

UTUKURI GOPI

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SUMMARY

GIS analyst and a passionate research enthusiast with background in Environmental science possessing expertise in spatial data management and analysis. Co-author of two International publications in waste water treatment. Proven track record of enhancing project efficiency by using tools like ArcGIS and QGIS. Completed an advanced course in Geospatial technology and proficient in multilingual communication, contributing to effective collaboration in diverse environment.

PROFESSIONAL EXPERIENCE

Project Assistant, Centre for Environment and Development

Oct 2025- Present

Assisted in ongoing projects of CED such as

1. Preparation of zonal master plan for ecosensitive zones of wildlife sanctuaries of Andra Pradesh.
2. Heat hotspots mapping for urban areas using Landsat and Geospatial technologies
- Vectorisation, thematic mapping, literature collection and study, field survey for socio-economic studies, water quality reports and documentation.
- Preparation of NDVI, NDWI, NDBI, LST using Landsat data

PUBLICATIONS

1. Farissi,S.,Gopi,U.,Ajith,G.,Palasseri,H.,Padmachandran,V.,Aiswarya,Muthukumar,A.,&Muthuchamy, M.(2024).**Photoelectrocatalytic oxidation of progesterone in water using carbon-coated titanium anode and vanadium pentoxide catalyst: dynamics of steroid removal.** Journal of Applied Electrochemistry, 54, 2077–2093.
2. Farissi,S.,Gopi,U.,Ajith,G.,Palasseri,H.,Padmachandran,V.,Aiswarya,Muthukumar,A.,&Muthuchamy, M.(2024).**Anodic oxidation of Esomeprazole in water by carbon-coated titanium(C/Ti) electrode: optimization and degradation analysis.** Journal of Environmental Quality Management,34(1).
3. Pre-print: Farissi,S.,Gopi,U.,Ajith,G.,Palasseri,H.,Prasanthi,T.,Muthukumar,A.,&Muthuchamy,M. (2023). **Catalytic oxidation processes for the degradation of progesterone using V2O5 catalyst and C/Ti anode: optimization and degradation dynamics.** <https://doi.org/10.21203/rs.3.rs-3292895/v1>.

EDUCATION

MSc Environmental Science

2021- 2023

Central University of Kerala, Kasaragod, Kerala, India.

CGPA: 7.40/10

BSc Computer Science

SR & BGNR govt. College, Kakatiya University, Telengana,India.

2017- 2021

CGPA: 7.72/10

PROJECTS

- 1. Atlas** 2025(Oct-Dec)
- Synthesized diverse spatial datasets into a standardized Atlas format, ensuring consistent scale, symbology, and data accuracy across 20+ thematic maps.
 - Map composition using ArcGIS, QGIS, and ArcGIS Pro
- 2. MSc Thesis** 2023 (Feb-June)
- Title: Optimization of Photoelectrocatalytic Oxidation for Progesterone Degradation
- **Advanced Water Treatment Research:** Investigated removal of progesterone, an emerging pollutant, using a combined photocatalysis and electrocatalytic oxidation process. Achieved a 95% reduction in COD for 10 mg/L solutions, showing a strong method for treating fat-soluble contaminants in wastewater.
 - **Catalyst Development & Testing:** Synthesized and tested Vanadium Pentoxide (V_2O_5) as a catalyst, optimizing its concentration and confirming structural stability across multiple treatment cycles.
 - **Characterization & Process Optimization:** Used FTIR, XRD, UV-Vis spectrophotometry, and COD analysis to study structural changes, identify intermediate groups (aldehydes, carboxylic acids), and determine optimal treatment conditions (pH 5, current density 95.5 mA/cm²).

INTERNSHIP

- Student Intern, National Centre for Earth Science studies** 2022 (May- June)
- **Project Title:** Analysis of Soil samples from Kabini river basin using X-ray fluorescence spectroscopy
 - Performed Environmental analysis of soil samples to identify the presence of major oxides and trace elements.

TECHNICAL AND RESEARCH SKILLS

GIS (ArcGIS, QGIS)

- Vectorisation, georeference and projection
- Data Integration and analysis
- Geodatabase creation
- Image processing - NDVI, NDBI, NDWI, LST
- DEM and 3D analysis
- LULC, Urban GIS, Network analysis, Hydrology
- Customized web integration

Laboratory & Environmental Research

- Advanced Oxidation Processes (AOPs)
- Water Quality Analysis
- Process Optimization
- Catalyst Management
- Analytical Instrumentation
- Data Interpretation
- Scientific Writing

ADDITIONAL INFORMATION

Certifications:

1. Proficiency in Geo-spatial technologies(CED)
2. LMS (U-tech International)
3. Power BI (Skill Nation)
4. Water Resources and Watershed Management(Swayam)
5. Workshop on Water Budgeting (CWRDM)

Achievements:

- Presented publication in national conference on Water, sustainable management & challenges.
- Co-author of two International Publications

Languages: English, Telugu, Hindi