

Dr. RADHAKRISHNAN THULASI

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Profiles	👤 Thulasi Radhakrishnan 🆔 0000-0002-0015-606X	
Summary	Researcher in Geospatial Analytics and Environmental Sciences with expertise in remote sensing, GIS, participatory methods, and quantitative modelling. Awarded the Esri Young Scholar Award (2023) for impactful work on urban environmental disparities. Experienced in publishing in peer-reviewed journals, mentoring students, and advancing interdisciplinary research that bridges spatial science, community engagement, and environmental equity.	
Experience	Neeyal EnviroSolutions Environmental Consultant	June 2025 - Present Coimbatore, India
	<ul style="list-style-type: none">• Lead a full-cycle environmental consultancy serving industries, municipalities, and research institutions.• Oversee projects in regulatory compliance, including Consent to Establish (CTE), Consent to Operate (CTO), and Renewal of Consent (RCO) under TNPCB/CPCB norms.• Provide expert solutions for EPR compliance across plastic, e-waste, battery, used oil, and hazardous waste sectors.• Manage waste audits, environmental monitoring, and GIS-based spatial analysis for environmental planning.	
	Indian Council of Social Science Research (ICSSR) Doctoral Fellow	February 2024 - December 2024 Coimbatore, India
	<ul style="list-style-type: none">• Led participatory GIS study on household waste management, achieving a 98.7% response rate using 🔗 ArcGIS Survey 123 and Field Maps.• Implemented real-time data monitoring via 🔗 ArcGIS Dashboard, improving field data collection efficiency for 850+ households.• Created interactive 🔗 ArcGIS Story Maps (using Experience Builder) to communicate research findings to diverse stakeholders effectively.	
	Bharathiar University (DST PURSE Phase - II) Project Fellow	April 2021 - September 2022 Coimbatore, India
	<ul style="list-style-type: none">• Analyzed 30 years of urban expansion in Coimbatore City (1990-2020) using Landsat imagery (4-5, 7, 8), quantifying sprawl via Shannon Entropy, Urban Expansion Intensity Index (UEII), and landscape metrics.• Conducted multi-temporal Land Use and Land Cover (LULC) classification for Ambasamudram, Tamil Nadu, India, leveraging Sentinel-1 (Optical) and Sentinel-2 (Synthetic Aperture Radar) data fusion and optical derivative indices.• Evaluated surface urban heat island (SUHI) effects in Coimbatore City using Landsat 7 & 8, correlating land surface temperature (LST) with LULC changes to identify environmental impacts.• Identified 11 high garbage vulnerability zones in Coimbatore City using AHP-GIS, published in Environmental Science and Pollution Research (2024), and recognized with the 🔗 2023 Esri Young Scholar Award.	
	Bharathiar University Field Assistant (SWM Project)	November 2020 - February 2021 Coimbatore, India
	<ul style="list-style-type: none">• Provided GIS consultation to Coimbatore City Municipal Corporation on MSW management strategies.• Conducted a city-wide MSW quantification study, estimating 950 tons/day of waste generation.• Produced technical reports with LaTeX, including data visualizations and statistical analysis, published in the Journal of Material Cycles and Waste Management (2024).	

Education	Bharathiar University Environmental Sciences			January 2021 - December 2024 Doctor of Philosophy (PhD)
	Bharathiar University Environmental Sciences			June 2020 - May 2022 Master of Science (MSc)
	Government Arts College (Autonomous), Bharathiar University Geography CGPA: 8.4 (Rank)			July 2018 - April 2020 Master of Science (MSc)
	Government Arts College (Autonomous), Bharathiar University Geography CGPA: 7.0			June 2015 - April 2018 Bachelor of Science (BSc)
Software	ArcGIS Pro	ArcGIS Online	ArcGIS Survey123	Qualtrics
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	ArcGIS Dashboards	ArcGIS StoryMaps	QGIS	STAN
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	SPSS	SNAP	ArcGIS Experience Builder	Python
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R Programming	Open Route Service (ORS)	Folium	PostgreSQL/PostGIS	
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Projects	PhD Thesis Analyzing Urban Sprawl and Assessing Municipal Solid Waste for Sustainable Waste Management in Coimbatore City, India			January 2021 to December 2024
	Indian Council of Social Science Research Women at the Forefront: Assessing Female-Led Household Waste Management in Coimbatore City, India			February 2024 - December 2024
	SWM Project (CCMC - Bharathiar University) Municipal solid waste characterization and quantification as a measure towards effective waste management for Coimbatore City Municipal Corporation			2020 - 2021
Conference	National Conference on Recent Trends in Applications of Geoinformatics National			March 2024 Dindigul, India
	Title: Assessing Women's Knowledge, Attitudes, and Practices in Household Waste Management for Sustainable Solutions in Coimbatore City, India.			
	Esri User Conference - 2023 International			July 2023 San Diego, California, USA
	Title: AHP-GIS based Garbage Vulnerability Zone Mapping: A Case Study from Coimbatore City, India			
	National Conference on Environment and Ecology, Bharathiar University National			October 2023 Coimbatore, India
	Title: HarmonizeR: An Automated Raster Data Harmonization Tool for ArcGIS Pro			
DST-PURSE Supported Satellite Symposium, Bharathiar University National			September 2022 Coimbatore, India	
Title: Potential of Sentinel- 1 and Sentinel- 2 Data Combinations in Land Use and Land Cover Classification Using Machine Learning Based Approach				
8th International Conference on Environment and Ecology, Bharathiar University International			August 2022 Coimbatore, India	
Title: Analysis of Land Surface Temperature in Different Land Use Land Cover Classes of Coimbatore City, Tamil Nadu				

Publications

Radhakrishnan, T., Moranga, O. M., & Manimekalan, A. (2025). Synergetic use of Multi-Temporal Sentinel-1 and Sentinel-2 Data with Optical Derivative Indices for Land-use/cover mapping in Ambasamudram, Tamil Nadu, India [In preparation].

Radhakrishnan, T., Ghosh, D., & Manimekalan, A. (2025). Socioeconomic Determinants of Women's Knowledge, Attitudes, and Practices in Household Waste Management: A Cross-sectional Study in Coimbatore City, India. *Journal of Material Cycles and Waste Management*, [Under Review].

Radhakrishnan, T., Manimekalan, A., Ramaswamy, S. P., Kumar, V. N., Meena, P. S., & Pragasan, L. A. (2024). Cognizing waste: A comprehensive quantitative and characterization analysis of municipal solid waste in Coimbatore City Municipal Corporation, India. *Journal of Material Cycles and Waste Management*. <https://doi.org/10.1007/s10163-024-01933-7>

Radhakrishnan, T., Manimekalan, A., Ghosh, D., & Prasanna, R. (2024). Identifying high-vulnerable garbage accumulation areas in Coimbatore City, India: An AHP-GIS approach for effective waste management. *Environmental Science and Pollution Research*, 31(14), 21797–21810. <https://doi.org/10.1007/s11356-024-32486-9>

Ramamoorthy, R., **Radhakrishnan, T.,** & Manimekalan, A. (2022). Relationship Analysis between Rainfall and Vegetation Cover in Vaigai Dam Reserve Forest, Tamil Nadu, India Using GEE. *Applied Ecology and Forestry Science*, 5(1), 12–19. <https://doi.org/10.12691/aefts-5-1-3>

Awards and Achievements

Esri Young Scholar Award (2023)

San Diego, CA, July 2023

Esri User Conference, California, USA

[Esri Awards](#)

Prof. A. Ramesh Award

January 2020

Indian Geographical Society, Chennai, India

Ambassador

March 2024

Esri Young Professionals Network

ArcGIS StoryMaps

Women at the Forefront

August 2024

Assessing Knowledge, Attitudes, & Practices of Women in Household Waste Management in Coimbatore City, India

<https://arcg.is/05WaeD>

Invited Talks and Training

Workshop on Alternative Use of Jute/Cloth Bags In Lieu of Plastic Bags

15 July 2024

4 TN BN NCC, ¾ ALPHA COY NCC, Government Arts College (Autonomous)

Coimbatore, Tamil Nadu

GIS Techniques for Watershed Delineation and Management

18 March 2024

Tamil Nadu Forest Academy, Tamil Nadu Forest Department

Coimbatore, Tamil Nadu

Advance Technique in Forest Research: GIS Mapping of Forest

05 March 2024

Forest Genetic Division, Tamil Nadu Forest Department

Coimbatore, Tamil Nadu

Training and Certificates

Geography

December 2019

University Grants Commission (UGC) - National Eligibility Test (NET)

Machine Learning for Earth Science

May 2023

NASA ARSET

Cartography - MOOC

April 2023

Esri

Using Google Earth Engine for Land Monitoring Applications

June 2021

NASA - ARSET

Training and Certificates	Use of Solar Induced Fluorescence and LIDAR to Assess Vegetation Change and Vulnerability NASA - ARSET		March 2021
	Agricultural Crop Classification with Synthetic Aperture Radar and Optical Remote Sensing NASA - ARSET		October 2020
	Introduction to NASA Resources for Climate Change Applications NASA - ARSET		October 2020
	R Programming A-Z™: R for Data Science with Real Exercises! Udemy		October 2020
	Python for Data Science and Machine Learning Boot camp Udemy		September 2020
	Geo-Processing and Visualization on Web Platform IIRS - ISRO		February 2020
	Basics of Remote Sensing, Geographical Information System, and Global Navigation Satellite System IIRS - ISRO		December 2017
	Introduction to Population Grids and their Integration with Remote Sensing Data for Sustainable Development and Disaster Management NASA - ARSET		April 2021
	Geospatial Inputs for Enabling Master Plan Formulation Under AMRUT Sub-scheme IIRS - ISRO		July 2018
	Close Range Photogrammetry and Terrestrial Laser Scanning IIRS - ISRO		December 2017
Membership	UAV Remote Sensing Applications IIRS - ISRO		July 2017
	Esri Young Professionals Network (YPN) Member		July 2023 - Present
	International Society for Photogrammetry and Remote Sensing (ISPRS) Individual Membership		November 2022 - Present
Languages	English	Tamil	
Interests	Emerging Technologies	Geospatial Innovation	Lifelong Learning
	Hiking & Trekking	Professional Networking	