

Ajit Kumar Swain

M.Tech (Geo-Spatial Technology)

Geospatial Analyst with 5 + years of experience

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Career Objective:

Utilize the knowledge and experiences I have gained throughout the years for development of the company alongwith self development.

Area of Working / Research Interest:

Remote Sensing & GIS, Spatial Decision Support System, Monitoring, Evaluation, Capacity Building, Digital image processing, Spatial Data Analysis, Livelihood Development & Income Generation Activities.

Academic Background:

- M.Tech in Geo-Spatial Technology from Department of Earth Sciences, Sambalpur University, Burla, Odisha, 2013-15.
- Post Graduate Diploma in Remote Sensing& GIS from the Department of Geography, Utkal University, Bhubaneswar, Odisha, 2011-12.
- Bachelor of Science in Chemistry (Hons. with Distinction) from Ravenshaw University, Cuttack, Odisha, 2008-2011.
- Intermediate of Science from Baba Bhairabananda Mahavidyalaya, Jajpur, Odisha under CHSE, Odisha, 2006-2008.
- Schooling from S.S. High School, Jajpur, Odisha under BSE, Odisha, 2003-2006.

Software Skills:

Microsoft Office, Erdas Imagine, ArcGIS, QGIS, Google Earth Pro.

Language Proficiency:

English, Hindi, and Odia

Work Experiences:

1. Employer: Odisha Forestry Sector Development Society, Bhubaneswar, Odisha

Role: Subject Matter Specialist (M&E, GIS/MIS, REDD+)

Job Period: 23.11.2017 to 30.06.2020.

Job Location: Divisional Forest Office, Baripada, Odisha

Project Worked: Odisha Forestry Sector Development Project, Phase-II

Sponsor: Japan International Cooperation Agency (JICA), Japan and Govt. of Odisha

Responsibilities:

- ❖ Assisted Divisional Forest Officer, Baripada in Monitoring the Annual Plan and Project Activities of OFSDP-II at Baripada Forest Division.
- ❖ Compiled the MIS/ GIS Data, Monitored Progress based on MIS and GIS periodically.
- ❖ Regularly verified, maintained, and updated the Information Management System (IMS) portal at divisional level for final submission of information to the state portal.
- ❖ Ensure Survey and Demarcation of Assigned and Treatment Area of Forest Areas
- ❖ Coordinated with Forest Ranges Officers, Project Staffs, and Stakeholders for capacity building and trained them to use the state IMS portal.
- ❖ Assisted in Biomass Assessment Surveys, Updates on MRV Protocols, and Reporting.

2. Employer: Odisha Space Applications Centre (ORSAC), Govt. of Odisha, India

Role: Project Assistant

Job Period: 10.05.2016 to 20.11.2017

- i. **Project worked:** Coordinated Programme on Horticulture Assessment and Management using Geoinformatics (CHAMAN)

Sponsor: Ministry of Agriculture and Farmers Welfare, Govt. of India.

Responsibilities:

- Area assessment and production forecasting of major horticultural crops Chili and Tomato in selected districts of Odisha state using Remote Sensing Technology and Sample Survey Techniques
- Geospatial Applications for Horticultural Development and Management Planning (Site Suitability, Post-Harvest Infrastructure, Crop Intensification, GIS database creation, Orchard Rejuvenation, Aqua-horticulture)
- Detailed scientific field level studies for developing technology for crop identification, yield modeling, and disease assessment.

ii. Project worked: Forecasting Agricultural output using Space, Agro-meteorology and Land-based observations (**FASAL**)

Sponsor: Ministry of Agriculture and Farmers Welfare, Govt. of India.

Responsibilities:

- Generating crop forecasts at District/State/National level for paddy/rice crop of the state in both Kharif and Rabi Seasons, using the procedures developed by Space Applications Centre, ISRO at MNCFC, New Delhi, India.
- Both optical and microwave Remote sensing data analysis for crop area enumeration, crop condition assessment, and production forecasting.
- National/State level crop production forecasts generation using multi-date AWiFS NDVI product (56 m resolution) and multi-date RISAT-1 SAR data (18m resolution), SENTINEL-1A(20m resolution).

iii. Project worked: Crop Intensification Project

Sponsor: Ministry of Agriculture and Farmers Welfare, Govt. of India.

Responsibilities:

- Delineate Rabi crop Area for the year 2016 -2017 using Landsat 8 OLI and RESOURCESAT-2 LISS III data.
- Delineate Post Kharif rice fallow lands using satellite-derived Kharif rice area and the Rabi crop area information.
- Assess the suitability of the Post Kharif rice fallow lands for short duration pulses by integrating various edaphic-climatic factors in GIS.
- Generation of multi-criteria based information products on crop growing suitability in these post Kharif rice fallow lands.

3. Employer: Indian Institute of Remote Sensing, Indian Space Research Organization (ISRO), Dehradun, India

Role: M. Tech Trainee

Job Period: 5.3.2015 to 23.7.2015

Project Title: National Carbon Project (ISRO Biosphere Geosphere Programme)

Sponsor: Indian Space Research Organization (ISRO), Govt. of India.

Responsibilities:

- Vegetation carbon pool (VCP) data analysis in the National Carbon Project (ISRO).
- Above-ground biomass and vegetation carbon pool assessment of Himalayan state forests on the ISRO Geosphere-Biosphere Program (IGBP).
- Geo-spatial database management, regression analysis, and different types of vegetation indices calculation using multi spatial and multi-temporal remote sensing data.

Publications in Referred Research Journal:

- **Swain, Ajit K.** Barik, Kamal K. 2015. Spatial Greening Pattern Estimation of Himachal Pradesh, India Using IRS-P6 AWiFS Seasonal Data. International Journal of Science and Research, 4, (8), 1501-1505.
- **Swain, Ajit K.** Das, Biswajit. 2015. A novel optimal medium resolution remote sensing image classification using the Neuro-fuzzy approach. International Journal of Current Research, 7, (8), 19176-19180.
- **Swain, Ajit K.** Das, Biswajit. 2019. Monitoring the Declination of Inland Water Bodies of Bhubaneswar City: A Geospatial Approach. International Journal of Advance and Innovative Research, 6, (1), 68-75.

Publications in Conference Proceedings:

- **A.K. Swain,** Ansuman Jena “Information-Based Geospatial Visualization of International Tourist Spot Chilka” has been published in the proceedings of Odisha Bigyan Congress, Bhubaneswar, Odisha, India, 2014.
- **A.K. Swain,** Ansuman Jena “Climate change and its worst effect on sea erosion of coastal Odisha - An analytical approach of remote sensing and GIS techniques” has been published in the proceedings of Odisha Environment Congress, Bhubaneswar, India, 2014.
- **A.K. Swain,** Sumit Choudhary, Arpan Mahapatra “Market Analysis and Segmentation Using GIS as an Intellect Tool – A Case Study of Herbal Cosmetic Products Market in the Greater Guwahati City” has been published in the compendium of National Seminar on Retail Marketing at Crossroads: Emerging challenges due to Liberalisation & Globalisation, Srusti Academy of Management, Bhubaneswar, Odisha, 2015.
- **A.K. Swain,** Biswajit Das, Ranjita Swain “Sustainable Water Management in Agricultural and Natural Systems – A Case Study of Bargarh District of Odisha” has been published in the book of abstracts of Indian Science Congress – Bhubaneswar Chapter, 2016.
- **A.K. Swain,** Ranjita Swain, Ansuman Jena “Monitoring Urban Infrastructure of Smart City Bhubaneswar Using Geospatial Technology” has been published in the book of abstracts of India Science Congress – Bhubaneswar Chapter, 2016.
- Biswajit Das, **A.K. Swain** “Geo-Spatial Monitoring of Forest Fragmentation – A Case Study of Sambalpur District of Odisha” India has been published in the proceedings of National Conference on "Recent Advances in Earth and Atmospheric Monitoring from Space" at Satyabhama University, Chennai, 2016.
- **A.K. Swain,** Manoranjan Jena, Biswajit Das, Ranjita Swain “Concern over Pollution in Two Major Rivers of Odisha, India: A Case Study of Mahanadi and Brahmani Rivers has been published in the proceedings of National Conference on Advances in Water Resource and Environment Research at Satyabhama University, Chennai, 2017.

Participations and Research Paper Presentations Conferences:

1. Participated and presented a research paper on “Applications of Remote Sensing and GIS in mapping of Natural Resources” held at the 36th Annual Conference of the Eastern Geographical Society” organized by P.G. Department of Geography, Utkal University, Odisha on 15.03.2012.
2. Participated in the “XIII International Seminar on Mineral Processing Technology (MPT-2013)” held at Institute of Minerals and Materials Technology (IMMT), Bhubaneswar on 12.12.2013.
3. Participated and presented a research paper on “Information-Based Geospatial Visualization of the International Tourist Spot – Chilka Lake” in the National Seminar on “Science and Technology for Human Development” on the occasion of the 17th Odisha Bigyan Congress under the auspices of the Siksha ‘O’ Anusandhan University, Bhubaneswar and Indian Science Congress Association: Bhubaneswar Chapter in collaboration with the Odisha Environment Society on 05th December 2014.
4. Participated and presented a research paper on “Climate Change and its Worst Effect on Sea Erosion of Coastal Odisha – An Analytical Approach of Remote Sensing and GIS Techniques” at the Odisha Environment Congress – 2014 on the theme “Climate Change and Environment – Issues and Challenges for Odisha” organized by Regional Museum of Natural History, Bhubaneswar; Center for Environment and Development; Human Development Foundation-cDAR and Regional Center for Development Cooperation between 22nd to 24th December 2014.
5. Participated in the Conference on “Global Warming, Sea Level Rise and Livelihood Adaptation Strategies Along East Coast India” at the Odisha Environment Congress – 2014 held at FET (ITER) campus, S O A University, Bhubaneswar, Odisha organized by Dept. of Civil Engineering, Faculty of Engineering & Technology (ITER), S O A University, Bhubaneswar and Kwantlen Polytechnic University, Vancouver, Canada on 27th December 2015.
6. Participated and presented a research paper on “Market Analysis and Segmentation Using GIS as an Intellect Tool – A Case Study of Herbal Cosmetic Products Market in the Greater Guwahati City” in the “16th National Seminar on Retail Marketing at Crossroads: Emerging challenges due to Liberalisation & Globalisation”, Organized by Srusti Academy of Management, Bhubaneswar, held on 31st January 2015.
7. Participated and presented a research paper “Sustainable Water Management in Agricultural and Natural Systems – A Case Study of Bargarh District of Odisha” in the National Seminar on Science and Technology in the National Development of India Jointly Organized by Indian Science Congress Association (ISCA) Bhubaneswar Chapter and KIIT University, Bhubaneswar held at KIIT University, Bhubaneswar.

Technical Presentation as a Resource Person in Training/Workshops:

1. Delivered a Technical Talk and Presentation on Training-Cum-Orientation Programme on Survey, Demarcation of Forest Area arranged for Divisional and Field Staffs of Baripada Forest Division on 17th February 2018 held at Baripada Forest Division.
2. Delivered a Technical Talk and Presentation on Training-Cum-Orientation Programme on One-day training on Web-based Reporting Management in OFSDP-II arranged for Divisional and Field Staffs of Baripada Forest Division on 28th May 2018 held at Baripada Forest Division.
3. Delivered a Technical Talk and Presentation on Workshop on CMRV & REDD+ arranged for Divisional and Field Staffs of Baripada Forest Division on 16th February 2019 held at Baripada Forest Division.
4. Delivered a Technical Talk and Presentation on Workshop on CMRV & REDD+ arranged for Divisional and Field Staffs of Baripada Forest Division on 16th February 2019 held at Baripada Forest Division.
5. Delivered a Technical Talk and Presentation on Workshop on Implementation of Soil & Moisture Conservations Measures, Raising of Nurseries & Plantation under JFM & Non-JFM Mode under OFSDP-II arranged for Divisional and Field Staffs of Baripada Forest Division on 04th June 2019 held at Baripada Forest Division.
6. Delivered a Technical Talk and Presentation on Workshop on Implementation of on Forest Protection & Management, FireLine Treatment under OFSDP-II arranged for Divisional and Field Staffs of Baripada Forest Division on 10th July 2019 held at Baripada Forest Division.
7. Delivered a Technical Talk and Presentation on Consultative Workshop on Environmental & Social Management System Framework (ESMSF) and Scheduled Tribe & Forest Dependent Planning Framework (STFDPF) arranged for Divisional and Field Staffs of Baripada Forest Division on 30th August 2019 held at Baripada Forest Division.

Participation in Training and Exposures:

1. Basics of Remote Sensing, GIS, Map Digitization & layout, Surveyat GRCS PVT. LTD., Bhubaneswar, Odisha, India (From 5.1.2012 to 20.4.2012)
2. Training on Digital cartography at CADCAM Academy, Bhubaneswar, Odisha, India from 10.7.2014 to 20.1.2015)
3. Digital Image Analysis of RISAT Microwave Data and forecasting of Kharif Rice Crop production of Odisha for the year 2016-17 at Mahalanobis National Crop Forecast Centre, New Delhi, India (From 11.09.2016 to 20.09.2016)

4. Digital Image Analysis of Sentinel-2 Microwave Data and forecasting of Rabi Rice Crop production of Odisha for the year 2017-18 at Mahalanobis National Crop Forecast Centre, New Delhi, India (From 19.03.2017 to 27.03.2017)
5. Digital Image Analysis and Delineating Post Rice Kharif Fallow land of Odisha for the year 2016-17 at NRSC, ISRO, Hyderabad, India (From 1.06.2017 to 30.06.2017)
6. Digital Image Analysis of Sentinel-2 Microwave Data and forecasting of Kharif Rice Crop production of Odisha for the year 2017-18 at Mahalanobis National Crop Forecast Centre, New Delhi, India (From 18.09.2017 to 22.09.2017)
7. Orientation Training on GIS, MIS, RS, REDD+ organized at Geomatics Cell of OFSDS, Bhubaneswar during December 04 – 16, 2017.
8. Remote Sensing Applications in Forest, Environment and Climate Change at Space Application Centre, ISRO, Ahmedabad (From 19.08.2019 to 23.08.2019)

Personal Information:

Date of Birth : 07th April 1991.
Gender : Male
Marital Status : Single
Last Salary Drawn : 5,04,000 / Year
Expected Salary : 5,50,000 / Year
Reporting Period : 2 weeks

Permanent Address : At-Arangabad, Post-Mirzapur, Via- Dharmasala
Dist-Jajpur, Pin-755008, Odisha, India.

Declaration:

I do hereby solemnly declare that all the information provided here before is true and correct which I can illustrate/discuss/produce evidence/testimonials thereof, as the case may be and as desired.

Date: 06.01.2020

Place: Jajpur, Odisha, India

Ajit Kumar Swain