



ANNUAL PROGRESS REPORT FOR SDG 9 – 2024



17.3.9. University publishes progress against SDG 9

Sustainable Development Goal 9 focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. It emphasizes the importance of modern, reliable, and sustainable infrastructure to support economic development and human well-being. SDG 9 encourages investment in clean technologies, research, and innovation to drive sustainable growth and create job opportunities. By strengthening industries, enhancing access to information and communication technologies, and promoting equitable industrial development, this goal helps build resilient economies and supports progress toward a more inclusive and sustainable future.

SPIHER places a strong emphasis on research and development (R&D) as a means to drive technological innovation. Our research initiatives focus on sustainable technologies, renewable energy solutions, and digital innovations that can enhance industrial productivity while minimizing environmental impacts. The university collaborates with industries and governmental bodies to translate research into practical solutions that support sustainable industrialization.

Research Article published under SDG 9

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SUSTAINABLE FRAUD DETECTION IN GREEN FINANCE EMPOWERED WITH MACHINE LEARNING APPROACH

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Abstract—Prior to machine learning, businesses would employ a rule-based strategy to identify fraud by examining recurring and obvious indicators. Countless fraud scenarios are executed by pure rule-based algorithms, which are personally crafted by an individual. The goal of the paper is to create precise deep learning and machine learning models for the Green Finance fraud detection. Fraud in real-time transactions cannot be detected by conventional rule-based methods. The study tackles the problem of unbalanced data by using the PaySim dataset, which replicates mobile transactions. The performance of a number of algorithms is assessed, including Random Forests, Recurrent Neural Networks, and K-Nearest Neighbors. To uncover hidden patterns in user transactions, the application of long short-term memory models and artificial neural networks is investigated. The study talks about difficulties including data cleaning and tweaking hyperparameters. The results support the development of more precise and effective fraud detection systems, which helps Green Finance lower losses and preserve consumer confidence.

Keywords: Classification of fraud versus non-fraud, Grouping Identification of anomalies, Amount of transaction, Frequency of transactions.

2024 Book Chapters → SDG Mapping

Sl. No	Faculty	Title of Book Chapter	Department	Publisher	SDG(s)	Justification
1	Dr. S. Brindha	Design of Smart Vehicle to Detect Unauthorized Access and Theft Detection	Computer Science	B P International	SDG 9 (Industry, Innovation), SDG 11 (Sustainable Cities)	Smart transport security enhances safe urban mobility.
2	Dr. S. Brindha	Enhancing Security in Cross-Border IoT Transactions Through Predictive ML Using BI-GRU	Computer Science	Iterative International Publishers	SDG 9, SDG 16 (Peace, Justice & Strong Institutions)	Strengthens cybersecurity and trust in digital infrastructure.
3	Dr. S. Brindha	Cloud Computing Security by DEVSECOPS	Computer Science	Iterative International Publishers	SDG 9	Promotes secure and resilient ICT systems.
4	Dr. J. Arunkumar	Design & Manufacturing of 3D Printed Sensors for Biomedical Applications	EEE	Springer Singapore	SDG 3 (Good Health), SDG 9	Biomedical innovation for healthcare.
5	Dr. S. Smilee Bose	Impact of AI in Entrepreneurship in India	Management Studies	Innovation Online Training Academy	SDG 8, SDG 9	AI-driven entrepreneurship fosters innovation and growth.
6	Dr. S. Smilee Bose	AI in Entrepreneurship : Opportunities & Challenges	Management Studies	Innovation Online Training Academy	SDG 8, SDG 9	Encourages sustainable business innovation.
7	Dr. S. Smilee Bose	ICT in Development of Women Entrepreneurship	Management Studies	Bharti Publications	SDG 5, SDG 9	ICT empowers women-led enterprises.
8	Dr. K. Gurusami	Nanocoatings in Medicine: Revolutionizing Healthcare	Mechanical Engineering	IGI Global	SDG 3, SDG 9	Advances medical technology for

Sl. No	Faculty	Title of Book Chapter	Department	Publisher	SDG(s)	Justification
						precision healthcare.
9	Dr. A. Loganathan	AI in Agriculture Sector	Economics	Indian Economic Association	SDG 2 (Zero Hunger), SDG 9	AI improves agricultural productivity and sustainability.
10	Dr. G. Kannan	Stakeholder Perspectives in Healthcare Innovation	Management Studies	IGI Global	SDG 3, SDG 9	Encourages inclusive healthcare innovation.

Mapping of 2024 Patents to SDGs

Sl. No	Patent Title	Department	Date (2024)	Relevant SDG(s)	Justification
1	AI-based Shopping Assistance Robot	Computer Applications	19.03.2024	SDG 8 (Decent Work & Economic Growth), SDG 9 (Industry, Innovation)	Supports retail innovation and consumer empowerment.
2	Device for Scanning Vehicles at Toll Gate	Computer Applications	04.04.2024	SDG 9, SDG 11	Improves transport efficiency and reduces congestion.
3	AI-based Animal Tissue Decellularization Device	Microbiology	02.04.2024	SDG 3, SDG 9	Supports biomedical innovation for regenerative medicine.
4	Visual Fault Locator (VFL) for Fiber Cable	Mechanical Engineering	09.07.2024	SDG 9	Improves ICT infrastructure reliability.
5	Object Detection Solar Powered Billboard	Mechanical Engineering	04.07.2024	SDG 7, SDG 9	Smart infrastructure powered by renewable energy.



Sl. No	Patent Title	Department	Date (2024)	Relevant SDG(s)	Justification
6	Portable IoT-enabled Brick Making Machine	Civil Engineering	16.07.2024	SDG 9, SDG 11	Sustainable construction technology.
7	IoT-based Smart Robot for Air Conditioner Duct Cleaning	Mechanical Engineering	02.08.2024	SDG 3, SDG 9	Improves indoor air quality and maintenance efficiency.
8	Automated Composite Mortar Gun	Civil Engineering	08.08.2024	SDG 9, SDG 11	Construction automation for efficiency.
9	AI & ML-based Stock Market Prediction Computing Device	CSE	29.05.2024	SDG 8, SDG 9	Financial innovation and economic growth.
10	Robotic Device for Agricultural & Food Production	Biochemistry	11.09.2024	SDG 2, SDG 9	Enhances agricultural productivity.
11	Efficient Power Distribution Unit with Smart Energy Monitoring	EEE	25.09.2024	SDG 7, SDG 9	Smart grid innovation.
12	Blockchain-based Access Control Device for Smart Home	Computer Applications	04.11.2024	SDG 9, SDG 11	Secure smart home innovation.



INSTITUTION'S INNOVATION COUNCIL - SPIHER

IIC CALENDAR YEAR: 2024

NEWSLETTER



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Vision:

The vision is to foster a culture of innovation, entrepreneurship, and research by empowering students and faculty to generate innovative solutions for societal and industrial challenges.

Goal:



Objectives:



Mission:

The mission is to:

- Create and nurture an ecosystem that encourages creativity, critical thinking, and design thinking.
- Promote interdisciplinary research, ideation, and innovation-driven projects.
- Strengthen industry–institute linkages for mentoring, funding, and technology transfer.
- Support student and faculty startups through structured pre-incubation and incubation facilities.

Journey:

- **2018** – Establishment of the Institute Innovation Council under the initiative of MHRD’s Innovation Cell.
- **2019–2020** – Organization of awareness programs, innovation contests, and workshops on entrepreneurship.
- **2021–2022** – Expansion of activities with faculty/student Innovation Ambassadors and industry collaborations.
- **2023–2024** – Launch of student startup initiatives, hackathons, and prototype development activities.
- **2025 (Present Status)** – IIC functions as a dynamic platform for mentoring, startup facilitation, and interdisciplinary innovation projects, with active participation in National-level programs.

Diversified Representation:



The SPIHER Innovation Council is constituted with representation from various sectors and disciplines, ensuring inclusivity and diversity:

- **Industry Experts:** Entrepreneurs, startup mentors, and corporate professionals.
- **Faculty Members:** Representatives from Engineering, Science, Management, and Humanities.
- **Student Representatives:** Innovators and entrepreneurs from different academic departments.
- **Innovation Ambassadors:** Faculty and students trained under MIC–IIC.
- **Departments/Units:** Involvement of multiple disciplines including Arts, Biomedical, Civil, Computer Science, Computer Applications, Electrical, Electronics, Life Sciences, Mechanical, Management Studies and Science.
- **External Members:** Alumni entrepreneurs and experts from incubation centers/innovation hubs.

Key Functionaries:

The SPIHER Innovation Council is guided by the following key functionaries, who ensure the effective planning, coordination, and execution of innovation and entrepreneurship-related activities.

- **President – Dr. N. Malmurugan, Vice Chancellor**
Provides overall leadership, ensures alignment with institutional vision, and guides all IIC initiatives.
- **Vice President – Dr. L. Mahesh Kumar, Registrar**
Assists the President in policy formulation, strategic planning, and coordination with internal and external stakeholders.
- **Convenor – Dr. N. Rajeswari, Deputy Dean-Industry Relations**
Responsible for day-to-day functioning, documentation, and coordination with MIC–IIC.
- **Coordinators**
 - **Start-up Activity Coordinator – Mr. S.R.Jayaraj Pandian**
(Supports start-up ecosystem, incubation, and entrepreneurship activities)
 - **Internship Activity Coordinator – Dr.B.Hemalatha & Dr.Amala**
(Facilitates student internships and industry interactions)
 - **IPR Coordinator – Dr.S.Chandra Mohan & Dr Smilee Bose**
(Promotes Intellectual Property Rights awareness and innovation practices)
 - **Innovation Coordinator: Dr. B.Shanthini & Dr. S. Brindha**
(Promotes innovation and foster creative practices)
 - **Social media & Publicity Coordinator – Dr.R.Subhashini & Ms.R.Nirmala**
(Manages outreach, visibility, and promotion of IIC events)
 - **NIRF/ARIIA/Impact Coordinator – Dr.R.Rani Hemamalini & Dr.R.Latha**
(Oversees data mgt., reporting, and ranking-related activities)
 - **YUKTHI Coordinator – Dr.S.Tamilarasi & Dr.S.Ganesh Kumar**
(Promotes innovation ranking and supports idea evaluation)
 - **KAPILA Coordinator – Dr.N.D.Bobby, Dr.M.Suresh**
(Promotes patent awareness and guides faculty and students in IPR filing)

IIC Council Meeting Proceedings

All four quarterly IIC Council meetings were convened, bringing together coordinators and members from various departments to collectively discuss, plan, and review activities in the domains of innovation, entrepreneurship, and IPR. These meetings served as a platform for Collaboration, Idea Exchange, and Progress Evaluation, ensuring that IIC initiatives were effectively implemented and aligned with the Institute’s vision of fostering an Innovation-driven Ecosystem.



Infrastructure of Pre-Incubation & Incubation engaged in promotion of Innovation and Entrepreneurship in the campus

Technology Business Incubator (In-charge: Mr.S. JeyaRaj Pandian) &

MSME Business Incubator (In-charge: Dr. B. Hemalatha)

- Manage the allocation and maintenance of incubation space.
- Screen and select startups for incubation based on set criteria.
- Facilitate mentorship programs and workshops for incubated startups.
- Assist startups in accessing funding opportunities and connecting with investors
- Monitor the progress of incubated startups and provide ongoing support

IPR Facilitation Center (In-charge: Dr. D. Chandra Mohan)

- Educate students and faculty on IPR and Organize workshops and seminars to raise awareness about IPR protection.
- Assist in identifying and assessing potential IP in projects.
- Provide guidance on the process of filing patents, copyrights, and trademarks.
- Stay updated on IPR laws and regulations and advises the college accordingly.
- IPR Cell Facilitate patent draft and filing support

I&E Collaborations

The following collaborations have been established with leading organizations to leverage Institutional and Industrial resources, thereby equipping students with domain-specific skills, experiential learning opportunities, and diverse pathways in innovation, research, and entrepreneurship

S.No	Collaborated Agency Name
1	Noob Tron Pvt. Ltd., Chennai
2	Enbott Technologies Pvt Ltd, Chennai
3	Mindson Global Solutions Private Limited
4	Shree Hari Industries, Chennai
5	Garuda Aerospace Private Limited, Chennai
6	Temple India, Chennai
7	Wolfertech, Chennai
8	Narpavi Enterprises, Chennai
9	Charger Motogen Energy (OPC) Private Limited, Chennai
10	Hireface Communication Private Limited
11	Intrino Robotics And Technology Private Limited, Chennai
12	Altruisty

13	Hemonexus
14	Tena Healthcare
15	Fussilade Innotech Ventures Company, Chennai
16	Wastabin Ventures Private Limited, Chennai
17	Narchuvai Foods, Chennai
18	Instatenders Solution Private Limited, Chennai
19	Techknots Academy, Chennai
20	B-Accuracy Infotech (Business Intelligence (Bi) ERP Software
21	Dd Infotech Pvt. Ltd. , Chennai
22	K N Architects Abd Builders Chennai Private Limited, Chennai
23	Ace International Private Limited
24	Go Tech Ai Software Training and Placement Institute
25	Center of Excellence in Digital Forensics, Chennai
26	Kriatec Service Private Limited, Chennai
27	Techknots Academy Llp, Chennai
28	Dhruti Charitable Trust, Chennai
29	Vectra Technosoft Private Limited, Chennai
30	Siddhanta Knowledge Foundation, Chennai
31	R4 Consulting India, Chennai

ACHIEVEMENT HIGHLIGHTS – IIC YEAR 2024-2025

The following Pareto diagram provides an overview of Activity Performance Consistency and the Areas of Deviation.

Quarter	IIC Calendar Activity	MIC driven Activity	Celebration Activity	Self-driven Activity	Total
Quarter I	3 / 8	1 / 1	0 / 3	4	8
Quarter II	7 / 8	0 / 0	3 / 5	19	29
Quarter III	8 / 8	7 / 7	3 / 4	22	40

Quarter IV	8 / 8	2 / 2	4 / 4	33	47
Total	26	10	10	78	124

GAP ANALYSIS OF ACTIVITY

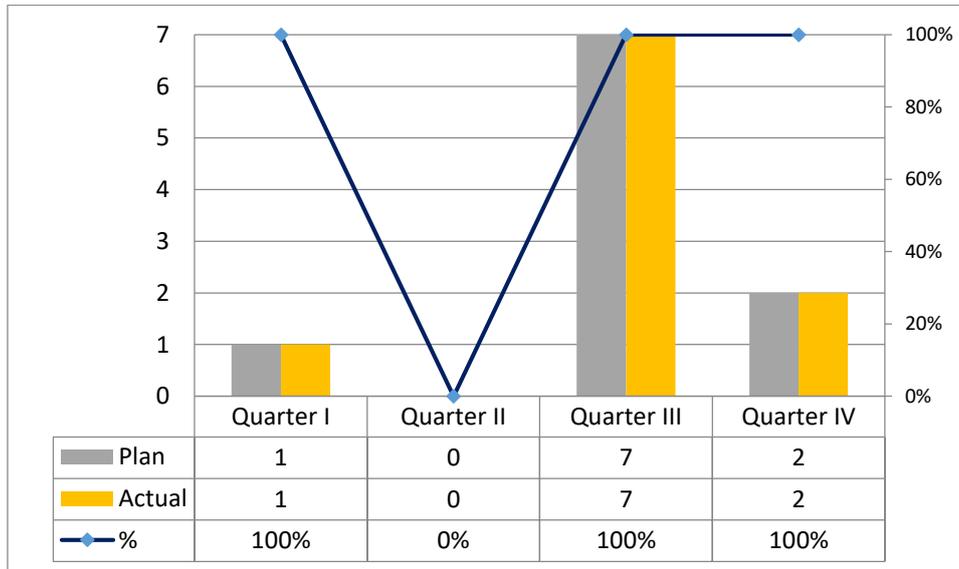


Figure 1: MIC Driven Activity

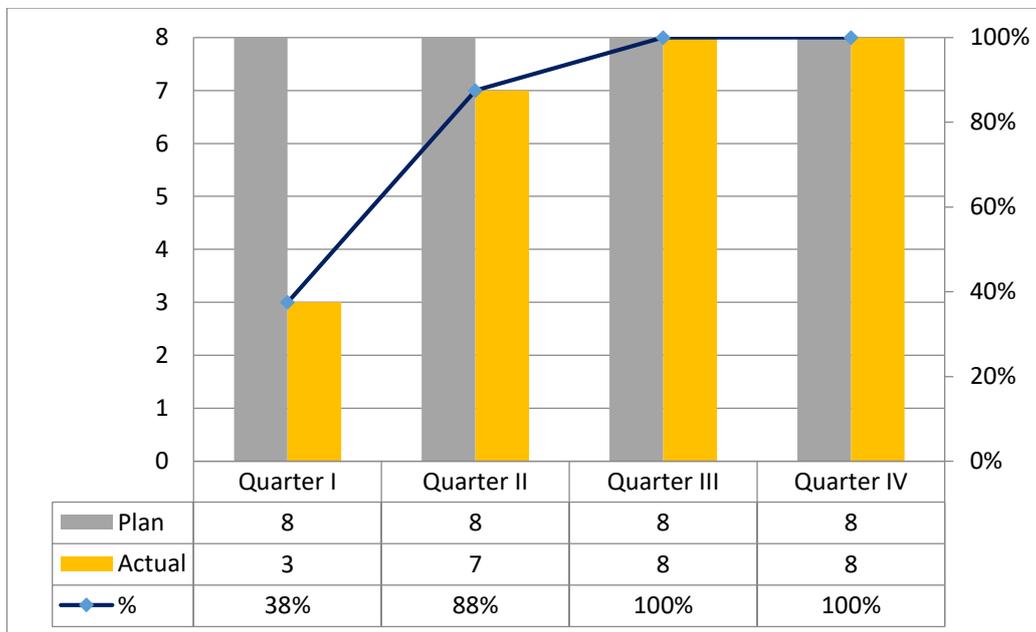


Figure 2: IIC Calendar Activity

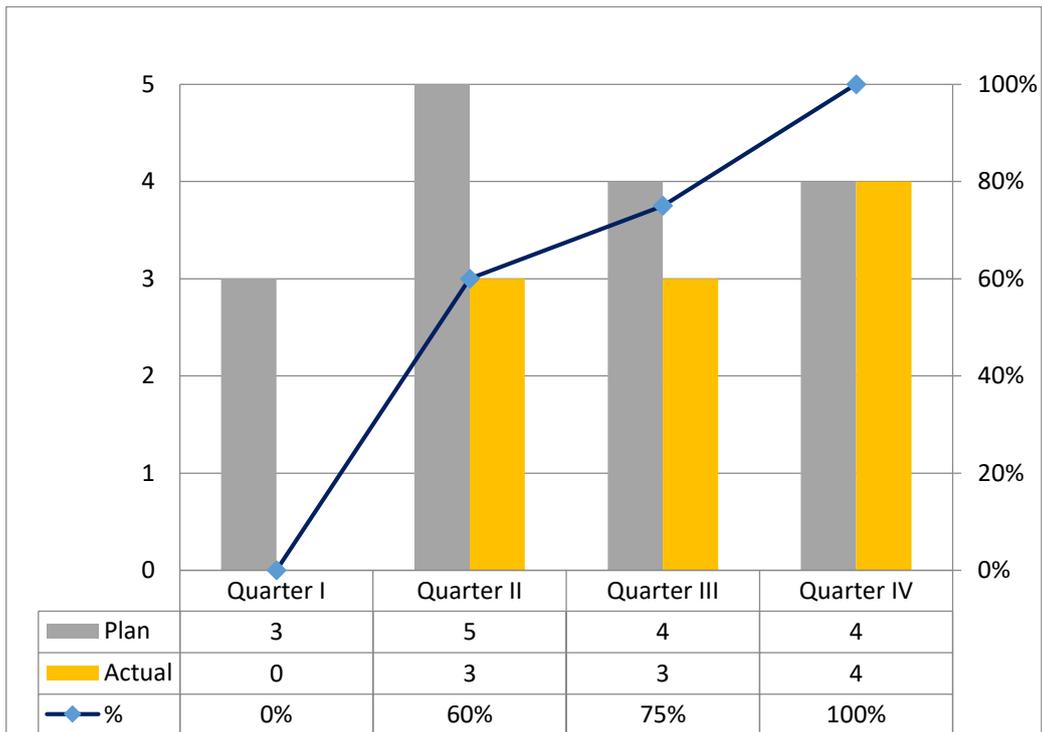


Figure 3: Celebration Activity

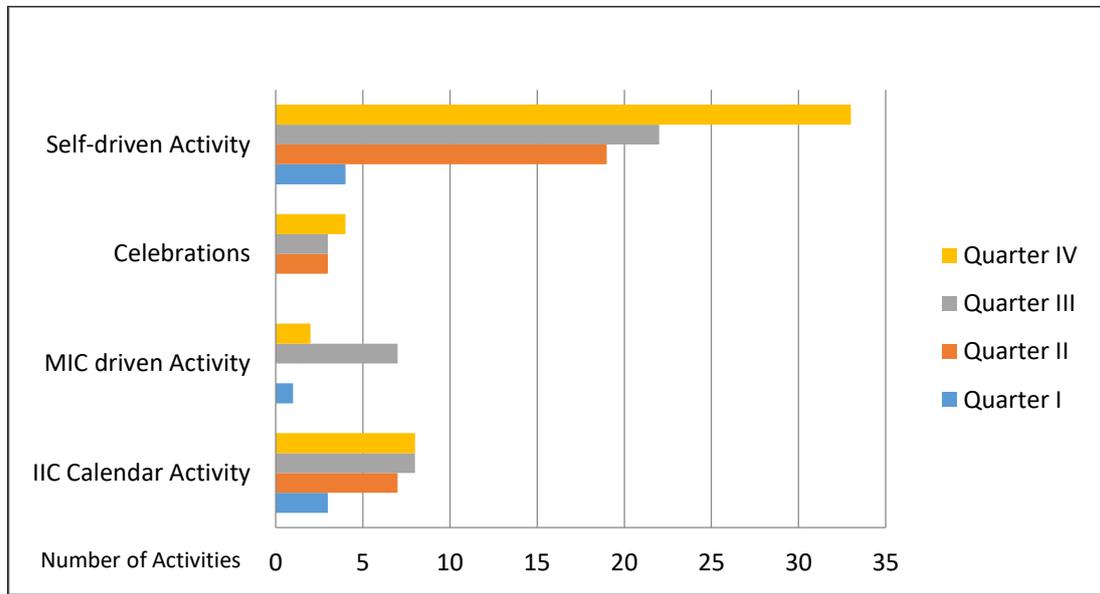


Figure 4: Activity Execution Analysis

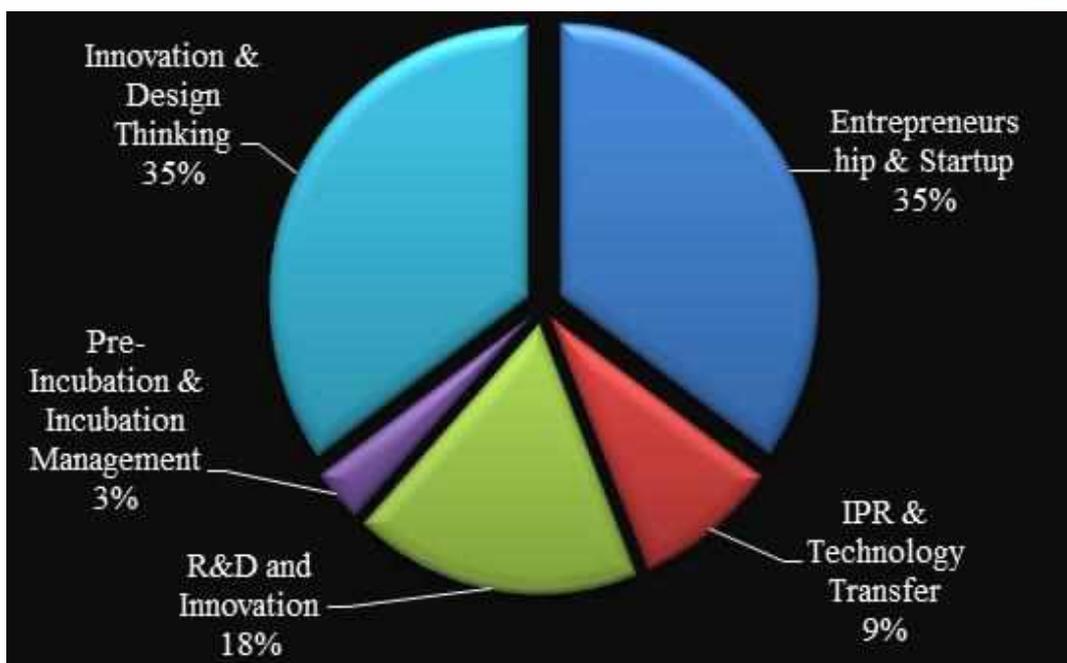


Figure 5: Activity Distribution by Theme

The distribution of events organized by the departments through IIC reveals a strong focus on innovation and entrepreneurship, while also ensuring that importance is given to all themes, including research, technology transfer, and incubation.

EVENTS ORGANIZED BY IIC TO PROMOTE INNOVATION AND ENTREPRENEURSHIP

I. IIC CALENDAR ACTIVITY

S.No.	Title of the Activity	Quarter	Organizer (Dept./Centre)
1	Exposure and field visit for problem identification: Aligning with UN SDGs and Exploring Emerging Areas of Technologies	I	Biotechnology
2	My Story - Motivational Session by Successful Innovators	I	CSE
3	Organize an Inter/Intra Institutional Idea Competition/Challenge/ Hackathon, and Reward the Best Ideas and deposition in the Institution's YUKTI Innovation Repository	I	Microbiology/IT
4	Organize an Inter/Intra Institutional Innovation Competition/Challenge/Hackathon and Reward the Best Innovations and deposition in the Institution's YUKTI Innovation Repository	II	Microbiology/IT



5	Innovation Showcase: Demo Day/Exhibition/Poster Presentation of Innovations/Prototypes & linkage with Innovation Ambassadors/Experts for Mentorship Support	II	Computer Science
6	Field/Exposure Visit to Pre-incubation units such as AICTE Idea Lab, Fab lab, Makers Space, Design Centers, City MSME clusters, workshops etc.	II	Commerce (CS)
7	Session on Achieving Problem-Solution Fit & Product-Market Fit	II	Biotechnology
8	Workshop on Effective Sales and Marketing Strategies for Entrepreneurs /Start-ups	II	Chemistry
9	Expert talk on "Process of Innovation Development & Technology Readiness Level (TRL)" & "Commercialization of Lab Technologies & Tech-Transfer"	II	Commerce (G)
10	Workshop on Design Thinking, Critical thinking and Innovation Design	II	Mechanical Engineering
11	Workshop on “Raising Capital and Managing Finance for Startups”	III	Biotechnology
12	B-Plan Pitch: Demo Day/Exhibition of Business Plans & linkage with Innovation Ambassadors/Experts for Mentorship Support.	III	Management
13	Organize an Inter/Intra Institutional Business Plan Competition and Reward the Best Innovations and deposition in the Institution’s YUKTI Innovation Repository	III	IT
14	Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre/Technology Transfer Centre such as Atal Incubation Centre etc	III	Commerce(CS)
15	Session on “How to plan for Start-up and legal & Ethical Steps”	III	Microbiology
16	Workshop on Intellectual Property Rights (IPRs) and IP management for start up	III	TBI
17	Workshop on Prototype/Process Design and Development	III	Mechanical Engineering
18	Session/ Workshop on Business Model Canvas (BMC)	III	Computer Science

19	Startup Summit: Demo Day/Exhibition of Start-Ups & Linkage with Innovation Ambassadors/Experts for Mentorship Support	IV	TBI
20	Organize an Inter/Intra Institutional Start-up Competition and Reward Best Start-ups.	IV	IT& Microbiology
21	Organizing Innovation & Entrepreneurship Outreach Program by involving ATLS/SICs in Schools	IV	Computer Science
22	Session/ Panel discussion with innovation and Start-up Ecosystem Enablers from the region/state/national level	IV	Computer Applications
23	Session on Angel Investment/VC Funding Opportunity for Early Stage Entrepreneurs.	IV	Management
24	Organize Session on “Lean Start-up & Minimum Viable Product/Business”- Boot Camp (or) Mentoring Session	IV	CSE
25	Session on Innovation/Prototype Validation – Converting Innovation into a Start-up or Session on Achieving “Value Proposition Fit” & “Business Fit”	IV	Commerce
26	Session on Accelerators/Incubation - Opportunities for Students & Faculties – Early-Stage Entrepreneurs.	IV	ECE

II. MIC DRIVEN ACTIVITY

S.No.	Title of the Activity	Quarter	Organizer (Dept./Centre)
1	Session on MIC Programmes & Schemes with Dr. Abhay Jere	I	ECE
2	Discover more with Design Registrations: Masterclass on Patents and Design Registration	III	Mechanical Engineering
3	Copy That! Copyrights Uncovered: Masterclass on Copyrights	III	Mechanical Engineering
4	Mark the Spot: Trademarks Talk: Masterclass on Trademarks and Geographical Indications	III	Mechanical Engineering
5	Patent to Product (Srujanta Se Samruddhi)	III	Mechanical Engineering
6	Significance of IP Protection and Commercialization	III	Mechanical Engineering



7	Inauguration of IP UTSAV and Celebration of World Creativity and Innovation Day	III	Mechanical Engineering
8	Building YUKTI Innovation Repositories in IIC Institutions: Productizing Campus Ideas & Boosting Innovation Funding for Startup Opportunities	III	Mechanical Engineering
9	Podcast Series on “Rashtra Pratham” and “Celebrating Failures”	IV	Mechanical Engineering
Annual Report			

III. CELEBRATION ACTIVITY

S.No.	Title of the Activity	Quarter	Organizer (Dept./Centre)
1	National Youth Day	II	Biotech. & Biochem.
2	National Science Day	II	English
3	National Pollution Control Day	II	Mechanical Engineering
4	National Technology Day	III	CSE
5	World Intellectual Property Day	III	Mechanical Engineering
6	International Women’s Day	III	Chemistry
7	5 th Anniversary of National Education Policy (NEP) 2020	IV	Mathematics
8	World Entrepreneurs’ Day	IV	Economics
9	Independence Day- Celebrating Aazadi Ka Amritkal	IV	Mechanical Engineering
10	World Environment Day	IV	Biotech.

IV. SELF-DRIVEN ACTIVITY

S.No.	Title of the Activity	Quarter	Organizer (Dept./Centre)
1	Engineers Day 2024 "Engineering solutions for a sustainable world"	I	ECE
2	Poster/ Slogan Contest - Vigilance Awareness week 2024	I	ECE



3	1st International Conference on Microbes and Applied Biotechnology (ICMAB' 24)	I	Biotech.
4	The Art of Valuation of a Start-up Company in Investment Perspective	I	TBI
5	Career counselling, Innovation and Entrepreneurship in Biological Sciences	II	Microbiology
6	Workshop On Business Model Canvas For Startups And Entrepreneurs	II	Mechanical Engineering
7	One Week Faculty Development Program on Automotive Embedded Software Engineering	II	ECE
8	Innovative Paradigm Shifts: Moving from Fossil Fuels to Renewable Energy Solutions	II	Mechanical Engineering
9	Seminar on Entrepreneurial Innovation: Trends and Opportunities.	II	ECE
10	Rise and Network Building Bridges with Indo UAE Economic Chamber of Commerce (IUECC)	II	TBI
11	Intellectual Property Rights (IPR), Innovation, and Entrepreneurship	II	TBI
12	Startup Spinoff (Demo Day)	II	TBI
13	Field/Exposure Visit to Pre-Incubation Unit	II	Computer Science
14	Innovative Approaches To Smart Agriculture	II	IT
15	Building Sustainable Startups: A Tri-Level Approach to Entrepreneurship & Innovation	II	Mechanical Engineering
16	Blueprints of Innovation : Design Thinking Meets Critical Analysis	II	Civil
17	Innovation as Career Opportunities	II	Biomedical
18	Entrepreneurship and Innovation Seminar From Spark To Success	II	Computer Science
19	Innovation in Urban Landscape & Techniques	II	Architecture
20	A Seminar on Factor Impacting Start-Up Ecosystem: Design Thinking Approach	II	Mechanical Engineering
21	Preserving Innovation for a Greener Future (A Joint Seminar on Safeguarding Innovation: The Role of IPR for Startups & Entrepreneurs & Thin Film Flexible Solar Panels: Innovation for a Sustainable Future)	II	Mechanical Engineering
22	Hands on Training on Innovative Approach for Dismantling and Approach of Automotive Components	II	Mechanical Engineering
23	Exposure Visit to 'Renewable Energy Expo' In commemoration of "National Energy Conservation Day"	II	Mechanical Engineering

24	Innovations In Drone Technology	III	Mechanical Engineering
25	Photo Manipulation and Poster Design	III	VisCom.
26	Blended Learning With Innovation For Entrepreneurs	III	Maths
27	Build-A-Thon: “Blueprints Battle 25”	III	Civil
28	Wellness Through Innovation	III	BioMedical
29	Navigating The Digital Age: Challenges And Opportunities For Entrepreneurs	III	Commerce
30	Solar Based DC System For EV Charging Research And Business Opportunities	III	Mechanical Engineering
31	Process Development For Innovation	III	Comp. Applications
32	Innovative Career Guidance & Future Sparks	III	Architecture
33	Innovative Blended Learning For The Future: Empowering Arts, Sciences And Engineering Education.	III	Physics
34	Financial Literacy And Skill Development Webinar	III	Economics
35	Industrial Microbiology Based Entrepreneurship	III	MicroBio.
36	Awareness Program On Sustainable Trends For Clean India: From Ideas To Impact With Bottle Challenge	III	Computer Science
37	Aidea-Thon 2k25	III	Mechanical Engineering
38	Innovative Design Thinking	III	Biotech
39	Biotech Startups: Innovation And Entrepreneurship In The Life Sciences	III	Biotech
40	St. Peter's & Startup Tn Idea Marathon 2025	III	TBI
41	Electorthon	III	ECE
42	Innothon: Process, Product, And Development	III	Mechanical Engineering
43	Finathon - Management Development Programs(MDP) On Critical Investment Thinking	III	Management Studies
44	Dream Big, Start Small: Entrepreneur's Mindset	III	Commerce
45	Seminar On Entrepreneurial Opportunities In Rubber Recycling	III	Chemistry
46	Statistical Insights: Driving Data- Driven Innovation	IV	Mathematics
47	“Entrepreneurial Mindset and Skills”	IV	BioTech.
48	Innovation and Entrepreneurship	IV	Management Studies
49	Sustainable Development Goals in Economics	IV	Economics
50	Role Of Renewable in Sustainable Energy Environment and Economics	IV	Economics

51	Innovation in Mechanical Design for Sustainable Systems	IV	Mechanical Engineering
52	Strategic Communication as a Catalyst for Entrepreneurial Success	IV	Computer Applications
53	From Idea to Intellectual Property: Procedures, Pitfalls, and Pathways	IV	Mechanical Engineering
54	The Future of Entrepreneurship: Trends, Innovation and Start-up Ideas to Follow	IV	Commerce
55	Driving the Future-Innovation in Electrical Vehicles	IV	EEE
56	Workshop on advanced techniques in crystal structure and material analysis	IV	Physics
57	Next Generation Mechanical Engineering – A Comprehensive Look	IV	Mechanical Engineering
58	National Level Seminar on “Sustainable Chemistry for a Greener Tomorrow”	IV	Chemistry
59	Art and Craft Gallery Competition International Youth Day	IV	EEE
60	Responsible Innovations: sustainable Industry Practices	IV	Mechanical Engineering
61	Hands-on Training Session on Innovative Learning Management System (LMS) for Enhanced Learning	IV	IQAC
62	Int. Seminar on Emerging Applications in Medicinal Sciences and Spectroscopy (ISEAMSS-2025)	IV	R&D
63	Beyond Graduation: Engineering Career Paths and Entrepreneurial Opportunities	IV	ECE
64	Innovative Transdisciplinary approach in Farming towards UNSD Agenda 2030	IV	IT
65	National level seminar on “Innovative and Basic Approaches in Analytical Chemistry”.	IV	Chemistry
66	Hands on training on patient multipara monitor and defibrillator	IV	Biomedical
67	Start Up Civil: Turning Site Challenges into Business Opportunities	IV	Civil
68	Biopreneurs: Igniting Startup Culture in Biochemistry	IV	Biochemistry
69	Hands-on Workshop for Technical Competency Building for Entrepreneurs	IV	CSE
70	From Biology to Business: A Guide to Bio-Entrepreneurship	IV	Microbiology
71	Green Tech AI: Sprint Ideate, Innovate and Incubate	IV	Computer Science
72	From Vision to Venture: Building Entrepreneurial Skills Through Business Model Canvas	IV	Computer Science
73	Emerging Trends In Solar PV and Thermal Systems	IV	Mechanical Engineering

74	Empowering underprivileged women through entrepreneurship	IV	English
75	Innovative Strategies for OTT and Television content creation	IV	Visual Communication
76	One student One Act for Social Change	IV	Political Science
77	Invent to Protect: A Hands-on Workshop on IPR Drafting	IV	Mechanical Engineering
78	Innovation in Design and Manufacturing	IV	Mechanical Engineering

A COLLECTION OF MOMENTS CAPTURED DURING VARIOUS IIC INITIATIVES AND EVENTS





DETAILS OF DIFFERENT TYPES OF I&E AND IPR COURSES, OFFERING DEPARTMENTS, AND PROGRAMME

The following courses have been offered by the departments with the intention of equipping students with knowledge and skills in innovation, prototype development, patent awareness, and entrepreneurship, thereby fostering an innovation-driven mindset.

S.No.	Course Name	Course Code	Course Offering Department/Programme
1	Intellectual Property Rights	AMET4169	Mechanical Engineering
2	Professional Practice and Ethics	AART4128	Architecture
3	Research Methodology and IPR	AEEPT1115	Electrical and Electronics Engineering
4	Intellectual Property Rights	AMEPT2140	M.E. Advanced Manufacturing Technology

5	Basics of Biotechnology	ABTT2907	Bio-technology
6	Research Methodology	ARMT2916	Bio-Technology

NON-ACADEMIC COURSES

S.No.	Title	Organizer Department/Centre
1	Faculty Development Program on “Innovation & Entrepreneurship”	Technology Business Incubator
2	Five-Day Short-term Tech Fest on “Innovate to Incubate: Bridging Ideas to Impact through Startup Ecosystem Synergy”	Engineering & Technology of SPIHER
3	Five-Day Online Short-term Lecture Series on “Industry-Driven Innovation and Product Development Practices”	Mechanical Engineering

RECOGNIZED FACULTY INNOVATION AMBASSADORS (IIC YEAR 2024 – 2025)

S.No.	Name of the Faculty	Name of Department / Centre
1	Dr.S. Brindha	Computer Science
2	Dr.N Rajeswari	Mechanical Engineering
3	Dr.Sayeeda Sultana	Chemical Engineering
4	Ms. R. Anuradha	Economics
5	Dr.B.Hemalatha	Civil Engineering
6	Dr. K. Amala	Biotechnology
7	Dr.S.Stella Mary	Physics
8	Dr.D.Gideon Moses	Microbiology
9	Dr.D.Chandramohan	Mechanical Engineering
10	Dr.Smilee Bose S	Management Studies
11	Mrs. K. Sunitha	Mechanical Engineering
12	Dr. S.Dinesh Kumar	Mechanical Engineering
13	Mr.R.Rajeshwaran	Civil Engineering

14	Dr. Vijaya	Biochemistry
15	Mr. S. Rangarajan	Mechanical Engineering
16	Dr. M.Prakash	Mechanical Engineering
17	Dr. P.Periyasamy	Mechanical Engineering
18	Ms. M.A.Lekshmi Devi	Electrical and Electronics Engineering
19	Dr. R. Latha	Computer Applications
20	Dr. K.Karthick	Biochemistry
21	Dr A Malliga	Economics
22	Dr. S. Ravichandran	Chemistry
23	Dr. V. Jayakumar	Chemistry
24	Dr. R. Vennila	Chemistry
25	Dr. R. Jayaraj Pandian	Technology Business Incubator
26	Dr.J.Uma Shankari	English
27	Ms. D. Jemima Devapriyam	English
28	Mrs.R.Nirmala	Electronics and Communication Engineering
29	Dr.S.Tamilarasi	Information Technology
30	Dr.R.Subhashni	Computer Applications
31	Dr.D.Kavitha	Computer Applications
32	Dr.I.Manju	Electronics & Communication Engineering
33	Dr.B.Shanthini	Computer Science and Engineering

INNOVATION AMBASSADORS IN INSTITUTIONAL SKILL DEVELOPMENT

Innovation Ambassadors have enhanced awareness within the institution on the role of the Innovation Council, highlighting capacity building and skill acquisition as key enablers of entrepreneurship and innovation.

S.No.	Innovation Ambassador	Awareness Talk Title
1	K. Sunitha	Frugal Innovations – Doing More With Lessinnovation & Design Thinking
2	Dr.N.Rajeswari	Promoting Innovation, Startup Ecosystems, And Business Incubation Through Iic Pre-Incubation & Incubation Management
3		Ctrl + Alt + Innovate! Innovation & Design Thinking
4		Innovate To Incubate Pre-Incubation & Incubation Management
5	Dr. S.Dinesh Kumar	Innovative Ideas For Startups Innovation & Design Thinking
6	Mr. R. Rajeshwaran	Innovation’s Ambassadors Awareness Talk On Innovations In Sustainable Construction Innovation & Design Thinking
7	Dr.B.Hemalatha	Innovative Waste Management In Constructioninnovation & Design Thinking Innovation & Design Thinking
8	Mrs.R.Nirmala	Green Energy Innovations – Solar, Wind, And Biofuels Innovation & Design Thinking
9	Mrs.M.A.Lekshmidevi	Green Vision-Innovation In Sustainable Energy Innovation & Design Thinking
10	Dr.Smilee Bose S	Lean Statup Entrepreneurship & Startup
11	Mr. S. Rangarajan	From Idea To Enterprise: Awareness Talk On Entrepreneurship And Start-Up Ecosystem Entrepreneurship & Startup
12	Dr.D.Gideon Moses	Innovations In Nutraceuticals And Functional Foods Innovation & Design Thinking
13	Dr.R.Latha	Values-Driven Entrepreneurship: Ethics As The New Competitive Edge Entrepreneurship & Startup
14	Dr.P.Vijaya	Green Biochemistry: Sustainable Innovation For A Healthier Future Entrepreneurship & Startup
15	Dr.D.Chandramohan	Invent To Protect: A Hands-On Workshop On Ipr Drafting Ipr & Technology Transfer
16	Dr. K. Amala	Standardizing Herbal Plants: A Challenge And An Innovation In Product Development Innovation & Design Thinking
17	Dr.R.Subhashni	“Innovation Ecosystem” Innovation & Design Thinking
18	Dr.I.Manju	Inspiring Innovation Through Hackathon Innovation & Design Thinking
19	S. Brindha	From Vision To Venture: Building Entrepreneurial Skills Through Business Model Canvas Entrepreneurship & Startup
20	Dr.M.Prakash	Design Thinking For Engineers: Driving Innovation From Concept To Creation Innovation & Design Thinking
21	Dr. P.Periyasamy	Pre-Incubation And Incubation Management For Aspiring Entrepreneurs Entrepreneurship & Startup
22	Ms. R. Anuradha	Government Policies And Support For Startups Entrepreneurship & Startup

A COLLECTION OF MOMENTS CAPTURED DURING VARIOUS IIC INITIATIVES AND EVENTS



ENTREPRENEURIAL SKILL DEVELOPMENT BEYOND THE INSTITUTION

Innovation Ambassadors promoted awareness in other institutions on the innovation council and the need for competency development in entrepreneurship and innovation.

S.No.	Innovation Ambassador	Awareness Talk Title
1	Dr.N.Rajeswari	Promoting Innovation and Enabling Startup Ecosystems Entrepreneurship & Startup
2	Dr.Smilee Bose S	Elevating entrepreneurial skills: enroute to womens empowerment Entrepreneurship & Startup
3		Overcome Fear and self doubts as an entrepreneur Entrepreneurship & Startup
4		Transforming Ideas to reality Innovation & Design Thinking



CAPACITY DEVELOPMENT ACTIVITIES OF INNOVATION AMBASSADORS

Faculty Innovation Ambassadors have undergone capacity-building programs to enhance their competency in critical domains such as Entrepreneurship, IPR Management, Patent Drafting, and Design Thinking. This equips them to provide strategic mentoring, facilitate technology transfer, and drive innovation-led initiatives within the institution.

S.No.	Innovation Ambassador	Training Activity Details	Upskilling/Reskilling Training Type
1	R.Jayaraj Pandian	2 Weeks Online FDP on Entrepreneurship and Innovation Management	Faculty Development Program(FDP)
2		Driving Innovation in Entrepreneurship	Short-term Training/Certificate Program
3	Dr.D.Chandramohan	Patent Law for Engineers and Scientists	Faculty Development Program(FDP)
4		UGC- sponsored Short-term Course on Leveraging Digital Tools and Techniques for Enhanced Research (Multidisciplinary)	Short-term Training/Certificate Program
5		Research Methodology and IPR	Faculty Development Program(FDP)
6	Dr.Smilee Bose S	The Complete Business & Marketing Course	Short-term Training/Certificate Program
7		The Path to Entrepreneurship	Entrepreneurship Development Program(EDP)
8	Dr.Sayeeda Sultana	Workshop On Business Model Canvas For Startups And Entrepreneurs	Short-term Training/Certificate Program
9		AICTE Evaluated 2-Week Patent Course	Short-term Training/Certificate Program
10		Workshop On Business Model Canvas For Startups And Entrepreneurs	Entrepreneurship Development Program(EDP)
11	Dr.D.Gideon Moses	8-Day Basics of Intellectual Property Rights	Short-term Training/Certificate Program
12		16 Day Entrepreneurship Awareness Program	Short-term Training/Certificate Program
13		Industrial Microbiology Based Entrepreneurship	Entrepreneurship Development Program(EDP)
14	Dr. K. Amala	Introduction to copyright	Short-term Training/Certificate Program

15	Dr.N.Rajeswari	IP and Music: Feel the beat of IP	Short-term Training/Certificate Program
16		Idea to patent	Short-term Training/Certificate Program
17		Design Thinking	Short-term Training/Certificate Program
18		Product Engineering and Design Thinking	Faculty Development Program(FDP)
19	Ms. R. Anuradha	Women Entrepreneurial Development Programme	Entrepreneurship Development Program(EDP)
20		NEP 2020 Orientation And Sensitization Programme	Short-term Training/Certificate Program
21	Mr. R. Rajeshwaran	Faculty Development Program on Urban Development of Smart Cities and Mobility	Faculty Development Program(FDP)
22	Mr. R. Rajeshwaran	Faculty Development Program on Disaster Risk Reduction through Sustainable Infrastructure	Faculty Development Program(FDP)
23		DST NGP Winter School on Geospatial Technologies - Advance Geospatial Data Gathering and Management Techniques for Sustainable Smart City Development	Short-term Training/Certificate Program
24	K. Sunitha	Intellectual property UTSAV -IP and Music: Feel the Beat of IP	Short-term Training/Certificate Program
25		NEP 2020 Orientation & Sensitization Programme	Faculty Development Program(FDP)
26		Industrial Revolution 5.0 for Sustainable Green Manufacturing	Faculty Development Program(FDP)
27	Dr. S.Dinesh Kumar	Industrial revolution 5.0 for sustainable green manufacturing	Faculty Development Program(FDP)
29		Innovation And Entrepreneurship	Faculty Development Program(FDP)
30	Dr.R.Subhashni	NEP 2020 Orientation & Sensitization Programme	Faculty Development Program(FDP)
31		Design Thinking for HEI towards Education 5.O	Faculty Development Program(FDP)
32	Dr.I.Manju	Digital Implementation	Faculty Development Program(FDP)

33	Dr.D.Kavitha	Generative AI Unveiled: Concepts, Models, and Real-world Applications	Faculty Development Program(FDP)
34		Accreditation and Outcome Based Learning	Faculty Development Program(FDP)
35		5G Networking Slicing & Applications	Faculty Development Program(FDP)
36	Mr. S. Rangarajan	Solving Problems And Making Decision	Faculty Development Program(FDP)
37		Industrial revolution 5.0 for sustainable green manufacturing	Faculty Development Program(FDP)
38	Dr. A.Malliga	Teaching Indian Traditional Knowledge Pedagogies, Content & Contexts	Short-term Training/Certificate Program
39		NEP 2020 Orientation and sensitization Programme	Short-term Training/Certificate Program
40	Ms. D. Jemima Devapriyam	Research Methodology	Faculty Development Program(FDP)
41		AI, ML, & Deep learning on autonomous vehicle	Faculty Development Program(FDP)
42		Research Methodology, Research Article writeup, patent and Funding project	Faculty Development Program(FDP)
43		NAAC Accreditation Framework	Faculty Development Program(FDP)
44	Dr.R.Latha	5-Day Residential Faculty Development Program (FDP) on High Performance Computing (HPC)	Faculty Development Program(FDP)
45		NEP 2020 Orientation & Sensitization Programme (Programme Code: MMC-138-2025-FEB-A-03275)	Faculty Development Program(FDP)
46		Emerging research trends in Block Chain and data science	Faculty Development Program(FDP)
47		AICTE Evaluated 7-day Design Thinking Course	Short-term Training/Certificate Program
48		8-days Basics of Intellectual Property Rights	Short-term Training/Certificate Program
49		Webinar on Filing a National and International Patent and Understanding the Procedure for the Same ,“Impact Lecture Sessions-2	Short-term Training/Certificate Program

50	Dr.R.Latha	Stress Management	Faculty Development Program(FDP)
51		Unlocking potential emerging technology in computing techniques	Faculty Development Program(FDP)
52		Inculcating Universal Human Values in Technical Education”	Faculty Development Program(FDP)
53		Advances and Recent Trends in Environmental and Energy Applications of Nanomaterials	Faculty Development Program(FDP)
54	Dr. S. Ravichandran	Practice and Policies in Research Publications	Short-term Training/Certificate Program
55		Five days faculty development program on advanced sustainable materials using tools and tech driven research for modern educators	Faculty Development Program(FDP)
56	Dr S Venkatesan	Management	Management Development Program(MDP)
57		Entrepreneurship, Pre-Incubation and Incubation Management	Entrepreneurship Development Program(EDP)
58	S. Brindha	AICTE Evaluated 2-Week Patent Course	Short-term Training/Certificate Program
59	Dr. R. Vennila	Developing innovation, startup and entrepreneurship ecosystem in engineering and management system	Faculty Development Program(FDP)
60	Dr.S.Stella Mary	Designing Thinking Course	Short-term Training/Certificate Program
61	Dr.B.Hemalatha	CARS2024	Short-term Training/Certificate Program
62	Dr.J.Uma Shankari	Basis of IPR	Short-term Training/Certificate Program
63		Patent filing in India	Short-term Training/Certificate Program
64	Dr.S.Tamilarasi	Entrepreneurship Awareness Program	Short-term Training/Certificate Program
65	Dr.B.Shanthini	Malaviya Mission Teacher Training Programme	Faculty Development Program(FDP)

66	Matthew.K	'Teaching Indian Traditional Knowledge (ITK): Pedagogies, Content & Cultural Contexts'	Faculty Development Program(FDP)
67	Dr. P.Periyasamy	Master Class under IP Utsav	Faculty Development Program(FDP)
68	Mrs.M.A.Lekshmidevi	Artificial Intelligence for Electrical Engineering	Faculty Development Program(FDP)
69	Dr.P.Vijaya	Basics of Intellectual Property Rights Course	Short-term Training/Certificate Program
70		Introduction to Copyright - A Fresh Perspective	Short-term Training/Certificate Program
71	Dr. K.Karthick	Malaviya Mission Teacher Training Centre	Faculty Development Program(FDP)
82	Dr.M.Prakash	Recent Advancements in Artificial Intelligence (AI) & ML	Faculty Development Program(FDP)
83	Ms. E. Sheela	NEP 2020 Orientation & Sensitization Programme	Faculty Development Program(FDP)

TESTIMONIALS FROM IIC MEMBERS AND EXTERNAL ABOUT IIC INSTITUTE AND IIC OF MOE'S INNOVATION CELL



"I am proud of the active participation of our students and faculty in IIC initiatives. These efforts have fostered innovation, creativity, and strengthened our commitment to MIC's vision."
 - **Dr. N. Malmurgan, IIC President, SPIHER**



"I acknowledge the effective functioning of the Institution's Innovation Council in systematically organizing activities and maintaining compliance with MIC guidelines and builds a structured and sustainable innovation culture on our campus."
 - **Dr. L. Mahesh Kumar, IIC Vice President, SPIHER**



"This program has been a milestone in my professional journey. It provided practical strategies to implement innovation and nurture start-ups among students and faculty members."
 - **Dr. N. Rajeswari, IIC Convener, SPIHER**



"I appreciate the Institution's Innovation Council for fostering a spirit of inquiry and problem-solving among students & faculty. The council's initiatives are instrumental in bridging innovation with research."
 - **Dr. S. Gunasekaran, IIC Member, SPIHER**



"I recognize the IIC's role in embedding innovation into our academic framework, enhancing experiential learning and student development."
 - **Dr. M. Palaniswamy IIC Member, SPIHER.**



"The training has enabled the faculty integrate creativity, technology, and research into my teaching and mentoring process."
 - **Dr. C. S. Ravichandran IIC Member, SPIHER."**



"I value the IIC's role in fostering creativity and critical thinking among students, enriching learning beyond the classroom."
 - **Major. Dr. M. Venkatramanan, IIC Member, SPIHER**



"This training has strengthened my capacity to channelize YUKTHI initiatives in our institute. It has shown how structured frameworks can accelerate innovative outcomes."
 - **Dr. Tamilrasai, YUKTHI Coordinator, SPIHER**



"The Innovation Cell of MoE has given me valuable exposure. I can now mentor student-led YUKTHI projects with clarity and focus on real-world applications."
 - **Dr. S. Ganesh Kumar, YUKTHI Coordinator, SPIHER**



"This program provided excellent insights into integrating internships with start-up culture and industry collaborations for mutual growth."
 - **Dr. Amala, Internship Activity Coordinator, SPIHER**



"The training emphasized the role of effective communication in spreading innovation culture. It inspired me to use digital platforms for greater outreach."
 - **Dr. R. Subhashini, Social Media Coordinator, SPIHER**



"As a coordinator, I have gained strategies to highlight our institution's innovation activities. The training made me realize the importance of visibility and branding in innovation."
 - **Mrs. R. Nirmala, Social Media Coordinator, SPIHER**



"This initiative from MoE has truly motivated me. It provided the tools to mentor and encourage students in exploring innovation-driven projects."
 - **Mrs. K. Sunitha, IIC Member, SPIHER**



"IIC and MIC activities nurture creativity and innovation while enhancing communication and collaboration skills. They truly empower our students to face future challenges with confidence."
 - **Mrs. Dr. S. Uma maheswari, IIC Member, SPIHER**

 "Through innovation and startup initiatives, our students are encouraged to think beyond textbooks, transform their ideas into impactful solutions, and develop the skills required to excel as future innovators and leaders."
Dr. Manju, Innovation Ambassador, SPIHER

 "I acknowledge the Institution's Innovation Council for its initiatives that strengthen innovation and entrepreneurship, thereby adding value to our institution's overall performance and rankings."
Dr. R. Rani Hemamalini, NIRF Coordinator, SPIHER.

 "I appreciate the Ministry's initiative. The program gave me insights into fostering innovation ecosystems that positively reflect in quality assessments and NIRF parameters."
- Dr. R. Latha, NIRF Coordinator, SPIHER

 "The training sharpened my expertise in IPR and technology transfer. It has inspired me to guide students and faculty towards protecting and commercializing their innovations."
- Dr. Chandramohan Devarajan, IPR Activity Coordinator, SPIHER

 "Being part of the Innovation Ambassador training was transformative. It motivated me to introduce more activity-based learning approaches in innovation and entrepreneurship."
- Dr. B. Shanthini, Innovation Activity Coordinator, SPIHER

 "The sessions helped me realize how to convert student ideas into impactful projects. IIC provides a strong backbone for nurturing student creativity."
- Dr. Brindha, Innovation Activity Coordinator, SPIHER

 "Innovation programs at SPIHER bridge the gap between academics and real-world application, empowering students to excel both in education and life."
- Dr. Sayeeda Sultana, Innovation Ambassador, SPIHER

 "Innovation and Entrepreneurship initiatives inspire students to think critically and apply creative solutions, bridging academic learning with real-world economic challenges."
Mrs. R. Anuradha, Sultana, Innovation Ambassador, SPIHER

 "The endeavours of ic inspired me to think beyond academics and pursue start-up ideas. It was a life-changing exposure."
- Mr. M. Karthickeyan, IIC Student Member, SPIHER

 "Being a student, I found the sessions motivating and practical. I feel more confident to pitch my ideas and participate in hackathons."
- Mr. Shayam Sundar, IIC Student Member, SPIHER

 "The training encouraged me to look at problems differently. It gave me tools to work on innovative solutions that can make a societal impact."
- Mr. Venugopal, IIC Student Member, SPIHER

 "This was a great learning experience. It helped me understand entrepreneurship concepts and the importance of teamwork in innovation."
- Mr. V. Praveen, IIC Student Member, SPIHER

 "The IIC platform has bridged academia and entrepreneurship. I am impressed with the structured training that empowers faculty and students to work towards Atmanirbhar Bharat."
- Ms. Sandhya Gopal, District Program Manager @ EDII TN(Ext. Mem.)

 "The MoE's Innovation Cell is a pioneer in creating an innovation culture in India. The training I attended gave me confidence to mentor budding innovators at global standards."
- Dr. Sridevi Arunachalam, Founder IIEC & Indo – UAE (Ext. Mem.)



Advanced Bioinformatics tools for Molecular Diagnosis

Event Name: Skill Development session on “Advanced Bioinformatics tools for Molecular Diagnosis”

Organized by: Department of Microbiology

Date: 25.10.2024

Time: 09.30 am

The Skill Development Session on “*Advanced Bioinformatics Tools for Molecular Diagnosis*” was organized with the objective of strengthening students’ technical capabilities in cutting-edge diagnostic technologies. Aligning with SDG 9: Industry, Innovation and Infrastructure, the program emphasized the role of bioinformatics-driven innovations in advancing healthcare diagnostics, research infrastructure, and biotechnology industries.

The session introduced students to advanced computational platforms used in molecular diagnosis, showcasing how digital tools transform traditional laboratory processes. Participants explored essential bioinformatics applications such as BLAST, Clustal Omega, genomic databases, mutation analysis tools, and molecular visualization software. The resource person demonstrated how these tools support rapid disease detection, precision medicine, and large-scale genomic analysis—key pillars for building innovative biomedical infrastructure.

Hands-on training enabled students to work with real genomic sequences, interpret molecular data, and understand the technological backbone behind modern diagnostic solutions. The session highlighted how bioinformatics accelerates scientific innovation, supports industrial biotechnology, and enhances national capabilities in health-tech infrastructure. By equipping students with advanced analytical and computational skills, the program contributed directly to **SDG 9** by promoting technological advancement, encouraging innovation in molecular sciences, and preparing a skilled workforce capable of contributing to biotechnology-based industries and research ecosystems.

Overall, the session served as a platform to foster innovation, strengthen educational–industrial linkages, and empower students to participate confidently in the rapidly evolving landscape of bioinformatics and molecular diagnostics.

Programme Brochure

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INSTITUTE OF HIGHER EDUCATION AND RESEARCH
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AVADI, Chennai, Tamil Nadu 600 054

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CELEBRATING 33 YEARS Teaching Excellence

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DEPARTMENT OF MICROBIOLOGY
Cordially Invites you all for the
Skill development session on
Advanced bioinformatics tools for Molecular Diagnosis

25th October 2024
09.30 am

EEE Block, Smart Room: 258

Chief Guest
Dr. S. Anandakumar
Director
Yukai Core Solution LLP
Perambur, Chennai-600011

Advisor
Maj. Dr. M. Venkatramanan
Dean - FASCMH, SPIHER

Convenor
Dr. S. Ganesh Kumar
Associate Professor and Head
Dept. of Microbiology

Organizing Secretary
Dr. D. Gideon Moses
Assistant Professor
Dept. of Microbiology

Coordinators
Dr. N. Gunavathy
Assistant Professor, Dept. of Microbiology
Mrs. A. Neelofar
Assistant Professor, Dept. of Microbiology

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Program Title	Advanced Bioinformatics tools for Molecular Diagnosis
Program Theme	To enrich knowledge on bioinformatics tools in medical field To create awareness on molecular diagnosis of diseases
Duration of Event	Two Hours
Organized by	Department of Microbiology
Date and Time	25.10.2024 at 09.30 am
Facebook Link	https://www.facebook.com/share/p/75RT2CWTNns3gwgj/
Linkedin Link	https://www.linkedin.com/posts/spiherchennai_bioinformatics-moleculardiagnosis-skilldevelopment-activity-7255138507591970816-fhfc?utm_source=share&utm_medium=member_android
Instagram Link	https://www.instagram.com/p/DBgDMOIPcSg/?igsh=cnQ5bzZwa3Z4amlw
Organizing Secretary	Dr. D. Gideon Moses, AP/MICROBIO

Co-ordinators	Dr. N. Gunavathy, AP, MICROBIO & Mrs. A. Nelofer/AP/MICROBIO
Convener	Dr. S. Ganesh Kumar, Asso. Prof./HoD/MICROBIO
Mode	Offline Mode
Venue	EEE Block Smart Room No. 258, SPIHER
Key Points Discussed	<ul style="list-style-type: none"> ➤ Significance of bioinformatics tools in medical field ➤ Practice the bioinformatics tools in molecular diagnosis ➤ Application of bioinformatics tools in the treatment of diseases



Chief Guest, Dr. S. Ananda Kumar, Director, Yukai Care Solutions, delivering the lecture



Chief Guest explaining the importance of Bioinformatics tools



Public Links

<https://www.instagram.com/p/DBgDMOIPcSg/?igsh=cnQ5bzZwa3Z4amlw>

<https://x.com/SpiherIndia/status/1849372894406557752?t=3N98aD2oD29IxNOz5Az9tA&s=19>

<https://www.facebook.com/share/p/75RT2CWTNns3gwgj/>

https://www.linkedin.com/posts/spiherchennai_bioinformatics-moleculardiagnosis-skilldevelopment-activity-7255138507591970816-fhfc?utm_source=share&utm_medium=member_android

REPORT ON KNOWLEDGE TRANSFER SESSION ON "NATURAL DISASTERS - REBUILDING & RECOVERY"

Date: 02nd September 2024

Venue: Mechanical Block, Seminar Hall

Time: 10.00 am onwards

Event: Knowledge Transfer Session on "Natural Disasters - Rebuilding & Recovery"

Program aligns with two Sustainable Development Goals: Quality Education (Goal 4) and Industry, Innovation and Infrastructure (Goal 9).

Organizers:

- Department of Chemistry - St. Peter's Institute of Higher Education & Research
- Department of Civil Engineering - St. Peter's Institute of Higher Education & Research
- IQAC - St. Peter's Institute of Higher Education & Research

Invited Speakers:

1. Mr. C. Sakthivel, Assistant Professor, Department of Chemistry Topic: Types of disasters
2. Mr. R. Rajeshwaran, Assistant Professor, Department of Civil Engineering Topic: Seismic Design of building

Advisors:

- Maj. Dr. M. Venkatramanan (Dean - FASCMH, SPIHER)
- Dr. S. Selvan (Advisor - Dean (Engg), SPIHER)

Conveners:

- Dr. Sayeeda Sultana (Professor & Head, Department of Chemistry, SPIHER)
- Dr. B. Hemalatha (Professor, Department of Civil Engineering, SPIHER)

The event aims to provide knowledge on natural disasters, focusing on rebuilding and recovery efforts. The invited speakers' explained about natural disasters such as earthquakes, hurricanes, floods, and wildfires cause significant damage to infrastructure, homes, and communities, requiring coordinated rebuilding and recovery efforts. Post-disaster recovery involves immediate relief such as providing shelter, food, and medical care, followed by long-term rebuilding, which includes restoring infrastructure, homes, and local economies. Successful recovery strategies emphasize community involvement, government support, and resilience-building to mitigate future risks. Sustainable building practices, such as using disaster-resistant materials and designs, are also critical to ensure that rebuilt structures can withstand future events, helping communities recover faster and stronger.

St. PETER'S
Institute of Higher Education & Research
Institution's Innovation Council
A+ NAAC

**DEPARTMENT OF CHEMISTRY
&
DEPARTMENT OF CIVIL ENGINEERING**
in association with IQAC

Cordially invites you all for the Knowledge Transfer Session on

**Natural Disasters – Rebuilding
& Recovery**

02.09.2024 **10.00 am**

Mechanical Block, Seminar Hall

Invited Speakers

<p>Mr. C. Sakthivel Assistant Professor Department of Chemistry Title - Types of disasters</p>	<p>Mr. R. Rajeshwaran Assistant Professor Department of Civil Engineering Title - Seismic Design of building</p>
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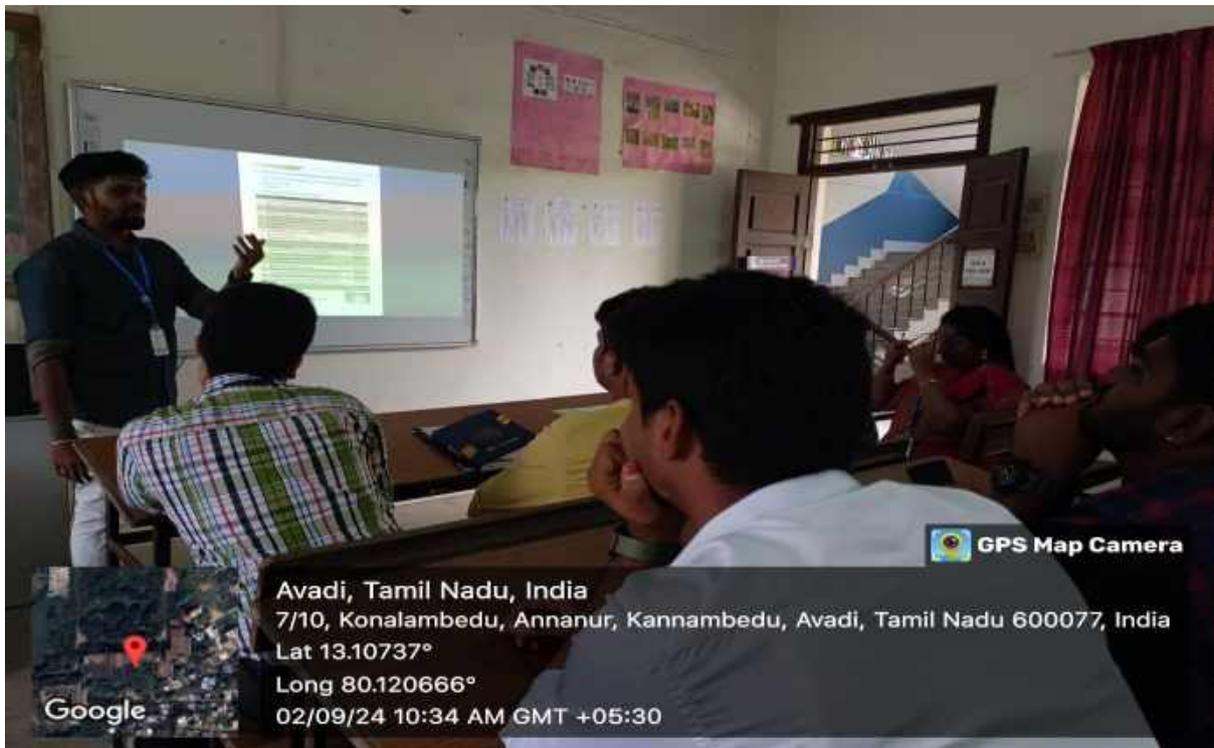
<p>Advisors</p> <p>Maj . Dr. M.Venkatramanan Dean – FASCMH SPIHER</p> <p>Dr. S. Selvan Advisor - Dean (Engg) SPIHER</p>	<p>Conveners</p> <p>Dr. Sayeeda Sultana Professor & Head Department of Chemistry SPIHER</p> <p>Dr .B. Hemalatha Professor Department of Civil Engineering SPIHER</p>
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BROCHURE FOR THE EVENT



INTRODUCTORY SESSION



KNOWLEDGE TRANSFER SESSION 1



KNOWLEDGE TRANSFER SESSION 2

Report on - A Technical Discourse on Industry Outlook Series 1: Trends, Insights, and Opportunities

The Department of Mechanical Engineering successfully organized a technical discourse titled "Industry Outlook Series 1: Trends, Insights, and Opportunities" from August 6th to 10th, 2024. This event was a significant opportunity for students and professionals alike to gain insights from industry experts, focusing on emerging trends and opportunities within the mechanical engineering sector. The sessions were held online via Google Meet, facilitating broad participation and interaction.

Day 1: August 6th, 2024

The series commenced with an insightful session led by **Mr. S. Kiran Kumar, Simulation Engineer at Valeo India Pvt. Ltd., Chennai**. His discourse, held from 10:00 AM to 11:00 AM, provided attendees with a deep dive into the advancements in simulation technologies and their applications in the automotive industry. His expertise helped bridge the gap between academic learning and industrial application, emphasizing the importance of simulation in designing safer and more efficient vehicles.

Day 2: August 7th, 2024

On the second day, **Mr. Abubacker A, Senior Engineer in Mechanical Design at LST Technology Services Limited, Chennai**, presented a session from 2:00 PM to 3:00 PM. His presentation focused on the latest trends in mechanical design, particularly in the context of sustainable development. He discussed innovative design methodologies that reduce environmental impact while maintaining product performance and cost-effectiveness.

Day 3: August 8th, 2024

The third day's session, from 10:00 AM to 11:00 AM, was conducted by **Mr. Rakesh R C, Assistant Manager at Ashok Leyland, Chennai**. His talk revolved around the evolving landscape of the

automotive industry, with a focus on electric vehicles (EVs). Mr. Rakesh provided an overview of the challenges and opportunities in the EV sector, highlighting Ashok Leyland's initiatives and innovations in this space.

Day 4: August 9th, 2024

On the fourth day, **Mr. Ganesh M, Senior Quality Control Manager at Precision Equipments Pvt. Ltd., Chennai**, led a session from 10:00 AM to 11:00 AM. His discourse centered on the importance of quality control in manufacturing. Mr. Ganesh shared practical insights into maintaining high standards in production processes, emphasizing the role of quality assurance in achieving customer satisfaction and regulatory compliance.

Day 5: August 10th, 2024

The final day featured a session by **Mr. Purushothaman K, Deputy Manager of Risk Services at Chola MS Risk Services Limited, Chennai**. From 10:00 AM to 11:00 AM, he discussed the critical role of risk management in engineering projects. His talk highlighted the methods and tools used to identify, assess, and mitigate risks in mechanical engineering projects, stressing the importance of proactive risk management in ensuring project success.

The event was convened by **Dr. N. Rajeswari**, with organizing efforts led by **Dr. P. Periyasamy and Mr. S. Rangarajan**. The series provided valuable knowledge and sparked discussions on the future of Mechanical engineering, offering participants a broader perspective on industry expectations and advancements.



DEPARTMENT OF MECHANICAL ENGINEERING
Organizes
A Technical Discourse on

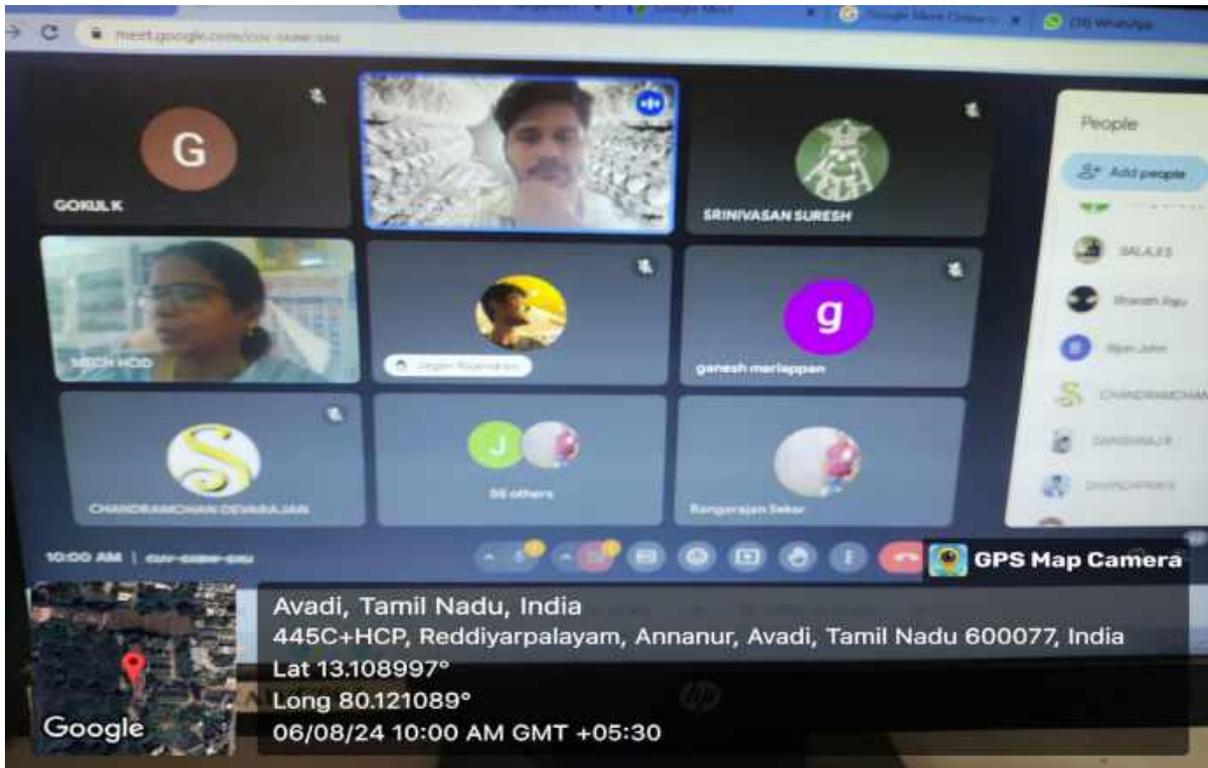
**Industry Outlook Series 1:
Trends, Insights and Opportunities**

6th to 10th August 2024 | 10.00 am | Google Meet

<p>DAY 1 06-08-2024 10.00 a.m to 11.00 a.m</p> <div style="border: 1px solid white; padding: 5px; margin-bottom: 5px;"> <p>Resource Person</p> <p>Mr. S. Kiran kumar Simulation Engineer Valeo India Pvt. Ltd., Chennai.</p> <p>https://meet.google.com/cuv-sxaw-sxu</p> </div> <p>DAY 3 08-08-2024 10.00 a.m to 11.00 a.m</p> <div style="border: 1px solid white; padding: 5px; margin-bottom: 5px;"> <p>Resource Person</p> <p>Mr. Rakesh R C Assistant Manager Ashok Leyland, Chennai.</p> <p>https://meet.google.com/cuv-sxaw-sxu</p> </div> <p>DAY 5 10-08-2024 10.00 a.m to 11.00 a.m</p> <div style="border: 1px solid white; padding: 5px;"> <p>Resource Person</p> <p>Purushothaman K Deputy Manager-Risk Services CholaMS Risk Services Limited Chennai.</p> <p>https://meet.google.com/cuv-sxaw-sxu</p> </div>	<p>DAY 2 07-08-2024 2.00 p.m to 3.00 p.m</p> <div style="border: 1px solid white; padding: 5px; margin-bottom: 5px;"> <p>Resource Person</p> <p>Mr. Abubacker .A Senior Engineer Mechanical Design L&T Technology Services Limited Chennai.</p> <p>https://meet.google.com/cuv-sxaw-sxu</p> </div> <p>DAY 4 09-08-2024 10.00 a.m to 11.00 a.m</p> <div style="border: 1px solid white; padding: 5px; margin-bottom: 5px;"> <p>Resource Person</p> <p>Mr. GANESH .M Senior Quality Control Manager Precision Equipments Pvt. Ltd. Chennai.</p> <p>https://meet.google.com/cuv-sxaw-sxu</p> </div> <p>Convenor</p> <p>Dr. N. Rajeswari</p> <p>organizers</p> <p>Dr. P. Periyasamy Mr. S. Rangarajan</p>
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[+91 9445638085](https://wa.me/919445638085)
 www.spiher.ac.in
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 [@spiher.ac.in](https://www.instagram.com/spiher.ac.in)

Day 1: August 6th, 2024



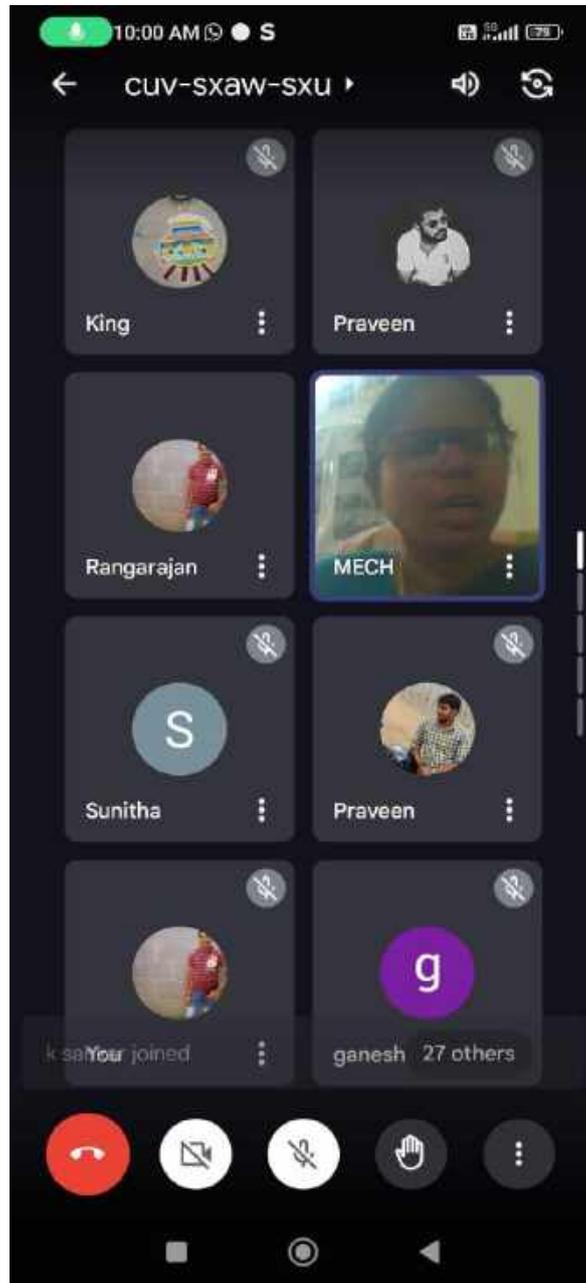
Mr. S. Kiran Kumar, Simulation Engineer at Valeo India Pvt. Ltd., Chennai. His discourse, held from 10:00 AM to 11:00 AM

Day 2: August 7th, 2024



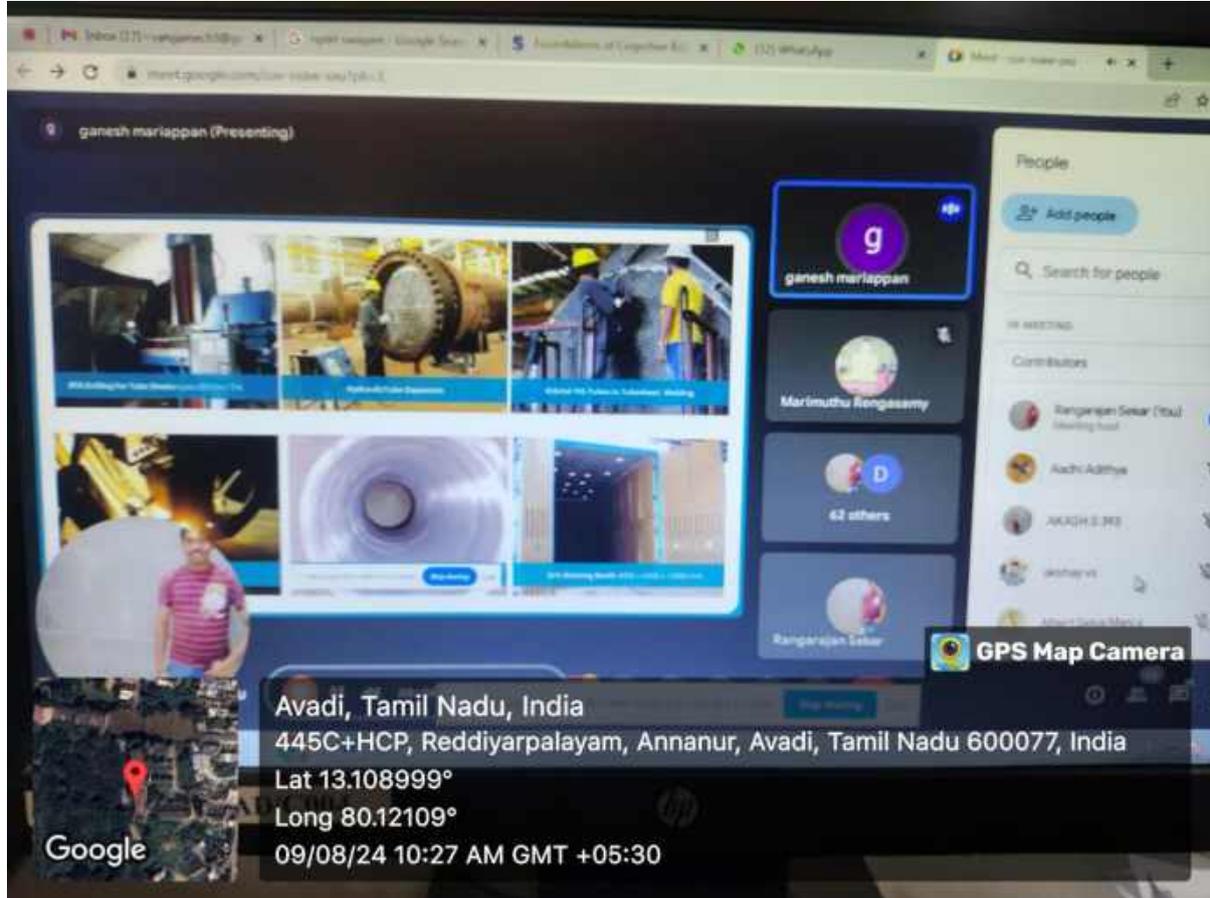
Mr. Abubacker A, Senior Engineer in Mechanical Design at LST Technology Services Limited, Chennai, presented a session from 2:00 PM to 3:00 PM

Day 3: August 8th, 2024



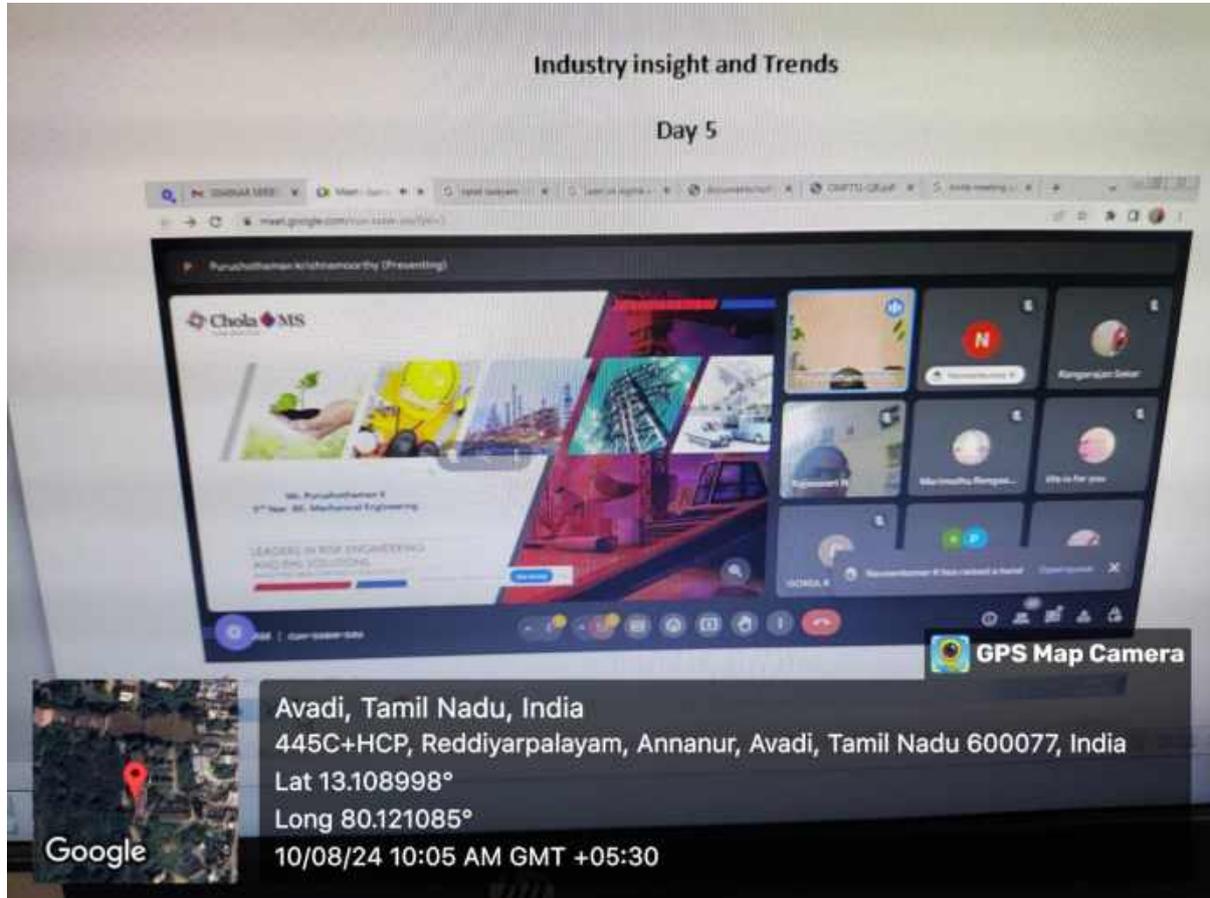
Mr. Rakesh R C, Assistant Manager at Ashok Leyland, Chennai. The third day's session, from 10:00 AM to 11:00 AM

Day 4: August 9th, 2024



Mr. Ganesh M, Senior Quality Control Manager at Precision Equipments Pvt. Ltd., Chennai, led a session from 10:00 AM to 11:00 AM

Day 5: August 10th, 2024



Mr. Purushothaman K, Deputy Manager of Risk Services at Chola MS Risk Services Limited, Chennai. From 10:00 AM to 11:00 AM

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Organizes

A Seminar on



ROBOTIC INSTALLATION AND SERVICING



In association with

WAVEZ WHISPER
(A Club of ECE)

📅 5th August 2024 ⌚ 2.00 pm

📍 Room No. 218, Main block



RESOURCE PERSON

Harish .R

Senior Robotic Engineer

Future Robotics and Automation

CONVENOR

Dr. G. P. Ramesh

Prof & Head, ECE, SPIHER

COORDINATOR

Ms. T. Anne Ramya

Assistant Professor, ECE, SPIHER

DEPARTMENT OF CHEMISTRY

Organizes

INAUGURATION OF CHEM CLUB 2024 & SEMINAR ON



ARTIFICIAL INTELLIGENCE IN CHEMISTRY - THE FUTURE OF SCIENTIFIC DISCOVERY

INVITED SPEAKER

Mr. T. A. Benjamin (Alumni)
Senior Executive (Quality Assurance)
MMC Healthcare Pvt Ltd, Thirumazhsai.



 19th July 2024  10.30 am  Smart Class Room 258, EEE Block

PRESIDENTIAL ADDRESS

Maj. Dr. M. Venkatramanan
Dean-FASCMH, SPIHER

CONVENOR

Dr. Sayeeda Sultana
Professor & Head-Department of Chemistry
SPIHER

COORDINATOR

Mr. C. Sakhivel
Assistant Professor-Department of Chemistry
SPIHER

DEPARTMENT OF CHEMISTRY



Organizes
Seminar on

9
INDUSTRY INNOVATION
AND INFRASTRUCTURE



Sustainability 4.0 and its Applications in Pharmaceutical Industry



INVITED SPEAKER

Mr. Sanjay Kumar Sharma

Analytical Team Lead (Deputy Manager)
Zenfold Sustainable Technologies, Bengaluru
Karnataka

📅 22nd July 2024 ⌚ 9.30 am

📍 Smart Class Room 258, EEE Block

PRESIDENTIAL ADDRESS

Maj. Dr. M. Venkatramanan

Dean-FASCMH

CONVENOR

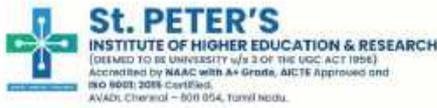
Dr. Sayeeda Sultana

Professor & Head-Department of Chemistry
SPIHER

COORDINATOR

Mr. C. Sakthivel

Assistant Professor-Department of Chemistry
SPIHER



Conclusion:

SPIHER clearly demonstrate its commitment to strengthening global partnerships by actively participating in international outreach activities, awareness programmes, and community-oriented initiatives. Through meaningful human-focused engagements—such as global campaigns, cross-border volunteer contributions, and participation in international social impact events—the institution has supported collaborative action that benefits society at large.

These activities have helped build stronger connections with global communities, encouraged shared responsibility, and promoted inclusive participation in solutions to common human challenges. By fostering international cooperation at the grassroots level, the institution ensures that its contributions are genuinely people-centered and aligned with global development priorities. Overall, the institution's actions reinforce the objectives of **SDG 17.3.9**, demonstrating a sustained commitment to human well-being, community empowerment, and the strengthening of global solidarity.