SREEDARSH T M

Remote sensing | Satellite Image Processing | PhD Aspirant in GIS &RS

Research Portfolio- https://sreedarsh.vercel.app

+919400668905 | tmsreedarsh@gmail.com | Location (Kanhangad-Kerala-India)

RESEARCH EXPERIENCE

Jan 2025 – June 2025

Project Intern | National Remote Sensing Centre (NRSC), ISRO, Hyderabad, India

- Project: "Burned Area Extraction using AI & ML (Deep Learning)."
- Created a labeled training dataset for identifying burned areas across India to train deep learning models.
- Gained hands-on experience in processing satellite imagery using Google Colab and the Earth Engine API.

June 2025 – Present

Independent Researcher / Self-Learning

- Preparing for the UGC NET examination
- Actively exploring new technologies in GIS and Remote Sensing, specifically in AI integration. And Working on a research paper and improving my technical skills

ACADEMIC QUALIFICATIONS

DEGREE	UNIVERSITY	SPECIALIZATION / STREAM	YEAR
M. Tech	Bharathidasan University	Geoinformatics	2025
M. Sc	Mangalore University	Geography	2023
B. Sc	Kannur University	Geography Sub: Geology, Statistics	2021
VHSE	Kerala Board of VHSE	ABFS (Science) Agriculture, Biology, Chemistry, Physics	2018

RESEARCH INTERESTS

Areas of Ongoing Learning / Current Learning Goals)

- Remote Sensing, GIS, Digital Image Processing of Satellite Data
- Microwave Remote Sensing (NISAR, SAR, INSAR)
- Python & Earth Engine, Machine Learning, and Deep learning
- Disaster Management/Spatial Analysis

ACCEPTED PAPERS / CHAPTERS

1. SP. Dhanabalan, R. Jegankumar, V. Sindhuja, K. Prakash, **TM. Sreedarsh**. Prioritization of Flood Susceptibility zones using MCDM techniques, TOPSIS, and the CF Model in the Manjalar Watershed: A Part of the Vaigai Basin, South India. DOI PDF
2. Dhanabalan, S. P., Das, J., Jegankumar, R., Sreedarsh, T. M., Sindhuja, V., & Libina, R. S. (2026). Integrating Geo-Environmental Factors and Ensemble Machine Learning for Landslide Susceptibility Assessment in Kodaikanal and its Environs, India **[Preprint].** Research Square. DOI PDF

MANUSCRIPTS IN PREPARATION

3. **T.M. Sreedarsh** & Poojith Kumar D P. "Coastal Vulnerability Assessment of Kasaragod and Kannur using Geospatial Techniques." (***Book Chapter)***

ACADEMIC PROJECT

Burned Area Extraction using AI & Deep Learning | *M. Tech Major Project*

- Applied deep learning algorithms to automate the detection of burned areas from satellite imagery.

Updated On 03/03/2026

Landslide Susceptibility Modeling using Machine Learning | *M. Tech Mini Project*

- Conducted bivariate analysis and ML techniques to map landslide risks in Kodaikanal and its environs.

Coastal Vulnerability Assessment using Geospatial Techniques | *M. Sc Major Project*

- Analyzed coastal changes and vulnerability indices for the Kasaragod and Kannur regions.

TECHNICAL SKILLS

Programming & Cloud	Python, Google Earth Engine (GEE) API
Development Tools	VS Code, Cursor, Google Colab, Git & GitHub
GIS Software	ArcGIS and ArcGIS Pro, (DSAS), QGIS, Google Earth Pro
DIP Software	Basic ENVI
Microsoft Office	Word, PowerPoint, Excel
Generative AI Tools.	ChatGPT, Gemini etc

INVITED TALKS & WORKSHOPS

Resource Person: Geospatial Data Processing with Python | *Oct 2025*

- **Host:** Department of Geography, Kannur University.
- Delivered a one-day hands-on workshop on "**Geospatial Data Processing and Visualization using Earth Engine API & Google Colab**" for the Postgraduate Diploma in Geo-Informatics.

CONFERENCE PRESENTATIONS

- **Site Suitability Analysis for Solid Waste Disposal in Kasaragod Taluk using GIS Techniques**
  - *13th International Conference on Multi-disciplinary Approach for Sustainable Development (UGIT)*, Bangalore University | *Dec 2024*
- **Coastal Vulnerability Assessment of Kasaragod and Kannur using Geospatial Techniques**
  - *International Conference on Clean Water, Good Health, Sustainable Cities & Communities (CWGHSCC)*, Lovely Professional University, Punjab | *Oct 2023*

WORKSHOPS & ADVANCED TRAINING

- **High-End Workshop (Karyashala) on Hyperspectral Sensing**
  - *Topic:* Agriculture and Water Resources Management.
  - *Organizer:* Accelerate Vigyan Scheme (SERB Initiative).
- **GIAN Workshop on SWAT Modeling (Soil & Water Assessment Tool)**
  - *Topic:* Impact of Landuse/Landcover and Climate Change on Water Resources.
  - *Host:* NIT Trichy (5-Day Workshop).
- **AI for Space Application Training Program**
  - *Host:* Hex-Star Universe | *Feb 2025*
  - Completed 25 hours of intensive training on AI applications in Space Science and Technology.

SEMINAR / CONFERENCE / WORKSHOPS / WEBINAR OVERVIEW

IIRS ISRO E-CLASS	BHUVAN TRAINING	ESRI-MOOC	NASA ARSET	NPTEL	OTHERS
10	**3**	**2**	**2**	**-**	**4**

INTERNATIONAL		NATIONAL		WORKSHOP	OTHERS
Journals	Conference	Journals	Conference		Books, Chapters, Monographs, Manuals
-	**2**	**-**	**-**	**2**	**1**

Certificates Links …… Click

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REFERENCES

I. **M.S.S. Praveen,** ***Scientist/Engineer*** **- 'SE'**, FEG/RSAA, National Remote Sensing Centre **(NRSC)**, Indian Space Research Organization (**ISRO**), Dept. Of Space, Govt. Of India, Hyderabad- -500 037 (T.S.). Mail *somasatyapraveen_m@nrsc.gov.in*

II. **Dr. R. Jegankumar,** M.Sc., M.Tech., Ph.D., Professor and Head, Department of Geography, School of Earth Sciences, Bharathidasan University, Tiruchirappalli - 620024, Tamil Nadu, Ph: 9894748564, jegankumar@bdu.ac.in

DECLARATION

I declare that the information furnished above is true and correct to the best of my knowledge and belief.

Place: Kanhangad

Signature: 

CONTACT

Languages – Malayalam, English, Tamil

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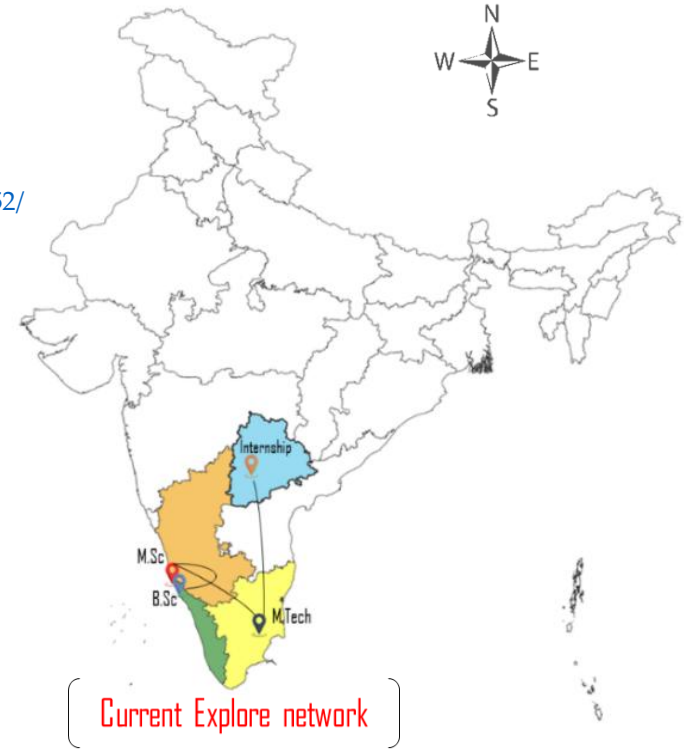
→ https://scholar.google.com/citations?user=5QaL5pkAAAAJ



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