September 2024

Mr. M.K. Kumaresan, Senior AI Consultant, Google India Pvt. Ltd., Bengaluru, spoke on the role of cognitive science in advancing AI, focusing on Google's CCAI suite and its use in smart contact

centres. He explained how conversational AI is transforming industries and covered practical applications of Dialogflow.



UAV DROBOTICS Club – Drone Orientation Programme

Issue 2 | 19 September 2024 | Dept. of CSE, UAV DROBOTICS Club

Led by Mr. Ganesh Rajendran, Director, AIRobo, the programme presented the hardware, software and communication components of drone systems. A highlight was a humanoid robot that interacted with the audience, answered questions and performed basic movements.



Representation at Global Bio-India Expo 2024

Issue 2 | 12–14 September 2024 | Pragati Maidan, New Delhi

The Institute was represented at the annual Global Bio-India Expo, organised by the Biotechnology Industry Research Assistance Council (BIRAC) under the Department of Biotechnology, Government of India, to showcase India's biotech growth and opportunities. Dr. S. Prakash (Centre

for Climate Change Studies) and Dr. Johnson Retnaraj Samuel (Centre for Molecular and Nano Medical Sciences) represented Sathyabama.



Student Innovation and Incubation

Eco-friendly Electric Go-Kart by Team FOFONA 23

Issue 1 | 2024 | Dept. of EEE

Students of Team FOFONA 23 designed and developed an eco-friendly electric go-kart with a lightweight chassis, advanced control systems and enhanced safety features.



Aerolyt – Sathyabama TBI Incubatee

Issue 3 | 2024–25 | Sathyabama Technology Business Incubator

Aerolyt (CE3 Venture Pvt. Ltd.), incubated at Sathyabama TBI, develops swarm drone technology for entertainment and defence. Mr. Vinoth, Founder & CEO, and his team developed 50 swarm

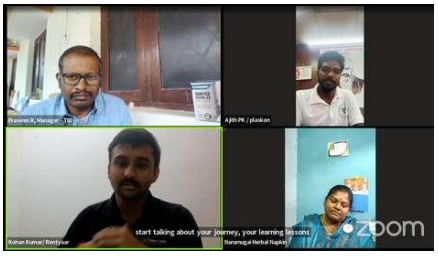
drones and demonstrated a drone light show, and aim to expand the fleet by 200 by the end of the year. The image published with this item is the TBI's Startup India Seed Fund Scheme graphic.



Figure 7: Aerolyt – Sathyabama TBI Incubatee (Campus Insights, Issue 3)

The newsletter reports the StartUp Fest with photographs only. A graphic on the newsletter page reports 27+ guest speakers, 600+ teams, ₹5,00,000 cash prize distributed and ₹50,00,000 funding, mentoring and growth support.





National Startup Day

Date: 16.01.2024

Sathyabama TBI observed National Startup Day with an interactive session in which accomplished incubatee founders – Mr. Ajith P K (Plaskon Plastics Eco Circular Pvt. Ltd.), Mr. Rohan Kumar (Studotech Innovations Pvt. Ltd.) and Ms. S. Dhaarani (Narumugai Herbal Napkin) – shared their entrepreneurial journeys. The session offered practical insights and motivation to young and aspiring entrepreneurs.

Launch of India's First Blue Economy Startup Incubation Cohort (CORAL)



Date: 24.01.2024

In association with Startup TN, Government of Tamil Nadu, Sathyabama TBI launched India's first incubation cohort dedicated to Blue Economy startups. Ms. Archana Patnaik, I.A.S., Secretary – MSME, Government of Tamil Nadu, released the cohort poster and exchanged the Memorandum of Understanding for the promotion of Blue Economy startups in the State.

Scaleup Incubator Award – Startup TN (Third Consecutive Year)



Date: 29.02.2024

Sathyabama TBI received the Scaleup Incubator Award from Startup TN for the third consecutive year. The award was presented by Thiru. T.M. Anbarasan, Hon'ble Minister for Micro, Small and Medium Enterprises, Government of Tamil Nadu, at the Tamil Nadu Startup Incubators Summit 2024, in recognition of the incubator's sustained contribution to the State's startup ecosystem.

Fishtank – Aquaculture Startup & Innovation Challenge



Date: Jul–Sep 2024

Sathyabama TBI, together with Aquaconnect and StartupTN, hosted Fishtank, an innovation challenge for aquaculture startups. Awardees received cheques from Mr. Sivarajah Ramanathan, Mission Director – StartupTN; Dr. B. Sheela Rani, Director (Research), Sathyabama TBI; Mr. Santhana Krishnan, CFO, Marine Technologies; and Mr. Rajamanohar, Founder & CEO, Aquaconnect. The jury comprised Dr. Ravishankar, Dr. Victor Suresh, Mr. Santhana Krishnan, Dr. Manoj M. Sharma, Dr. Nisha Mukund and Dr. Inbakandan Dhinakarasamy.

Sathyabama NEXUS 1.0 – Virtual Incubation Program and Innovation Voucher Program

Date: Oct–Dec 2024

Sathyabama TBI launched NEXUS 1.0, a 12-month Virtual Incubation Program (V.I.P.) for startups across sectors, offering mentorship, fundraising support, market connections, networking opportunities and grant-proposal writing assistance (applications closed on 20.01.2025). During the same quarter, the incubator announced that the Innovation Voucher Program (IVP) was open for applications through the EDII-IVP portal.

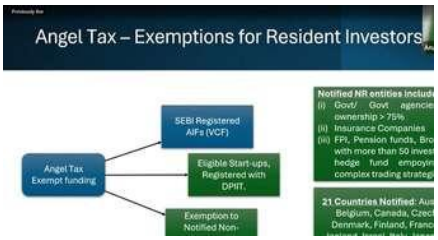
1.Mentor Café, Investor Café and Startup Capacity Building



Startup SME Growth School – Udyam Registration (Online)

Date: 23.01.2024

Under its Startup SME Growth School initiative, Sathyabama TBI conducted an online session on Udyam Registration, explaining its scope, procedure and benefits. Participants gained a clear understanding of the registration process and its relevance to business growth and compliance.



Mentor Café – Angel Tax Exemption

Date: 10.02.2024

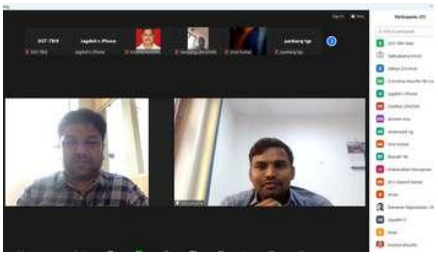
Organised in association with BDO India and SATTRA, the session was addressed by C.A. Anantharaman and C.A. Samyuktha, who explained the provisions of angel tax and the steps to avail exemptions. Around 37 startups participated online and discussed various terms of angel investment.



Scale Your Startup

Date: 27.02.2024

Sathyabama TBI and Open Weaver jointly organised a training programme led by Mr. Ashok Balasubramanian, CEO, Open Weaver, offering practical strategies for scaling startups in a competitive landscape. Around 50 students attended.



Mentor Café – "Ask Me Anything about Startup India Seed Fund Scheme"

Date: 28.08.2024

Mr. Sathya Murthy V, Head – Sona Incubations, Salem, addressed participants on the opportunities available under the Startup India Seed Fund Scheme. The session, coordinated by Mr. Brabasuthan M, Associate – Sathyabama TBI, saw active participation from 30 external startups and MSMEs.



Investor Café – Fund Raising Master Class

Date: 20–21.09.2024

A two-day intensive master class on fundraising was led by pitch-deck expert Mr. Premananth, covering the key components of investment readiness. Eight startups took part in the highly interactive sessions.



Mentor Café – Master Class on Compliances for Startups

Date: 03.10.2024

Mr. Karthick, Partner – SATTRA, spoke on company formation rules and regulations; Ms. Joshita Ramanathan, Partner – Maharajini Consultancy LLP, covered the fundamentals of taxation; and Mr. Govardana Prakasam, Partner – SATTRA, addressed taxation systems for startups. The class equipped founders to navigate company formation, taxation and fundraising compliance.



Startup Voyage – Blue Economy: Maritime Startup Opportunities

Date: 08.11.2024

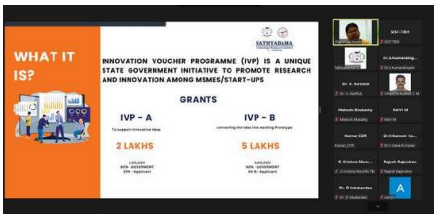
Mr. Mohana Krishnan Ethirajulu, Founder & CEO, Xera Robotics, delivered the keynote address on emerging opportunities in the maritime sector. Over 30 startups attended, strengthening collaboration within the Blue Economy.



Startup SME Growth School – Panel Discussion: Struggles of MSMEs to Become Startups

Date: 20.11.2024

An online panel discussion examined the challenges MSMEs face in evolving into startups. Mr. Brabasuthan M, Lead – Sathyabama TBI, and Mr. Krishna Moorthi G, Associate – Sathyabama TBI, facilitated an exchange of insights between industry experts and entrepreneurs on solutions for MSME growth.



Insights on Innovation Voucher Program (IVP)

Date: 04.12.2024

Ms. Chandrika Murali, Associate – Investments, Sathyabama TBI, explained how businesses can leverage the Innovation Voucher Program of the Government of Tamil Nadu, including its Voucher A and Voucher B grants, to drive innovation and growth.



NEXUS 1.0 – From Idea to MVP: Market-Ready Prototyping Tools

Date: 09.04.2025

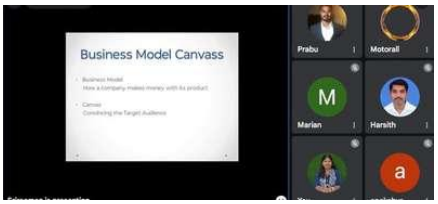
In this virtual session, Mr. Shakthi Prashanth guided participants in using practical tools to build minimum viable products, validate ideas and prepare for early-stage funding.



NEXUS 1.0 – Intellectual Property Rights: IPR Strategy

Date: 05.05.2025

Experts from S.S. Rana & Co. covered the types of intellectual property, the patent-filing process and the ways in which a sound IPR strategy enhances startup valuation, legal protection and investor confidence.



NEXUS 1.0 – Decode the Startup Formula: BMC & LMC in Action

Date: 29.05.2025

Mr. Sriraaman M, Board Member, IAMUSAP Ventures, provided strategic guidance on applying the Business Model Canvas and Lean Model Canvas to structure, validate and scale startup ideas into investor-ready business models.



Insights on Startup Toolkits – Focusing on AWS

Date: 23.06.2025

Organised with Meyicloud, the virtual session featured Mr. Duraimurugan I, Technology Lead, and Ms. Jenifer Jasper, Marketing Lead, who shared insights on AWS credits, mentorship and cost optimisation. Over 20 startups were guided towards scalable, cloud-powered growth.

2. Student Entrepreneurship, Awareness and Skill Development



Startup Awareness Program – Department of Automobile Engineering

Date: 24.07.2024

Under the theme "Building Entrepreneurship Thinking & Culture for Sathyabama Students", around 80 third-year students learnt the basics of startups in a session conducted by Mr. Praveen R, Manager – Bangalore Bioinnovation Centre.



Value-Added Course – "Learn to Innovate"

Date: 27.08.2024 – 09.09.2024

Convened by Mr. G. Krishnamoorthy, Associate (Industry Relations), the course engaged 11 participants from the Schools of Mechanical, Electrical & Electronics and Computing. It was designed to build essential innovation skills and creativity for an evolving business landscape.



Startup Awareness Program – Department of Chemistry

Date: 18.09.2024

Around 30 third-year students learnt startup fundamentals from Dr. T.S. Seshadri, Advisor – Sathyabama TBI, who shared practical knowledge and insights.



Startup Awareness Program – Department of Civil Engineering

Date: 18.09.2024

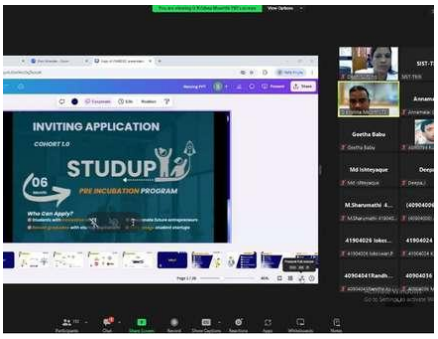
Sixty third-year students gained insights into the fundamentals of startups in a session conducted and facilitated by Mr. Brabasuthan M, Associate – Sathyabama TBI.



Student Corner – Founder's Day Tribute

Date: 05.10.2024

Students of the "Learn to Innovate" value-added course applied their skills to create a laser-engraved picture, which they presented on Founder's Day as a tribute to the values and vision of the Institution.



Awareness Session on STUDUP – Pre-Incubation Program

Date: 16.04.2025

This online session introduced students to the Student Incubation framework, covering idea validation, incubation support and funding opportunities. Mr. Maheshbhubathy G, Associate – Startup Relations, highlighted the importance of structured pre-incubation support for early-stage student entrepreneurs.



Innovation and Entrepreneurship 1.0 – Orientation Session

Date: 23.04.2025

Convened by Mr. Krishna Moorthi, Associate – Industrial Relations, the orientation introduced 30 students to real-time problem solving and startup ecosystems, nurturing creative thinking and an entrepreneurial mindset.



Pitch, Apply, Win – Cracking the Code of Startup Grants for Students

Date: 18.06.2025

Conducted with the Department of Information Technology and convened by Ms. M. Chandrika, Associate – Investments, this offline session engaged 60 students in interactive discussions on entrepreneurial thinking, pitching and startup foundations.



ACMEE 2025, Chennai Trade Centre, Nandambakkam

Date: 19.06.2025

The Institution participated in ACMEE 2025, inaugurated by the Hon'ble Chief Minister Thiru. M.K. Stalin. Students presented their entrepreneurial ideas and innovative projects to a wide range of industry leaders and stakeholders.



Innovation and Entrepreneurship 2.0 – Capacity-Building Session

Date: 24.06.2025

Organised with the Department of Computer Science and Engineering, the session was delivered by Ms. Tamilselvi C, Associate – Outreach, and Ms. M. Chandrika, Associate – Investments. It covered innovation, funding avenues and government schemes, engaging over 100 participants.



From Campus to Capital – Funding Pathways for Student Innovators

Date: 25.06.2025

Organised with the Department of Mechanical Engineering and facilitated by Ms. Chandrika M, the session equipped 50+ students with knowledge of startup funding models and schemes such as StartupTN, NIDHI PRAYAS and TANSEED.



3D – Design. Develop. Deliver: Two-Day Technical Workshop

Date: 26–27.06.2025

Organised with the Department of CSE (Artificial Intelligence), the workshop began with an Innovation Talk by Ms. Tamilselvi C and a session on funding by Ms. Chandrika Murali, followed by hands-on training in Laser Engraving (Day 1) and 3D Printing (Day 2) by Mr. Brabasuthan M, Lead – Sathyabama TBI. Thirty-three students gained practical prototyping experience.

3.Faculty and Mentor Development



Mentor Development Program

Date: 05–06.01.2024

A two-day programme for faculty members of Engineering and Technology was conducted by Mr. Gaddam Sudarshan, Mentor, Bhartiya Yuva Shakti Trust, to prepare faculty mentors to guide aspiring student entrepreneurs in building successful ventures.



FDP Webinar – Empowering Entrepreneurship and Startup Trends in Healthcare

Date: 25.11.2024

Coordinated with the Sathyabama College of Nursing and led by Mr. Krishna Moorthi G, Associate – Sathyabama TBI, the webinar provided strategies for faculty and entrepreneurs to succeed in the healthcare startup ecosystem.

4. TIFAC Academic Partner (TAP) Centre and Industry Collaboration



Sensitization Program 2.0 for Defence Industries, Hosur

Date: 23.02.2024

The Sathyabama TIFAC Academic Partner Centre organised a sensitization programme at Hosur, where defence industries shared their technology needs and suggestions with DST-TIFAC officials and the Sathyabama TAP team. The TAP Centre will follow up by assessing technology gaps in the defence industries.



Synergy Summit, Hosur

Date: 28.02.2024

The TAP Centre participated in the Synergy Summit organised by the Hosur Industries Association (HIA) at the Hotel Hills Convention Hall, Hosur, and exhibited its activities for defence industries.

Validation Workshop for the Coir Cluster – Coimbatore and Pollachi

Date: 26.09.2024



Held at the TANCOIR Office, Coimbatore, the workshop was attended by Prof. Pradeep Srivastava, Executive Director, DST-TIFAC; Shri Mukesh Mathur, Head of Administration & Establishment, DST-TIFAC; Dr. R. Kannan, CEO – TANCOIR; and coir industry leaders. The Institution was represented by Dr. B. Sheela Rani, Dr. D. Inbakandan, Dr. K. Govindaraju and Mr. G. Krishna Moorthi. The workshop focused on innovation, sustainable development and industry–academia collaboration in the coir sector.

Meeting at MSME-DFO, Guindy

Date: Apr–Jun 2025



The Sathyabama TBI team met Shri P. Lakshminarayana, IEDS, Assistant Director, MSME-DFO, Guindy, to discuss collaboration under the MSME Innovative Scheme, with emphasis on its Incubation, Design and IPR components.

5.Outreach and Ecosystem Participation

Startup Payanam – Infrastructure Showcase

Date: 18.01.2024



In association with Startup Payanam, Sathyabama TBI showcased its infrastructure and support systems to nearly 70 startup founders who visited the facilities.

Startup India Seed Fund Incubators Meet, Greater Noida

Date: 19.01.2024



Sathyabama TBI participated in the Seed Fund Incubators Meet organised by Startup India at Greater Noida.



Indian Ocean Regional Decade Conference, Hyderabad

Date: 01–03.02.2024

Sathyabama TBI participated in the conference organised by the Indian National Centre for Ocean Information Services (INCOIS), an official prelude to the 2024 UN Ocean Decade Conference, Barcelona.



World Ocean Science Congress 2024, IITM Research Park, Chennai

Date: 27–29.02.2024

Sathyabama TBI showcased its startup activities at the Congress organised by the National Institute of Ocean Technology.



Startup Mahakumbh, Bharat Mandapam, New Delhi

Date: 18–20.03.2024

Sathyabama TBI showcased its Startup India Seed Fund–supported startups at the three-day event. Incubatees Dr. Ravi Mani (Bogar Biologicals Pvt. Ltd.) and Mr. V. Nandha Kumar (SLO-B Green Tech Pvt. Ltd.) represented their startups.



Tamil Nadu Startup Thiruvizha – Madurai Edition 2024

Date: 28–29.09.2024

Mr. Brabasuthan M represented Sathyabama TBI at the StartupTN event, which brought together innovators, entrepreneurs and industry leaders to showcase new ideas and discuss the State's evolving startup ecosystem.



ISBACON 2024 – 16th Annual ISBA Conference

Date: 17.10.2024

Mr. Brabasuthan, Lead (Incubation), held a discussion on the promotion of startups with Mr. Praveen Roy, Head, TTI, Department of Science and Technology.



SOUMEX 2024 – Third Edition

Date: Oct–Dec 2024

Sathyabama TBI startups participated in the expo organised by the Tamil Nadu State Small and Tiny Industries Association and showcased their innovative products.



THE WEEK Maritime Conclave 2024, Chennai

Date: 05.11.2024

At the conclave held at Grand Chola, Guindy, Mr. Brabasuthan, Lead (Incubation), interacted with Commander Abhilash Tomy, KC, NM, a retired Indian Navy officer.



Care for Your Shore Programme

Date: 26.11.2024

The Sathyabama TBI team participated in the programme and interacted with Dr. Ramesh Ramachandran, Founder Director, National Centre for Sustainable Coastal Management, and Dr. Kharkiwal, Scientist E, MoEF&CC.

7



Narumugai Herbal Napkin – Rural Women Entrepreneurship Award

Date: 29.02.2024

Ms. Dhaarani Sekhar, CEO & Founder, Narumugai Herbal Napkin (Startup India beneficiary), received the Rural Women Entrepreneurship Award from Startup TN at the Tamil Nadu Incubators Summit.



Narumugai Herbal Napkin – International Women's Day Award

Date: 08.03.2024

Ms. Dhaarani Sekhar was further honoured with the International Women's Day Award by Swadeshi Jagran Manch.



Plaskon Plastics Eco Circular Pvt. Ltd. – Bharat Entrepreneur Award 2024

The Startup India Seed Fund beneficiary received the Bharat Entrepreneur Award 2024 in recognition of its leadership, dedication and impact on the entrepreneurial landscape of Tamil Nadu.



Al-Zira Technologies Pvt. Ltd. – TANSEED 6.0 Winner (₹15,00,000)

Date: 29.09.2024

The Startup India Seed Fund beneficiary was declared a TANSEED 6.0 winner with an award of ₹15,00,000 at the Tamil Nadu Startup Thiruvizha 2024 – Madurai Edition.



Aerolyt – CE3 Ventures Pvt. Ltd. – Funding Grant of ₹5 Lakh

Date: 25.11.2024

The incubatee, which specialises in swarm-drone technologies for light shows and defence, successfully tested a 50-drone swarm. In recognition, Dr. Mariazeena Johnson, Hon'ble Chancellor, Sathyabama Institute of Science and Technology, awarded a funding grant of ₹5 lakh for its innovation.



Brumbella – Innovation Voucher Program, Voucher A (₹3.75 Lakh)

Date: Apr–Jun 2025

Brumbella, a beneficiary of Sathyabama TBI, was awarded Voucher A of ₹3.75 lakh under the Innovation Voucher Program by EDII-Tamil Nadu.

Programs / Events

MENTOR CAFÉ SESSION ON "ASK ME ANYTHING ABOUT STARTUP INDIA SEED FUND SCHEME"

28.08.2024 Online



Mentor Café session on "Ask Me Anything about Startup India Seed Fund Scheme" 28.08.2024

Sathyabama Technology Business Incubator organized Mentor Café session on "Startup India Seed Fund Scheme" on 28 August, 2024 featuring Mr. Sathya Murthy V, Head - Sona Incubations, Salem. The session was coordinated by Mr. Brabasuthan M, Associate - Sathyabama TBI. Active participation were from 30 external startups and MSMEs. The discussion provided valuable insights towards navigating the opportunities offered by the Seed Fund Scheme.

INVESTOR CAFÉ ON FUND RAISING MASTER CLASS

20.09.2024 & 21.09.2024 Online



Investor Café on Fund Raising Master Class 20.09.2024 & 21.09.2024

Sathyabama-TBI organized two-days intensive Investor Café, "Fund Raising Master Class," on 20 & 21 September, 2024 aimed at equipping startups with the skills necessary for fundraising. The sessions were led by pitch deck expert Mr. Premananth who addressed on the key components of investment readiness. Overall 8 startups actively participated, contributing to a highly interactive and insightful experience.

"BUILDING ENTREPRENEURSHIP THINKING & CULTURE FOR SATHYABAMA STUDENTS"

Department of Mechanical Engineering

24.07.2024

TBI Training hall



Department of Chemistry
18.09.2024

Sathyabama TBI organized a Startup Awareness program on 24 July, 2024 for Department of Automobile Engineering third-year students. Around 80 students participated and learned the basics of startups. The session was conducted by Mr. Praveen R, Manager - Bangalore Bioinnovation Centre.

Department of Chemistry

18.09.2024

TBI Training hall



Department of Mechanical Engineering
24.07.2024

Sathyabama TBI organized a Startup Awareness Program on 18 September, 2024 for Department of Chemistry third-year students. Around 30 students participated and learned about startup fundamentals. The session was led by Dr. T. S. Seshadri, Advisor - Sathyabama TBI who shared valuable insights and practical knowledge.

INVESTOR CAFÉ ON FUND RAISING MASTER CLASS

20.09.2024 & 21.09.2024

Online





Mentor cafe - Master Class on Compliances for startups
03.10.2024

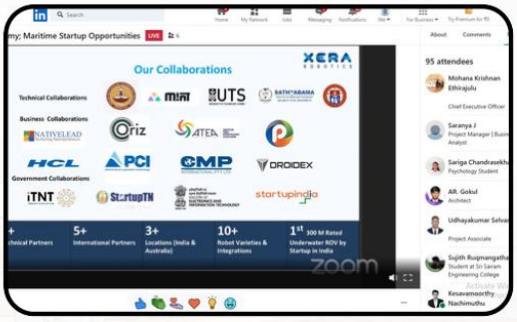
Sathyabama TBI organized a Master class focused on compliance topics essential for the success of startups on 3 October 2024. This event featured insightful presentations from distinguished speakers, Mr. Karthick, Partner - SATTRA, discussed company formation rules and regulations, and Ms. Joshita Ramanathan, Partner - Maharajini Consultancy LLP, covered the basics of taxation and its various types. The session provided the valuable knowledge on navigating the complexities of company formation, understanding taxation fundamentals, and ensuring compliance with fundraising regulations. Additionally, Mr. Govardana Prakasam, Partner - SATTRA, addressed taxation systems for startups.

Programs / Events

BLUE ECONOMY - MARITIME STARTUP OPPORTUNITIES

08.11.2024 — Online





"Blue Economy - Maritime Startup Opportunities"
08.11.2024

Sathyabama TBI organized "Blue Economy – Maritime Startup Opportunities" program on 8 November featuring Mr. Mohana Krishnan Ethirajulu, Founder & CEO - Xera Robotics, as the keynote speaker. The event attracted over 30 innovative startups, exploring new opportunities within the maritime sector and fostering collaboration in the Blue Economy.

PANEL DISCUSSION ON STRUGGLES OF MSME'S TO BECOME STARTUPS

20.11.2024 — Online

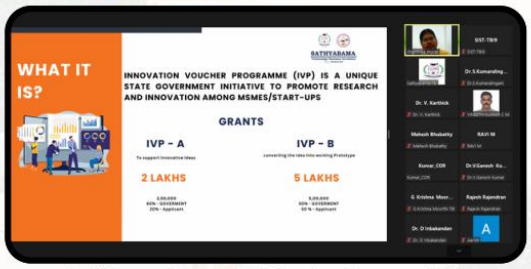


Panel discussion on Struggles of MSME's to become startups
20.11.2024

Sathyabama TBI Conducted an Online panel discussion focused on the challenges MSMEs face in evolving into startups on 20 November 2024. Our esteemed speakers included Mr. Brabasuthan M, Lead-Sathyabama TBI and Mr. Krishna Moorthi G, Associate - Sathyabama TBI. The event facilitated a connection between industry experts and entrepreneurs, enabling the exchange of insights and the development of innovative solutions for MSME growth.

INSIGHTS ON INNOVATION VOUCHER PROGRAM (IVP)

04.12.2024 — Online



Insights on Innovation Voucher Program (IVP)
04.12.2024

Sathyabama Technology Business Incubator hosted an insightful session on the "Insights on Innovation Voucher Program (IVP)" on 4 December, 2024. The session, led by Ms. Chandrika Murali, Associate - Investments - Sathyabama TBI, provided valuable insights on how businesses can leverage the IVP to drive innovation and growth

Programs / Events

INSIGHTS ON INNOVATION VOUCHER PROGRAM

04.02.2025 TBI Training hall





Insights on Innovation Voucher Program
04.02.2025

Sathyabama Technology Business Incubator organized “Insights on Innovation Voucher Program” on 4 February 2025 for the students of the Department of Chemical Engineering. Ms. Chandrika M, Associate – Investments, Sathyabama TBI, explained how IVP supports students by providing financial assistance for developing innovative projects and research initiatives.

TECHPRENEURSHIP FOR YOUNG MINDS

05.03.2025 TBI Training hall





Techpreneurship for Young Minds
05.03.2025

Sathyabama Technology Business Incubator, in association with the Department of Computer Science and Engineering, organized a Skill development program titled "Techpreneurship for Young Minds" on 5 March 2025. Dr. Rahul Kapoor, Founder – Turnip Innovations as resource person, interacted with students on the intersection of technology and entrepreneurship. Nearly 50 students participated, gained practical knowledge to drive innovation and entrepreneurship.

Programs / Events

FUTURE FOUNDERS FORUM 1.0

25.02.2025 TBI Training hall



Future Founders Forum 1.0
25.02.2025

Sathyabama Technology Business Incubator organized the ”Future Founders Forum 1.0" on 25 February 2025, with 60 students of various Engineering departments. Mr. Brabasuthan M, Lead – Incubation, TBI, and Ms. Chandrika Murali, Associate – Investments, Sathyabama TBI, delivered lectures on entrepreneurship and innovation. The forum served as a platform to help aspiring innovators transform their ideas into impactful ventures. The session covered opportunities, challenges, and resources available for student entrepreneurs.

FUTURE FOUNDERS FORUM 2.0

04.03.2025 TBI Training hall



Future Founders Forum 2.0
04.03.2025

Sathyabama Technology Business Incubator, in association with the Department of Electrical and Electronics Engineering, organized “Future Founders Forum 2.0”on 4 March 2025. Dr. T. Seshadri, Advisor – TBI, and Ms. Chandrika M, Associate – Investments, TBI, delivered a lecture on entrepreneurial opportunities and startup resources. The session emphasized the importance of innovation, funding access, and business development, equipping students with the knowledge to transform their ideas into successful ventures.

Programs / Events

IVAL (IDEATE, VALIDATE, ASPIRE, LEAD)

25.02.2025 — TBI Training hall



IVAL (Ideate, Validate, Aspire, Lead)
11.03.2025

Sathyabama Technology Business Incubator organized IVAL (Ideate, Validate, Aspire, Lead) to foster innovation, celebrate women-led startups, and provide a platform for knowledge-sharing. The event featured distinguished women entrepreneurs, Ms. Shraddha Agarwal (Founder – AuralApp), Ms. Balavigneshwari S (Founder – Al-Zira Technology), and Ms. Keerthanaa Vijayanand (Founder – Citrozyme Biotech), as resource persons. A panel discussion and product showcase allowed participants to explore groundbreaking ideas and solutions.

EMPOWERING WOMEN IN LAW & ENTREPRENEURSHIP

07.03.2025 — TBI Training hall





Empowering Women in Law & Entrepreneurship
07.03.2025

Women's Day celebration with an exclusive session on "Empowering Women in Law & Entrepreneurship" was organized by Sathyabama Technology Business Incubator for the School of Law . The session was led by Ms. Chandrika M, Associate – Investments, and Ms. Tamilselvi, Associate – Outreach, Sathyabama TBI. The session focused on the legal aspects of entrepreneurship, government schemes, and funding opportunities for women-led startups.

Programs / Events

BUILDING ENTREPRENEURIAL THINKING & CULTURE

12.03.2025 TBI Training hall





Building Entrepreneurial Thinking & Culture
12.03.2025

Sathyabama Technology Business Incubator organized a Startup Awareness Session – "Building Entrepreneurial Thinking & Culture" for the Department of Mechatronics. The session featured Mr. Brabasuthan M on Innovation Strategy, Ms. M. Chandrika on Exploring Market Insights: Research Techniques & Strategies, and Mr. G. Krishna Moorthi, conducted a short tour of TBI. The program aimed to instill an entrepreneurial mindset and provide insights into market research and startup opportunities.

ENTREPRENEURSHIP DEVELOPMENT PROGRAM

24.03.2025 -28.03.2025 TBI Training hall





Future Founders Forum 2.0
04.03.2025

Sathyabama Technology Business Incubator, in collaboration with the Centre for Ocean Research, successfully organized the "Startup: Learn, Innovate, Succeed" program from 24th to 28th March 2025. This Entrepreneurship Development Program (EDP) aimed to equip students with hands-on experience in design thinking, business modeling, prototyping, and commercialization. A total of 30 students participated in the program, gaining invaluable insights and practical skills in the startup ecosystem.

Value-added course

"LEARN TO INNOVATE"

24.03.2025 -28.03.2025 TBI Training hall



Value-added course - Learn to Innovate
27.08.2024 - 09.09.2024

Sathyabama Technology Business Incubator successfully conducted its latest Value-added course - "Learn to Innovate" held from 27th August , 2024 to 09th September, 2024. The course convenor Mr. G. Krishnamoorthy, Associate (Industry Relations) engaged 11 participants from the School of Mechanical, the School of Electrical and Electronics, and the School of Computing. The Program was designed to equip participants with essential innovation skills and aimed to prepare participants for the challenges of the evolving business landscape by fostering creativity and growth.

TECHNOLOGY TRANSFER

24.03.2025 -28.03.2025 TBI Training hall



Value-added course - Technology Transfer
27.08.2024 - 09.09.2024

Sathyabama TBI conducted the value-added course, "Technology Transfer & Commercialization".The session included three theory sessions and one practical session, equipping participants with insights into IP management.

Industrial Collabrations

SOFTGEL HEALTHCARE TEAM WITH SATHYABAMA TBI

15.06.2024 NFCMR



Softgel Healthcare Team with Sathyabama TBI 15.06.2024

Softgel Healthcare Team, Dr. Vijay Alagappan, Managing Director - Softgel Healthcare, Mr. Yuvaraj, R&D - Head, and Ms. Sripriya, Regulatory Head, visited Sathyabama TBI and National Facility for Coastal and Marine Research. During the visit, the team explored advanced laboratory facilities, engaged in productive discussions with Sathyabama TBI researchers, shared knowledge on potential collaboration opportunities.

AMBATTUR INDUSTRIAL ESTATE MANUFACTURER'S ASSOCIATION VISIT

15.06.2024 NFCMR



Sri. G. Aravind - President AIEMA sharing Momento with Sathyabama TBI Team on 14.05.2024

Sathyabama TBI team visited AIEMA (Ambattur Industrial Estate Manufacturer's Association) and had an interaction with Sri. G. Aravind - President AIEMA, discussing ways to nurture startups among SMEs. The collaboration aims to foster innovation and provide support for Small and Medium Industries.

AMBATTUR INDUSTRIAL ESTATE MANUFACTURER'S ASSOCIATION VISIT

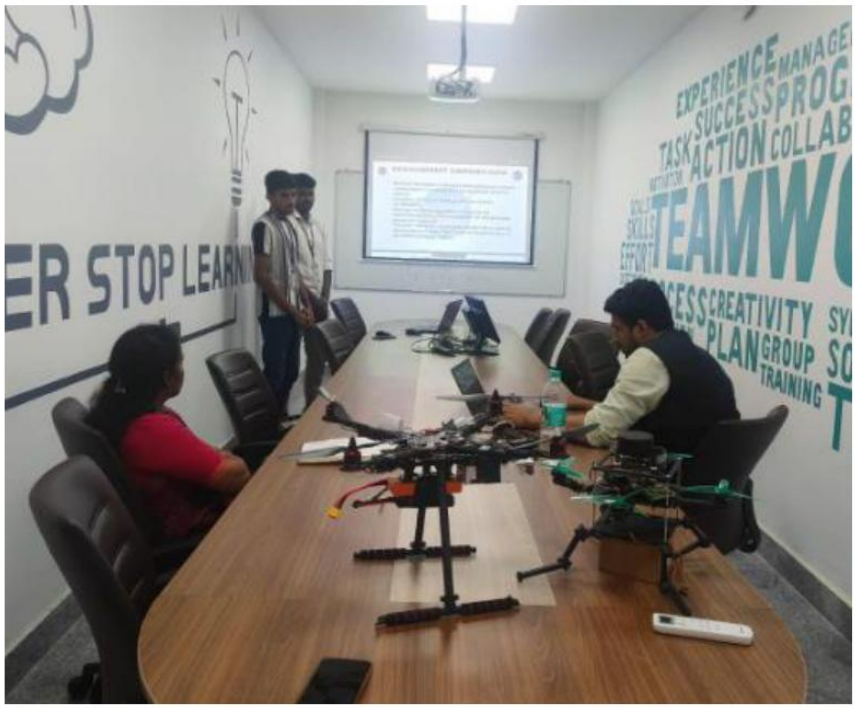
24.05.2024 Softgel Healthcare, Chennai



Sathyabama Team with Dr. Vijay Alagappan, Managing Director - Softgel Healthcare on 24.05.2024

Sathyabama TBI team met Dr. Vijay Alagappan, Managing Director - Softgel Healthcare. The discussion focused on potential research collaborations between industry and academia, exploring the consultancy services offered by Sathyabama Institute of Science and Technology.

The Pitching Assessment for startup was organized by the startup cell to help startup founders refine and elevate their pitch delivery through expert guidance and real-time feedback on 8.4.2025 Founders had the opportunity to present their startup pitches in front of Panel member Mr.Naved Ahmed, Sr. Regional Manager, Wadhwani Foundation. Each presentation was followed by constructive critique, focusing on key elements such as clarity of the value proposition, business viability, and presentation skills.The event emphasized interactive learning, with breakout sessions and one-on-one coaching, enabling founders to identify strengths and weakness in marketing strategies.



Startup cell of Sathyabama Institute of Science and organized the workshop on "Startup Pitch Decks" on 20.3.2025. Ms.Fatheen, founder and CEO ,Bluespoon Pvt Ltd and Dr.Mathivanan, Professor,CSE evaluated the business ideas of startups. They assessed the the clarity and Conviction of the Pitch, Strength of the Business Model, Market Opportunity and Growth Potential, Competitive Advantage and Unique Value Proposition and Financial Projections . This event focused on improving pitch quality and how to create or refine an effective and engaging pitch deck and pitch with confidence for the startups.

Products Developed to Industries and non-government agencies

Few of the product developed for the industries and other agencies are listed below, in total 12 number of products are developed and few of the product which are not under non-disclosure agreement are listed below

Dr. A. Sivasangari's research initiatives at Sathyabama Institute of Science and Technology focus on developing smart wearable healthcare technologies for continuous patient monitoring. The institute holds a granted Indian patent titled *"Smart Wearable Band for Patients Health Monitoring System"* (Patent No. 552401, granted on 15 October 2024). The research integrates IoT-enabled sensors and AI-based signal processing to monitor vital parameters such as heart rate, body temperature and SpO_2, enabling real-time health tracking, remote monitoring and timely medical alerts. The associated research also explores wearable EEG-based systems for early epilepsy seizure prediction and detection, supporting improved patient safety and healthcare management.

Dr. P. Grace Kanmani Prince spearheaded the development of a Rural Non-Invasive Primary Health Kiosk at Sathyabama Institute of Science and Technology, supported by ₹1 lakh .The work aimed to provide affordable, accessible and non-invasive primary health screening for rural communities through point-of-care health monitoring. Building on this research, she founded HinnovX Pvt. Ltd. to develop cost-effective medical diagnostic and screening technologies.

The Real-Time Face Mask Detection System is an Artificial Intelligence (AI)-based technology developed using Convolutional Neural Networks (CNN) to automatically identify individuals wearing or not wearing face masks. The system utilizes image processing and deep learning techniques to analyze visual inputs and detect face masks in real time. This technology can be applied in public places, educational institutions, healthcare facilities and workplaces to support automated monitoring and promote preventive healthcare practices. It aims to reduce manual monitoring efforts and contribute to public health and safety. This work was led by **Dr. M. S. Godwin Premi** and received funding of ₹4.15 lakhs from FICCI.

The AI-Powered Non-Invasive Point-of-Care Device is a technology development initiative designed to detect hormonal variations and predict menstrual cycles among physically and mentally challenged women. The proposed system integrates Artificial Intelligence with non-invasive sensing technologies to facilitate accessible and convenient menstrual health monitoring. It aims to address the challenges associated with menstrual health management among women with disabilities by providing technology-assisted monitoring and predictive information. This initiative promotes inclusive healthcare, improves accessibility to health-monitoring solutions and supports women's health and independence. This work is led by **Dr. Mercy Paul Selvan,** along with the co-investigators Dr. Grace Kanmani Prince, Dr. Bethany Janney, Dr. Krupakar Parthasarathy, Dr. S. Jancy, Dr. A. Viji Amutha Mary and Dr. Sam Ebenezar, with funding of ₹24.95402 lakhs.

Dr. A. Sivasangari of Sathyabama Institute of Science and Technology, Chennai, is involved in research and innovation initiatives focused on developing AI- and IoT-enabled wearable technologies for epilepsy seizure prediction and detection. She has served as Principal Investigator

of the research titled "Smart Wearable Epilepsy Seizure Prediction and Detection Device." The research aims to develop comfortable, compact, and intelligent wearable solutions while improving prediction accuracy and reducing false alarms. She has also contributed to mentoring student startup initiatives related to automated epilepsy seizure prediction through Sathyabama's innovation ecosystem. These efforts highlight the potential of AI, IoT, and wearable healthcare technologies in advancing accessible and personalized epilepsy monitoring solutions.

The Smart Navigation System is an assistive technology initiative designed to support visually impaired individuals in navigating their surroundings independently and safely. The proposed system focuses on developing an intelligent navigation solution that assists users in identifying obstacles and understanding their surrounding environment. By integrating smart technologies, the system aims to improve mobility, enhance personal safety and reduce dependency on others during navigation. This initiative promotes accessibility, independence and social inclusion by addressing the mobility challenges faced by visually impaired individuals. This work is undertaken by **Dr. Bharathi and Dr. Albert Mayan**, with funding support of ₹21.52737 lakhs, as recorded in the institutional data.

The Real-Time Plasma Localization System focuses on identifying and localizing plasma regions from Tokamak plasma images in the SST-1 experimental facility. The proposed technology utilizes image processing, computer vision and intelligent computational techniques to analyze plasma images and determine plasma positions within the Tokamak chamber. Accurate plasma localization is an important requirement in fusion research, as it supports experimental monitoring and analysis. The system aims to contribute to advanced computational techniques for plasma image analysis and strengthen research in fusion energy technology. This work is led by **Dr. M. S. Godwin Premi** and received funding of ₹21.875 lakhs.

The development and fabrication of advanced electrode architectures for efficient hydrogen production using Solid Oxide Electrolysis Cells (SOECs) contribute to the advancement of clean and sustainable energy technologies. The developed electrode structures are intended to enhance electrochemical activity, operational stability and hydrogen production efficiency. SOEC technology utilizes electrical energy to split water vapour into hydrogen and oxygen at elevated temperatures, providing a promising approach for clean hydrogen generation. The advancement of electrode materials and architectures supports improved hydrogen production performance and promotes the adoption of sustainable energy solutions. This technological development contributes to reducing dependence on conventional fossil fuels, supporting low-carbon energy systems and addressing global energy sustainability challenges. The research is led by **Dr. Ajith Kumar (Principal Investigator)** and **Dr. Gopika (Co-Investigator)**, with financial support of **₹23.93673 lakhs**.

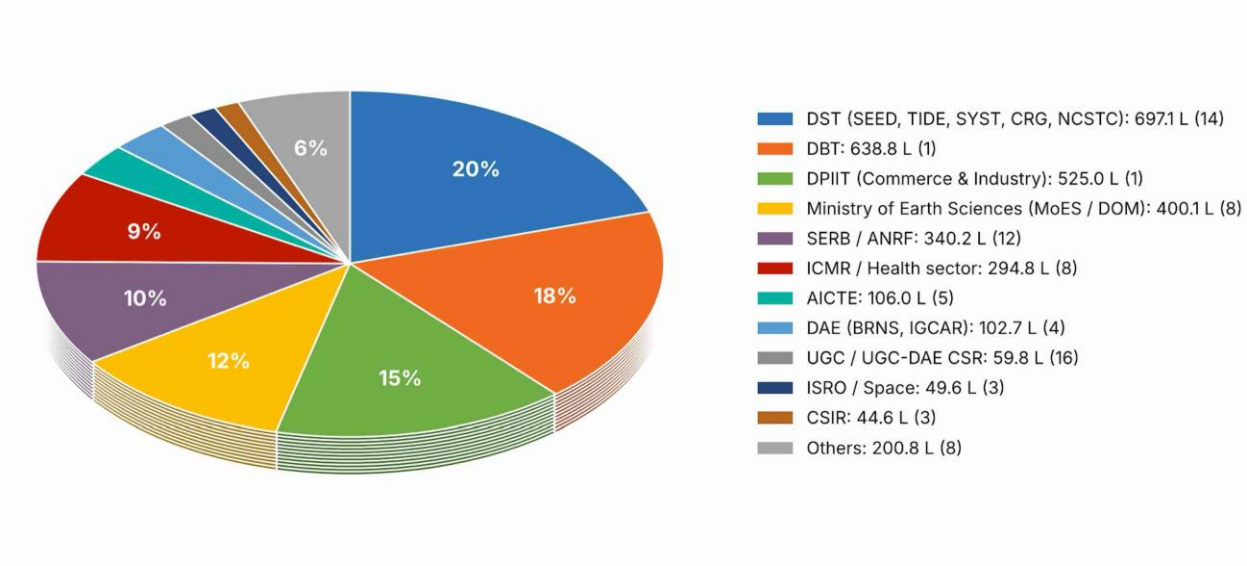
The design and fabrication of high-efficiency large-area Perovskite Solar Modules contribute to the development of advanced photovoltaic technologies for sustainable solar energy generation. Perovskite-based solar technology offers the potential to develop efficient, lightweight and cost-effective solar energy conversion systems. The development of advanced perovskite materials and innovative device fabrication techniques aims to enhance solar module performance and energy conversion efficiency. This technology supports the generation of clean and renewable electricity, reduces dependence on conventional fossil fuels and promotes sustainable energy utilization. The

advancement of large-area perovskite solar modules contributes to renewable energy research, technological innovation and the transition towards a low-carbon and environmentally sustainable future. The research is led by **Dr. Murugadoss**, with financial support of **₹18.3 lakhs** for a duration of three years.

The development of tunable emissive, eco-friendly semiconducting ink contributes to advancements in functional materials and semiconductor-based security technologies for anti-counterfeit applications. The innovative ink material incorporates controllable light-emission properties, making it suitable for potential applications in security printing, product authentication and counterfeit prevention. This technology provides opportunities to develop advanced security features for protecting valuable products, documents and commercial materials against duplication and unauthorized reproduction. The development of environmentally friendly functional materials promotes sustainable material innovation, reduces the environmental impact associated with conventional materials and encourages responsible manufacturing practices. This research also supports advancements in semiconductor technology and innovative solutions for product security and authentication. The research is led by **Dr. Subhenjit Hazra**, with financial support of **₹1.35 lakhs** for a duration of three years.

The development of magnetically retrievable porous nanohybrids contributes to the advancement of smart materials for the sensing and separation of uranyl ions present in radioactive waste. These advanced nanomaterials combine magnetic properties with porous structures to facilitate the detection, adsorption and removal of radioactive contaminants from aqueous waste streams. Their magnetic retrieval capability enables convenient separation and recovery of the nanomaterials after the treatment process, offering potential benefits for efficient and sustainable waste management. This technology supports the development of innovative nanotechnology-based solutions for the treatment of radioactive wastewater, environmental protection and safe management of hazardous contaminants. The research contributes to reducing environmental pollution, improving water quality and promoting responsible waste treatment practices. The research is led by **Dr. Subhenjit Hazra and Dr. Kuppusami**, with financial support of **₹8.05556 lakhs** for a duration of three years.

The development of an Antitremor Supporting System for Parkinson's patients contributes to the advancement of assistive healthcare technologies aimed at improving the quality of life of individuals affected by Parkinson's disease. The proposed system is intended to provide support in managing tremor-related difficulties and improving the ability of patients to perform routine daily activities. The development of this technology emphasizes the application of engineering innovation to address healthcare challenges associated with neurological disorders. It aims to enhance patient independence, support daily living activities and promote improved well-being through technology-assisted healthcare solutions. This initiative encourages the development of innovative assistive devices and inclusive healthcare technologies for individuals with special medical needs. The research is led by **Dr. Premkumar (Principal Investigator)**, with financial support of **₹23.41 lakhs** for a duration of three years.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DST (SEED, TIDE, SYST, CRG, NCSTC): 697.1 L (14)
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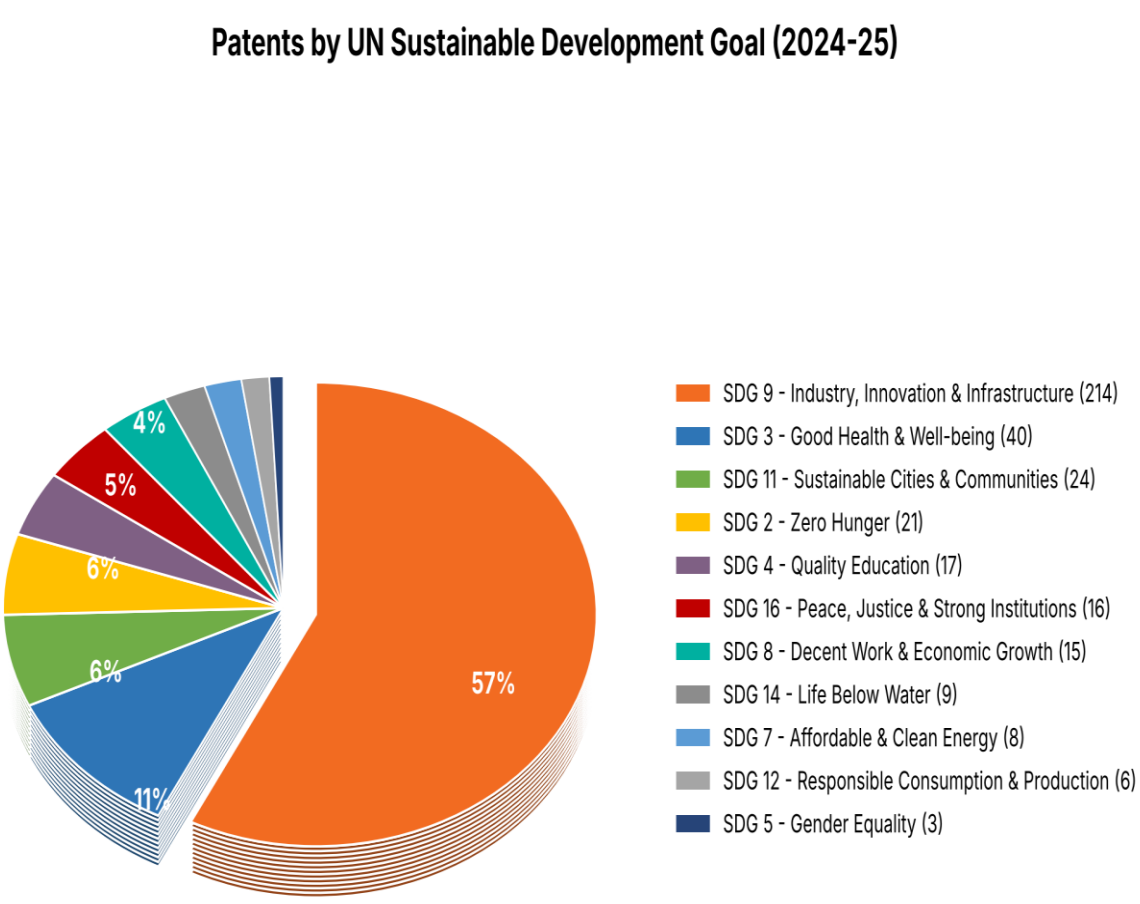

SDG 9 (Industry, Innovation & Infrastructure) highlighted

Students and faculty are regularly motivated to file their products as patents, and this has built a broad, innovation-driven portfolio. Each patent was assigned one primary SDG based on its title and subject matter, with SDG 9 (Industry, Innovation & Infrastructure) highlighted as the innovation-focused goal. SDG 9 leads clearly with 214 patents, about 57% of the total, reflecting a strong emphasis on engineering innovation, automation systems and assistive devices. SDG 3 (Good Health & Well-being) follows with 40 patents, about 11%, covering medical devices, diagnostics and patient-care solutions. SDG 11 (Sustainable Cities & Communities) and SDG 2 (Zero Hunger) contribute 24 and 21 patents respectively, each about 6%, through work on infrastructure, agriculture and food. SDG 4 (Quality Education), SDG 16 (Peace, Justice & Strong Institutions) and SDG 8 (Decent Work & Economic Growth) each account for roughly 4-5%, covering education technology, security and fraud detection, and business studies. The remaining goals (SDG 14, 7, 12 and 5) together make up under 7%, which shows room to grow in marine research, clean energy, responsible production and gender-focused innovation. Overall, the strong participation of students and faculty has produced a portfolio that is innovation- and infrastructure-driven, with meaningful contributions to health, urban development and food security.