



Anjita Neelatt Anilkumar

Ph.D. Student (Roll No. 214040012)

Remote Sensing Specialization, Department of Civil Engineering, IIT Bombay

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EDUCATION

Ph.D. | Remote Sensing, Indian Institute of Technology Bombay [CPI 9]..... (Jul. 2021 – Present)

Relevant Courses: Digital Image Processing of Remotely Sensed Data; Computing in Civil Engineering; Applied Statistics; Coastal & Ocean Environment

M.Tech | Remote Sensing and GIS, National Institute of Technology Karnataka, Surathkal [CPI 9.41] (Jul. 2018 – Jul. 2020)

Relevant Courses: Principles of Remote Sensing; Geographic Information Systems; Microwave Remote Sensing; Applications of UAVs

B.Tech | Civil Engineering, Federal Institute of Science and Technology [CPI 8.41] (Jul. 2013 – May. 2017)

Intermediate (CBSE) | Gregorian Public School, Maradu [Percentage 90.6%]..... (Year 2013)

Relevant Courses: Mathematics, Physics, Chemistry, Computer Science and English

Matriculation (CBSE) | Gregorian Public School, Maradu [CPI 10]..... (Year 2011)

TEACHING EXPERIENCE

Teaching Assistant, Indian Institute of Technology Bombay (Jul. 2021 – Present)

Microwave Remote Sensing in Hydrology (NPTEL); Engineering Survey; Digital Image Processing of Remotely Sensed Satellite Data; Data Processing in Remote Sensing.

Assistant Professor: Department of Civil Engineering, Toc H Institute of Science and Technology (Sep. 2020 – Jul. 2021)

- Taught undergraduate classes (engineering mechanics; informatics for infrastructure management, geographic information systems; environmental health and safety) and mentored students on academic projects and seminars.
- Associated with **Water Resources Department, Government of Kerala**, in connection with the preparation of **DPR for 'Abatement of Pollution and Rejuvenation of 21 rivers in Kerala'** (Nov. 2020 – Feb. 2021) and with **Kerala State IT Mission** in connection with **Mapathon Keralam** in the initial proposal phase. (Apr. 2021 – Jul. 2021)

ACADEMIC PROJECTS

Ph.D. Course Projects (Jul. 2021 – Nov. 2021)

- Shoreline Extraction from a Landsat Image using **Image Processing** Techniques – Guide: **Prof. Riddhi Singh**, IITB
- **Image Restoration** Techniques (Inverse and Wiener Filters) – Guide: **Prof. Indu J**, IITB

M.Tech Project (Jul. 2019 – Jul. 2020)

Coastal Vulnerability Assessment of the Kasaragod Coast in Kerala, West Coast of India – Guide: **Prof. G S Dwarakish**, NITK

- Prepared vulnerability maps for the coastal district based on estimated Coastal Vulnerability Index values.
- Assessed the influence of socio-economic factors on the overall vulnerability of the coast.

M.Tech Design Project (Jan. 2019 – May. 2019)

Shoreline Change Analysis using **Digital Shoreline Analysis System (DSAS)** – Guide: **Prof. G S Dwarakish**, NITK

B.Tech Project (Nov. 2013 – May. 2017)

Prediction of Compaction Parameters of Soil Using **Genetic Algorithm** – Guide: **Prof. Soumya V Krishnankutty**, FISAT

- Predicted optimum moisture content & maximum dry density from index properties of soil using genetic algorithm.

ACHIEVEMENTS AND PARTICIPATION

- Qualified GATE (Geomatics Engineering Paper) (Mar. 2024)
- Member of publicity team for the first PhD Connect Conclave 2023, organized by the Department of Civil Engineering at IIT Bombay.
- Qualified **GATE (Geomatics Engineering Paper)** with an **all-India rank of 38** (Mar. 2022)
- Received **Best Presentation Award at HYDRO-2020 International Conference** for the paper titled 'Study of Shoreline Change along Kasaragod district in Kerala, West Coast of India' (Mar. 2021)
- Participated in the NCCN-NITK 2020 conference (Paper Id No. 023WR-NCCNITK) (Jan. 2020)
- Presented a **poster** titled 'Aircraft Detection from a UAV Image' at the **INAC-4 National Conference held at Space Applications Centre, Ahmedabad** (Sep. 2019)

TECHNICAL SKILLS

Python | QGIS | ArcGIS | MATLAB | Google Earth Engine | ERDAS Imagine | SNAP | PolSAR | R | C | C++

PUBLICATIONS

- **N. A. Anjita** & Indu, J. (2023). *"Leveraging weather radars for desert locust monitoring"*. Remote Sensing Applications: Society and Environment, 100983. DOI: 10.1016/j.rsase.2023.100983
- Mundlamuri Satish Kumar, Venkatesh Kolluru, S. B. Gowthami, **N. A. Anjita**, N. Nayana, Linda Regi & G. S. Dwarakish. 2020 *"Monitoring Land Use and Land Cover Changes in Coastal Karnataka"*. (eds) Trends in Civil Engineering and Challenges for Sustainability. Lecture Notes in Civil Engineering, vol 99. Springer, Singapore. DOI: 10.1007/978-981-15-6828-2_57

CONFERENCES

- **N. A. Anjita**, & Indu, J. (2022, December). *Locust Swarm Signatures Using Weather Radars*. In AGU Fall Meeting Abstracts (Vol. 2022, pp. B24A-06). [<https://ui.adsabs.harvard.edu/abs/2022AGUFM.B24A..06N/abstract>]
- **N. A. Anjita** & G. S. Dwarakish. (2021, March) *Study of Shoreline Change along Kasaragod District in Kerala, West Coast of India*. In HYDRO-2020, 25th International Conference on Hydraulics, Water Resources, and Coastal Engineering organized by the Department of Civil Engineering, National Institute of Technology Rourkela, India in association with the Indian Society for Hydraulics (ISH)[Best Presentation Award]
- **N. A. Anjita**, Thiruvengadam, P., Vinayak Hugganavar and Indu, J. (2019, September). *Aircraft Detection from a UAV Image*. In the 4th ISSE National Conference INAC-2019 on 'Systems for Transforming India: Challenges & Opportunities'; hosted by the Space Applications Centre, ISRO, Ahmedabad.

CO-CURRICULAR

- Insects: **RADAR detection and threats to aircraft** – Virtual Talk (Jul. 2022)
- **Machine Learning with Python** (2 Weeks Certificate Program): E & ICT Academy, IIT Kanpur (Sep. 2021)
- Online Training Course on Principles of Ocean Remote Sensing and Applications, INCOIS (Jul. 2021)
- Online Training Course on Understanding Sea Level: **Data Analysis and Applications**, INCOIS (Oct. 2020)
- Online Course on Understanding of Coastal Ocean Processes using **RS and Numerical Modelling**, IIRS Dehradun (Sep. 2020)
- Online Course on **Neural Network and Deep Learning** - coursera.org/verify/B9HS86BBE96S (May. 2020)
- Three Days Course on **ArcGIS 2: Essential Workflows** (Registration No.00049654-3), ESRI (Sep. 2019)
- Organizing Committee Member of the Construction Expo Nirman, Civil Engineering Department, FISAT (Apr. 2017)
- Student Member of Indian Concrete Institute (Nov. 2014 – Oct. 2016)

HOBBY

Crochet | Junk journaling