

Saumya Srivastava

(GIS Technician)

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Professional Summary

- Currently working as GIS Technician at District GIS Cell, Tehri, Garhwal, Uttarakhand from March 2020 on project entitled **“District Development Planning and Disaster Management”**.

Objectives:

- To design and map the Tehri district's neighborhoods, cities and villages.
 - To store, manipulate, and analyze physical, social, and economic data of the district.
 - Analyze problems more quickly and thoroughly, formulate solutions, and monitor progress toward long-term goals for the community.
 - Mapping the delivery of utilities and planning for service interruptions
 - To strengthen and develop capacity to undertake disaster mitigation strategies.
- Employed on the post of GIS Analyst at Amnex Infotechnologies Pvt. Ltd, Ahmedabad, Gujarat from Oct 2018 to July 2019 on project entitled **“Crop Estimation and Loss Assessment using remote sensing and Geospatial technology for the State of Gujarat”** utilizing unique technology for the Solution of farming to analyze crop areas.

Objectives:

- Crop production forecasting
- Agricultural statistics analysis
- Monitoring changes in the cropping pattern
- Preparation of digital crop map over a large area.

Paper Publications

1. Forest Fire Damage Assessment using GIS in Uttarakhand – a case study

Publisher: IOSR Journal of Applied Geology and Geophysics (IOSR-JAGG)

Link: <http://www.iosrjournals.org/iosr-jagg/papers/Vol.%208%20Issue%204/Series-2/E0804025160.pdf>

Description: Forests are one of the important lifelines on the earth and significantly important for the living being. The damage is not only concerned about forest loss but also the terrestrial ecosystem. Every year the Himalayan forest is very much destroyed by the forest fire, the study area Bagheswar and Almora districts depict one of the victims of these human-induced acts. With the reinforcement of climate change, to monitor the present day scenario of the forest fire, remote sensing data plays an enormous role. We use multispectral and microwave data to monitor the forest fire with a comparative view analysis. The fusion work of multispectral and microwave data performed to enhance work efficiency. Relationship between Slope and Forest Fire Intensity played important role to determine the vigorous pattern of forest fires in hilly regions. The damaged area assessment due to the forest fires shows highly affected zones. With the help of forest fire assessment, government can plan better policies and methods to preserve the forests.

2. COVID19 Lockdown has become a stairway of heaven for nature: A case study of Delhi using geospatial technique

Publisher: International Journal of Scientific & Engineering Research (IJSER)

Link: <https://www.ijser.org/onlineResearchPaperViewer.aspx?COVID19-Lockdown-has-become-a-stairway-of-heaven-for-nature-A-case-study-of-Delhi-using-geospatial-technique.pdf>

Description: Urbanization is the result of anthropogenic activities that is responsible for the changes in nature. Rapid growth of urbanization, industrialization and transportation are disturbing the original nature of the specific area. Delhi is well known for one of the most pollutes cities on the global level. The study is focused on the adverse effect of human induced activities in the environment. PM₁₀ and NDBI analysis based maps are generated to understand the fluctuation of the values within a year. To analyze the intensity of human interference in the environment before and during COVID 19 lockdown and its impact, Delhi has been taken out for the study area. Optical data plays an important role to extract all the required data for environmental analysis. Landsat 8 data has been used of 28 April, 2019 & 30 April, 2020 for all parameter acquisitions and comparative analysis of PM₁₀, LST, NDVI and NDBI. All these maps and graphs are generated for better qualitative and quantitative analysis. Relationship between all the above parameters helps a lot to understand the impact and relation of each parameter on the others. PM₁₀ data has been derived to analyze the fluctuation in data due to least human activities. NDBI is calculated to mark out the highly populated areas and its impact on the nature. Anthropogenic activities are highly destructive for the nature and by analyzing its impact on the nature; government can make better policies and plans to reduce the human interference. Preserving the nature is very important to save human and other living beings lives.

Projects during Post Graduation course

Title: Soil Moisture Estimation using LANDSAT 8 data & Biophysical parameters using R Studio

Description: To assess the performance of Optical/IR satellite data to infer soil moisture status in the upper surface layer over Varanasi district.

Title: Estimation of PM10 using geospatial technique over Dehradun city, Uttarakhand.

Description: To retrieve PM10 pollutant in the atmosphere of Dehradun District using geospatial data.

Title: Suitable sites for e- waste management in Asansol city, West Bengal.

Description: Suitable site selection of dumping zones for e-waste materials using multiple raster and Vector analysis like; elevation, settlement, road distance, river, and soil type.

Academic Qualifications

Qualification	Institute	Board/ University	Year of Passing	Marks (%)
M.Sc. in Remote Sensing & GIS	S.S.J Campus Almora, Uttarakhand	Kumaun University	2018	74.9%
B.A. (Hons.) Geography	Banaras Hindu University, Varanasi	BHU	2016	72.5%
12 th	St. Anthony Convent Girls' Inter College, Allahabad	UP State Board	2013	74.8%
10 th	St. Anthony Convent Girls' Inter College, Allahabad	UP State Board	2011	69%

Certifications

Certification	Issued By	Year
29th North East India Geographical Society Biennial <i>Conference</i> cum XI <i>International</i> Geographical Union (IGU) Commission	B. Booroah College, Guwahati, Assam	Feb 2018
National Conference on Geomatics Natural Resource Management	Jamia Millia Islamia University, Delhi	Feb 2017
Microwave Radar Remote Sensing and its applications	IIRS Dehradun and ISRO (EDUSAT)	Apr 2017
AutoCAD Basics	Zenesis InfoTech, Varanasi	Jul 2017
Python Basics	UP.Tech, Varanasi	Jul 2017

Technical Skills

Software	Proficiency
Arc GIS (10.8)	Intermediate
ArcGIS Pro	Intermediate
ArcGIS Online	Intermediate
Quantum GIS (3.14)	Intermediate
ERDAS Imagine (2014)	Intermediate
Google Earth	Intermediate
R	Intermediate
Python	Basic
AutoCAD	Basic
Microwave Data Analysis	Basic

Field Work & Extra-curricular activities

- One day field survey in Kheda district, Gujarat “Point data collection for different crops over Kheda region” (2019)
 - One month field work in Varanasi district, Uttar Pradesh “Data collection of Surface Temperature, Soil Moisture, Leaf Area Index, Crop height” (2018)
 - One-week field work at Almora, Uttarakhand “Mapping of Departments of S.S.J. Campus, K.U along with GPS Points using GPS GRAMIN in ArcGIS”(2017)
 - Active Volunteer in NSS (National Service Scheme).
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Personal Information

Interests: Reading, GIS Technical Analysis, Sketching
Date of Birth: July 15, 1996
Language known: English, Hindi
Nationality: Indian

Other Information

Total Exp: 1 yr 4 Months
Relevant Exp: ArcGIS (3 yr), GIS Analyst (10 months), GIS Technician (7 months), GPS (1.5 yr), SW maps (10 months)
CTC: 2.4 lac per annum
ECTC: 5 lac per annum

Declaration

I hereby declare that the above information is correct and best of my knowledge and belief.

Saumya Srivastava