

BIJAYLAXMI SAHOO

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Summary

Dual master's degree in Atmospheric Sciences and Oceanography with bachelor's in Mathematics. Hold expertise in RS and GIS with 4 years of experience. Excellent coder and skilled in MATLAB programming having expertise in large data handling and in numerical modelling. Enthusiastic learner and able to handle new areas of knowledge. Hold good oral and written communication skills.

Education

- Jan 2021 – May 2023 **Master of Science: Oceanography**
Department of Oceanography & Coastal Sciences, Louisiana State University – Baton Rouge, LA, USA
Score: 3.56/4 CGPA
Thesis: 20-year assessment of total suspended sediment (TSS) variability in Barataria Bay from MODOS ocean color using a combination of adaptive semi-analytical and neural network algorithms
- Jul 2016 – May 2018 **Master of Science: Atmospheric Sciences**
Department of Earth and Atmospheric Science, National Institute Of Technology Rourkela – Rourkela, India
Score – 7.83/10 CGPA
Project: "Urban response to Anthropogenic heating and some land-surface and near-surface atmospheric parameters over Chennai and Bengaluru."
Course work included Satellite Meteorology, Agriculture Meteorology, Aviation Meteorology, Oceanography, and Geophysics along with Atmospheric Science.
- Aug 2013 – Apr 2016 **Bachelor of Science: Mathematics**
Ramadevi Women's Autonomous College, Utkal University – Bhubaneswar, India
Score – 73.72%
Percentage of the mark in major (Mathematics) – 83.38%
Project: "Fuzzy logic."
- Aug 2011 – Apr 2013 **Higher Secondary: Science**
Ramadevi Women's Junior College – Bhubaneswar, India
Score – 72.33%
Majored in Physics, Chemistry, Mathematics, Information Technology
- Apr 2006 – Mar 2011 **High School**
Govt High School Basipitha – Odisha, India
Score – 88.67%

Professional Experience

- Dec 2019 – Nov 2020 **Junior Research Fellow – R&D, Indian Institute of Technology Bhubaneswar, India**
- Project: Development of Long-Term High-Resolution Land Use Land Cover (LULC) Data for Bhubaneswar Peri-Urban & Rural Areas and Future Projection
 - Analysis of COVID19 Outbreak in India using SEIR model
 - Field survey for meteorological data collection

May 2019 – Aug 2019 **Intern – Indian Institute of Technology Bhubaneswar, India**

- Studied Land Use Land Cover analysis of Bhubaneswar city for post and pre Fani tropical cyclone landfall using remote sensing and GIS techniques
- Attended meetings and presentations to learn more details about Tropical Cyclone Fani and different techniques.
- Prepared the study results for publication by collaborating with Dr. Debadatta Swain.

May 2017 – Jul 2017 **Intern – Indian Institute of Technology Kharagpur, India**
 Studied the Application of ANN in filling missing data gaps of wave data

Skills

Programming languages C, C++, VB, FORTRAN, PYTHON

Softwares MATLAB, GrADS, BRATS, RS & GIS software (SEADAS, SNAP, QGIS, ArcGIS, ArcGIS Pro, Erdas-Imagine, ILWIS), Hydrolight, Ecolight

Numerical Models WRF, ANN

Operating systems Linux, Windows, Mac.

Document preparation systems MS Word, LaTeX.

Instrument Skills Benchtop Spectrophotometer, ACS, LISST, Hyper-BB, Eco-bb, Fluorometer, C-Ops, HTSRB, PAR sensor, Above water radiometer, Microtop hand held radiometer, AWS, rain-gauge, hygrometer, anemometer, wind-ven, barometer, IR thermometer

Teaching Experience Teaching Assistant in Introduction to Oceanography in Louisiana State University
 Teaching Assistant in QGIS in Indian Institute of Technology Bhubaneswar, India

Workshops NASA Sponsored Workshop on Calibration and Validation of Ocean Color Remote Sensing. July 19th – August 13th, 2021, Bowdoin College, Schiller Coastal Studies Center (SCSC), Orr's Island, Maine
 Use of Earth Observation data for improved Urban Environmental Monitoring, 10th-11th July 2019, Geography and Environmental Science, University of Southampton and School of Earth Ocean and Climate Sciences, IIT BBS

Conferences TROPMET 2020
 Poster presentation on "Land Use Land Cover Changes in Bhubaneswar Urban Area PostTropical Cyclone 'Fani'".

Selected Papers Kishore, R., Sahoo, B., Swain, D., & Sahu, K. K. (2020). Analysis of COVID19 Outbreak in India using SEIR model. *arXiv preprint arXiv:2010.13610*.

Achievements Qualified JAM (Joint Admission Test for M.Sc.)
 Received National Rural Talent Scholarship
 Received OSTA Talent Search Scholarship

Leadership & Involvement Officer in Indian Student Association in Louisiana State University
 Volunteered at State Rally Day 2022, 2023 in Louisiana State University.
 Volunteered at athletics and cultural events in Ramadevi Women's Autonomous College.

Hobbies and Interests Learning history, geography and sociology of places.
 Learning new languages.
 Language proficiency: English (Proficient), Hindi (Advanced), Odia (Native), Sanskrit (Proficient), Punjabi (Advanced), Bengali (Intermediate).