St. PETER'S
INSTITUTE OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY u/s 3 OF THE UGC ACT 1956)
Accredited by NAAC with A+ Grade, AICTE Approved and
ISO 9001: 2015 Certified.
Avadi, Chennai - 600 054, Tamil Nadu.

ANNUAL PROGRESS REPORT FOR SDG 15 – 2024

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17.3.15. University publishes progress against SDG 15

Sustainable Development Goal 15 aims to protect, restore, and promote the sustainable use of terrestrial ecosystems. It focuses on managing forests sustainably, combating desertification, halting land degradation, and preserving biodiversity. SDG 15 emphasizes the importance of healthy ecosystems for supporting life, maintaining climate balance, and providing essential resources like food, water, and shelter. By preventing deforestation, protecting wildlife habitats, and restoring degraded lands, this goal works toward sustaining the planet's natural heritage and ensuring that life on land continues to thrive for future generations.

SPIHER recognizes the importance of animals in maintaining ecological balance. Through sustainable practices and habitat conservation, the campus supports small mammals and insects that contribute to the health of the land. The presence of these species is a testament to the institution's commitment to fostering biodiversity, promoting environmental awareness, and ensuring a vibrant ecosystem for future generations. By integrating trees, birds, and animals into its environmental stewardship efforts, SPIHER actively supports SDG 15 and contributes to the restoration and preservation of life on land.

International Conference on Microbes and Applied Biotechnology (ICMAB' 24)

The *International Conference on Microbes and Applied Biotechnology* serves as a vital platform for researchers, academicians, and industry experts to explore the transformative role of microorganisms in sustaining terrestrial ecosystems. In alignment with **SDG 15: Life on Land**, the conference highlights how microbial innovations contribute to biodiversity conservation, soil restoration, sustainable agriculture, and ecosystem resilience.

Discussions and presentations focus on the application of beneficial microbes in biofertilizers, biopesticides, and bioremediation technologies that reduce chemical dependency and protect land-based habitats. The event also underscores the importance of microbial diversity as a key component of healthy soils, forest regeneration, and climate resilience.

By fostering scientific collaboration and sharing emerging research, the conference promotes sustainable land management practices and supports global efforts to combat desertification, restore degraded lands, and conserve biological diversity. Ultimately, it empowers the scientific community to develop eco-friendly biotechnological solutions that safeguard terrestrial ecosystems for present and future generations.

Program Title	**1st International Conference on Microbes and Applied Biotechnology (ICMAB' 24)**
Program Theme	• Agricultural Biotechnology including plant tissue culture • Animal Biotechnology • Aquatic Biotechnology • Marine Biotechnology • Bioinformatics • Food Biotechnology • IPR, Bio-products and Bio-safety • Medical Biotechnology • Microbial & Industrial Biotechnology • Molecular virology • Pharmaceutical Biotechnology
About the Conference	➢ This conference aims to provide a platform for all the aspects of Microbiology, Biotechnology and Biochemistry. ➢ A great opportunity to students, scholars, and private sectors to interact and exchange their latest ideas and techniques for exploration of largely untapped biotechnology and microbial resources in India and abroad
Duration of Event	Three days
Organized by	Department of Microbiology, Biotechnology and Biochemistry
Date and Time	6th – 8th November, 2024, 9.30am-3.45pm
Convener	Dr.M.Palaiswamy, Dean PDA
Organizing Secretary	Dr.S.Ganesh Kumar, Associate Professor & Head, Microbiology
Coordinators	Dr.K.Amala, Assistant Professor & Head, Biotechnology Dr.R.Nithya, Assistant Professor & Head i/c, Biochemistry
Facebook Link	https://www.facebook.com/share/p/vMSevvPhGaXAh7qj/?mibextid=qi2Omg
Linkedin Link	https://www.linkedin.com/posts/spiherchennai_plasticpollution-environmentalawareness-saveourplanet-activity-7246019641435684864-Iz3E?utm_source=share&utm_medium=member_android
Instagram Link	https://www.instagram.com/p/DAfQXD6Pjdv/?igsh=Nnc1ZzhxaTFmcW10
Mode	Offline and online Mode
Venue	Seminar Hall, Main Block, SPIHER

No. of participants	220
Proceedings ISBN No.	ISBN- 978-93-341-4952-4
Abstracts	81
Technical Session - I	**Resource Person:** Dr. Dev Raj Joshi, Associate Professor, Central Department of Microbiology, Tribhuvan University, Kirtipur-4330346, Kathmandu, Nepal **TOPIC:** Circulation of potential pathogens in wastewater
Technical Session - II	Dr. N. Radhakrishnan, Professor (Research), Department of Biochemistry, Saveetha Institute of Medical and Technical Sciences (SIMATS), Thandalam, Chennai-602105 Tamil Nadu, India **TOPIC:** Exploring medicinal plants and Natural compounds for good health and well being
Technical Session – III (Online)	**Resource Person:** Dr.K.R.Mahendran, Scientist E-II Rajiv Gandhi Center for Biotechnology (RGCB) DBT Institute, Thiruvananthapuram-695014 Kerala, India **TOPIC:** Targeting antibiotic translocation across natural porins derived from bacterial pathogens
Technical Session - IV	**Resource Person:** Dr. MA. Poorna C Piyathilaka, Senior Lecturer Department of Environmental Technology University of Colombo, Homagama-10200, Sri Lanka **TOPIC:** Unveiling the hidden threat: Cyanobacterial toxicity & environmental health
Technical Session - V	**Resource Person:** Dr. K. Kalimuthu, Assistant Professor (Research) Department of Biotechnology SRM Institute of Science and Technology Kattankulathur-60320 Tamil Nadu, India **TOPIC:** Disserting advanced strategies on tackling priority ESKAPE pathogens

Technical Session – VI (Online)	**Resource Person:** Dr. D. Solairaj, Associate Professor, Food and Biological Engineering Jiangsu University, Jiangsu, Zhejiang-212013, China **TOPIC:** Antagonistic yeasts as alternative disease control strategy for post harvest fungal infections in fruits
Technical Session - VII	**Resource Person:** Dr. S. Anandhalakshmi Professor and Head, Department of Physiology, All India Institute of Medical Sciences (AIIMS), Madurai-625006 Tamil Nadu, India **TOPIC:** The role of Gut Microbiota in maintaining Human Health and Physiology
Technical Session – VIII	**Resource Person:** Dr. Pravin Dudhagara, Assistant Professor, Department of Bioscience, Veer Narmad South Gujarat University Surat-395007, Gujarat, India **TOPIC:** Deciphering the Microbiome - Exploring Its Influence on Health from Gut to Genitals
Technical Session – IX (Online)	**Resource Person:** Dr. Ram Prasad, Associate Professor, School of Life Sciences, Mahatma Gandhi Central University, East Champaran-845401, Motihari, Bihar, India **TOPIC:** Fungal Mediated nanomaterials for plant productivity

Brochure of '1st International Conference on Microbes and Applied Biotechnology'

Release of **Proceedings** of '1st International Conference on Microbes and Applied Biotechnology' by the **Vice Chancellor, Dr. N.Malmurugan**, SPIHER and it is received by the **Chief Guest, Dr.MA.Poorna C Piyathilaka,** Professor, University of Colombo, Sri Lanka on the Inaugural ceremony of DBT sponsored International conference on 6th Nov 2024.

Invited talk given by the Chief Guest, Dr. MA. Poorna C Piyathilaka, Professor, University of Colombo, Sri Lanka

Invited talk given by the Chief Guest, Dr. N. Radhakrishnan, Professor (Research), Department of Biochemistry, Saveetha Institute of Medical and Technical Sciences (SIMATS)

Oral presentation given by the conference delegate

Invited talk given by the Chief Guest, Dr. K. Kalimuthu, Assistant Professor (Research), Department of Biotechnology, SRM Institute of Science and Technology, Kattankulathur

Poster presentation assessment by Dr. Dev Raj Joshi, Associate Professor, Central Department of Microbiology, Tribhuvan University, Kathmandu, Nepal

Invited talk given by the Chief Guest, Dr. Pravin Dudhagara, Assistant Professor, Department of Bioscience, Veer Narmad South Gujarat University, Surat

Public Links

https://www.instagram.com/p/DBNeU-uvMlG/?igsh=NjlxY2JkM2lzeHV3

https://www.facebook.com/share/CrXq77ixHPzFwHgg/

https://www.linkedin.com/posts/spiherchennai_internationalconference-conference-microbiology-activity-7252524497210155009-Vcp9?utm_source=share&utm_medium=member_android

https://x.com/SpiherIndia/status/1846758907504427367?t=04UAElDa4hYApgp90wzInA&s=19

Research Article published under SDG 15

Vasantha-Srinivasan P, Srinivasan K, Radhakrishnan N, Han YS, Karthi S, Senthil-Nathan S, Chellappandian M, Babu P, Ganesan R, Park KB. Larvicidal and enzyme inhibition effects of Phoenix pusilla derived Methyl oleate and malathion on Aedes aegypti strains. Scientific Reports. 2024 Nov 26;14(1):29327.

Global NEST

Experimental study of biodegradability of organic waste with industrial waste combined with effluents: A comparison by vermicomposting technology

Graphical abstract

Abstract

Keywords: MSW, vegetable waste, yard waste, fruit waste, dairy industry, eudrilus eugeniae, decomposition, vermicomposting, etc

Green Campus Audit Certificate awarded to SPIHER for compliance with sustainable campus practices and Environmental Inspection Certificate recognizing SPIHER's adherence to green standards and eco-friendly initiatives.

NATURE SCIENCE FOUNDATION

A Unique Research and Development Centre for Society Improvement
(An ISO 9001:2015, 14001:2015, 45001: 2018 & 50001: 2018 Certified Organization
& Ministry of MSME Registered Organization)
Coimbatore - 641 004, Tamil Nadu, India. [www.nsfonline.org.in]

Certificate of Environment Audit

NSF/ECO AUDIT/SPIHER/2022/25

This is to certify that St. Peter's Institute of Higher Education and Research, Avadi, Chennai - 600 054, Tamil Nadu has successfully undergone 'Environment Audit' on 10th March 2022 and assessed the eco-friendly initiatives planning carried out in the campus to maintain a sustainable environment to the stakeholders were found to be excellent.

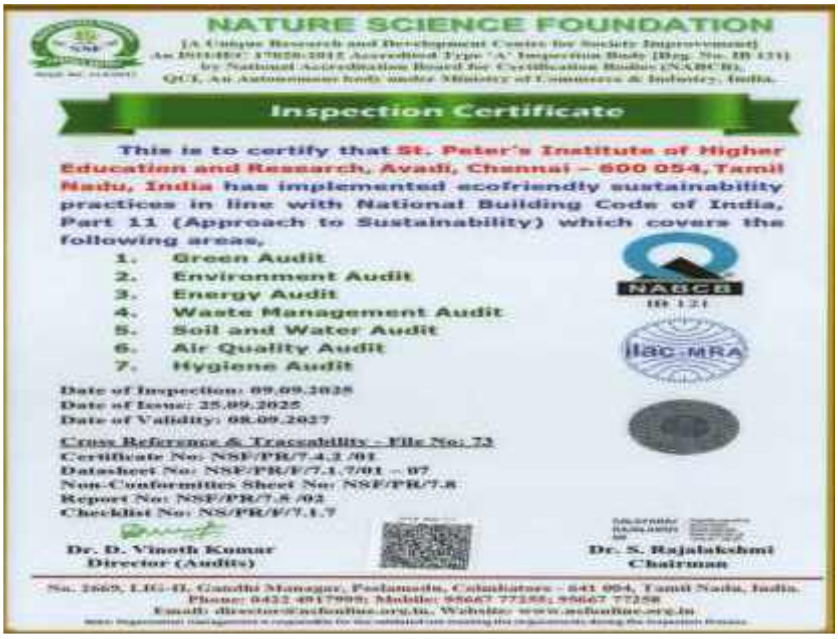
This Certificate is valid till 11th March 2025.
Ref. No: ISO/NSF/SER/R/07

(Dr. S. RAJALAKSHMI JAYASEELAN)
Chairman of NSF
Certified ISO QMS, EMS, EnMS, OHSMS

(Dr. SREEKALA K. NAIR)
Director of Research & Development, NSF
Certified Lead Environment Auditor.

(Dr. B. MYTHILI GNANAMANGAI)
Certified Auditor IGBC AP & ASSOCHAM
Indian Green Building Council

(Er. D. DINESH KUMAR)
BEE Certified Energy Auditor
Bureau of Energy Efficiency



NATURE SCIENCE FOUNDATION

Inspection Certificate

This is to certify that St. Peter's Institute of Higher Education and Research, Avadi, Chennai – 600 054, Tamil Nadu, India has implemented ecofriendly sustainability practices in line with National Building Code of India, Part 11 (Approach to Sustainability) which covers the following areas,

1. Green Audit
2. Environment Audit
3. Energy Audit
4. Waste Management Audit
5. Soil and Water Audit
6. Air Quality Audit
7. Hygiene Audit

Date of Inspection: 09.09.2025
Date of Issue: 25.09.2025
Date of Validity: 08.09.2027

Cross Reference & Traceability - File No: 73
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Datasheet No: NSF/PR/F/7.1.7/01 – 07
Non-Conformities Sheet No: NSF/PR/7.8
Report No: NSF/PR/7.8 /02
Checklist No: NS/PR/F/7.1.7

Dr. D. Vinoth Kumar
Director (Audits)

Dr. S. Rajalakshmi
Chairman

Best Green & Clean Campus Award presented to SPIHER for exemplary environmental stewardship and campus sustainability.

2024 Book Chapters → SDG Mapping

Sl. No	Faculty	Title of Book Chapter	Department	Publisher	SDG(s)	Justification
1	Dr. N. Rajeswari & Dr. D. Kavitha	**Detection of Insects, Birds & Wild Animals in Farming Land Using CNN**	Mechanical Engg. & Comp. Applications	Taylor & Francis	SDG 2, SDG 15 (Life on Land)	Protects crops and biodiversity.

Mapping of 2024 Patents to SDGs

Sl. No	Patent Title	Department	Date (2024)	Relevant SDG(s)	Justification
1	**Health Check-up Device for Pet Animals**	ECE	02.02.2024	SDG 15 (Life on Land), SDG 3	Promotes animal health and welfare.

Conclusion:

In conclusion, SDG 17.3.15 underscores the institution's dedication to strengthening partnership outcomes by ensuring that all collaborative initiatives are oriented toward tangible human development. Through sustained engagement with government bodies, industries, academic institutions, and community organisations, the institution fosters an environment where shared knowledge, resources, and expertise directly improve people's lives.

The focus on meaningful cooperation ensures that programmes remain inclusive, equitable, and responsive to the needs of students, faculty, and surrounding communities. By prioritizing human welfare in joint projects, training programmes, and outreach activities, the institution helps expand opportunities, enhance skills, and empower individuals to participate fully in sustainable development.