

## **RESUME**

### **GAURAV SINGH**

Research Scholar

Indian Institute of Technology Roorkee

Roorkee, Uttarakhand

India – 247667

Contact No. +91-9897082872, +918273885988

Email Id: [iitr.gauravsingh@gmail.com](mailto:iitr.gauravsingh@gmail.com)  
[gaurav2k2ali@gmail.com](mailto:gaurav2k2ali@gmail.com)



### **Objectives**

A hard working, dedicated, self-motivated and goal oriented person willing to learn from external environment to carve out a niche for myself in the area of Research and Technology and will contribute effectively and efficiently to address various Environmental issues also apply my knowledge and my skill, in addition to my team and leadership qualities in an esteemed organization, which provides an encouraging and challenging work environment of original thinking, experimentation and innovation.

### **Educational Qualification**

- **Ph.D.** (Synopsis Submitted) in Remote Sensing and GIS from Indian Institute of Technology Roorkee, Uttarakhand, 2019.
- **Post Graduate Diploma** in Remote sensing and GIS specialization in Geosciences from Indian Institute of Remote Sensing, (IIRS), ISRO Dehradun, 2012.
- **M.Sc.** in Geology with first class from D.S. College Aligarh (Dr. BRAU Agra), 2011.
- **B.Sc.** (Geology, Physics and Math) from D.S. College Aligarh (Dr. BRAU Agra). 2009.

### **Technical Skills**

- Proficiency in working with Total Station, DGPS and GPS.
- Handling and operating Satellite Earth Station of NOAA 12, 13, 14, 15, 16, 17, 18 and 19 Data.
- Identification and classification of Geological Map types.
- Instruments: Use of clinometers compass and brunton compass.
- Laboratory Experience: Hand specimen study And Microscopic Studies
- Knowledge of DGPS (Differential Global positioning System) and GPS (Global Positioning System).
- Elastic Search Experience.
- Knowledge of all Software used for Remote Sensing and GIS.
- ArcGIS, Erdas Imagine, ILVIS, Geomatica and ENVI.

### **Other Qualification and Achievements**

- Qualified **CSIR-UGC NET-JRF/SRF** June 2011 Exam in Earth Sciences.
- Qualified **UPSC Geologist** written exam 2011.
- Qualified **UPSC Geophysicist** written exam 2014.
- Travel Grant Award from Science and Engineering Research Board (SERB) Department of Science and Technology (DST), Govt. of India, New Delhi.
- Student Travel Grant Award AGU Fall Meeting 2018 from American Geophysical Union.

### **Experience**

- 5 years' experience of handling and operating Indian Institute of Technology Roorkee Satellite Earth Station (IITR- SES) Department of earth Sciences. Sponsored by Department of Science and Technology (Govt. of India) New Delhi.
- Organized and participated one day QIP workshop on “Geoinformatics in Earthquake Study” organized by Earth Sciences and Earthquake Engineering Department of IIT Roorkee on 28th November 2015.
- Organized and participated five days short term course on “Geoinformatics in Earthquake Studies” Sponsored by Ministry of Earth Sciences, Govt. of India.

Organized by Department of Earth Sciences and Department of Earthquake Engg. IIT Roorkee

- Organized one week International training course on “GIS concept and Applications” organized by Earth Sciences and Earthquake Engineering Department of IIT Roorkee, sponsored by NORSAR, Norway in June 2015.
- Indian Institute of Technology Roorkee NPTEL Online Course.  
Teaching Assistant from 01-08-2016 to 31-12-2016  
Course Name - Geographic Information Systems
- Indian Institute of Technology Roorkee NPTEL Online Course.  
Teaching Assistant from 01-01-2017 to 31-05-2017  
Course Name - Introduction to Remote Sensing
- Indian Institute of Technology Roorkee NPTEL Online Course.  
Teaching Assistant from 01-06-2017 to 31-10-2017  
Course Name - Digital Image Processing Of Remote Sensing Data
- Indian Institute of Technology Roorkee NPTEL Online Course.  
Teaching Assistant from 01-01-2018 to 31-05-2018  
Course Name - Digital Elevation Models and Applications
- Indian Institute of Technology Roorkee NPTEL Online Course.  
Teaching Assistant from 01-08-2018 to 31-12-2018  
Course Name - Remote Sensing and Digital Image Processing of Satellite Data

### **Computer Knowledge**

- Certificate course in Office Automation and Internet.
- MS-OFFICE.
- Operating System Windows-Ubuntu, Linux, XP, Vista, Windows 7, 8 and 10.

### **Field Work**

- 7 days of field work at Himachal Pradesh, Punjab and Uttarakhand in 2015.
- 15 Days of field work at Jaipur, Udaipur, Ajmer (Rajasthan) in 2009.
- 20 days of field work at Leh Ladakh, Manali, Kullu. (Himalaya Region) in 2010.
- 21 days of field work at Bhuj, Ahmedabad, Junagarh (Gujarat region) in 2011.

### **Details of Publications:**

- Mapping and Change Detection Study of Nepal-2015 Earthquake Induced Landslides. Kanika Sharma, Arun Kumar Saraf, Josodhir Das, Suman Sourav Baral, Susanta Borgohain and Gaurav Singh. Journal of the Indian Society of Remote Sensing. <https://doi.org/10.1007/s12524-017-0720-8>.
- Structural controls on topography and river morphodynamics in Upper Assam Valley, India. S. Borgohain, J. Das, A.K. Saraf, G. Singh & S.S. Baral. Geodinamica Acta, 29, 62-69, 2017. DOI: 10.1080/09853111.2017.1313090.
- Comparison of Cartosat, ASTER and SRTM DEMs of different terrains. Baral, S.S., Das, J., Saraf, A.K., Borgohain, S. and Singh, G., 2016. Asian Journal of Geoinformatics, Vol.16, No.1 (2016).
- Morphodynamic changes of Lohit River, NE India: GIS-based study. Susanta Borgohain, Josodhir Das, Arun Kumar Saraf, Gaurav Singh and Suman Sourav Baral. Current Science, 110 (9), 1810-1816, 2016. doi: 10.18520/cs/v110/i9/1810-1816.
- Remote\_Sensing and GIS Based Analysis of Geomorphic Evidences and Morphometry of Active Faults in Kachchh Area. Eirin Kar, Suman Sourav Baral, Arun Kumar Saraf, Josodhir Das, Gaurav Singh, Susanta Borgohain. Journal of the Indian Society of Remote Sensing, 44, 1-10, 2016. doi: 10.1007/s12524-016-0588-z.
- Thermal anomaly from NOAA data for the Nepal earthquake, Suman Sourav Baral, Kanika Sharma, Arun Kumar Saraf, Josodhir Das, Gaurav Singh, Susanta Borgohain, Eirin Kar. Current Science, 110 (2), 2016.

### **Book Chapter**

Geoinformatics in Mapping of Fog-Affected Areas over Northern India and Development of Ion Based Fog Dispersion Technique Saraf, A.K., Choudhury, P., Das, J., Singh, G., Borgohain, S., Baral, S.S. and Sharma, K., 2016, November. International Conference on Geo-Informatics in Resource Management and Sustainable Ecosystems (pp. 527-534). Springer, Singapore.

### **Papers under review**

- Geo-Informatics in identification of groundwater recharge structures in Bundelkhand Region” Paper Under review in “Journal of the Geological Society of India”.
- Geospatial Technology in Hypsometric Analysis of Mohand Anticline, Uttarakhand, India. Asian Journal of Geoinformatics.

- InSAR technique detects post-seismic ground deformations of Kathmandu valley, Natural Hazards.
- Pseudo Colour Transformation Technique for Deforestation and Forest Degradation Studies, Journal of the Indian Society of Remote Sensing.

### **Seminar, Workshops and Paper Presentation**

- Presented Poster on “Study of Kangra Re-Entrant and Associated Morphotectonic Features Based on Remote Sensing and GIS. AGU Fall Meeting 2018, 10-14 December 2018, Walter E. Washington Convention Center, 801 Mt. Vernon Place, NW, Washington, DC.
- Understanding The Impact Of Regional Climate Condition And Local Features On Glacial Behavior Around Satopanth And Bhagirath Glacier In Alaknanda Valley, Uttarakhand, India. Proceedings of International Conference on Climate Change Mitigation and Technologies for Adaptation (IC3MTA-2016) 20<sup>th</sup> & 21<sup>st</sup> June, 2016 Synod College, Shillong, Meghalaya, India.
- Hypsometric Analysis of Mohand Anticline, Uttarakhand, India Using Geospatial Technologies. National Geo-Research Scholars Meet-2016, 1-4 June, 2016 at Wadia Institute of Himalayan Geology, Dehradun.
- Presented a paper in an International Conference (The 2016 Himalayan-Karakorum-Tibet workshop) entitled “Delineation of major seismotectonic boundaries in Sub-Himalayan region using geospatial technologies.
- Presented a paper entitled “Flood Induced Changes in Kedarnath Valley, Uttarakhand, India” in the National Seminar on Geology, Tectonics, Geo-Hazards and Natural Resources of North East India during 3<sup>rd</sup>-4<sup>th</sup> November, 2014, Organized by Dept. of Geology, Pachhunga University College, Aizawl, Mizoram.
- Presented paper entitled “Morphometric and Morphodynamic analysis of Lohit River, Assam, India.”. in the National Seminar on Geology, Tectonics, Geo-Hazards and Natural Resources of North East India during 3<sup>rd</sup>-4<sup>th</sup> November, 2014, Organized by Dept. of Geology, Pachhunga University College, Aizawl, Mizoram.
- Participated National conference on "Earth Sciences in India: Challenges and Emerging Trends" has been organized by Department of Earth Sciences during 07-09th Nov. 2013.

- Participated National workshop on Hydro power in D.S. College Aligarh 2011.
- Participated National Geo-youth seminar 2k10 and presented a paper on Remote Sensing at Mohanlal sukhadia University Udaipur in 2010.
- Participated National Geo-youth Seminar 2k9 and presented a paper on Rain Water Harvesting at Mohanlal Sukhadiya University Udaipur in 2009.

### **Languages Known**

1. English
2. Hindi
3. Punjabi
4. Urdu

### **Personal Information**

- Fathers Name : Shri Jai Prakash
- Nationality : Indian
- Sex : Male
- Marital Status : Married
- Date of Birth : 15 Jan 1983
- Language Known : Hindi, English, Punjabi and Urdu.

### **Functional Traits**

- Good Communication Skill.
- Leadership Skill.
- Quick learner.
- Positive Thinker.

### **Hobbies and Interests**

- News paper reading.
- Travelling.
- Reading books.
- Listening music.
- Cricket.
- Reading science and technology related articles.

## **References**

**Ph.D. Supervisor** : Dr. Arun Kumar Saraf  
Professor  
Department of Earth Sciences  
Indian Institute of Technology Roorkee  
Roorkee - 247667, India  
Tel: (01332) 285549 (Office)  
Mobile: +91-9412074372  
Email: [arun.k.saraf@gmail.com](mailto:arun.k.saraf@gmail.com)

**Ph.D. Co-Supervisor** : Dr. Joshodhir Das  
Associate Professor  
Department of Earthquake Engineering  
Indian Institute of Technology Roorkee  
Roorkee - 247667, India  
Tel: (01332) 285264 (Office)  
Email: [jsoeqiitr@gmail.com](mailto:jsoeqiitr@gmail.com)

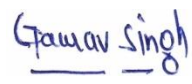
**Ph.D. Internal Expert** : Dr. Sarada Prasad Pradhan  
Assistant Professor  
Department of Earth Sciences  
Indian Institute of Technology Roorkee  
Roorkee - 247667, India  
Mobile: +917060845646  
Email: [sppradhanfes@iitr.ac.in](mailto:sppradhanfes@iitr.ac.in)

**P.G. Diploma Guide** : Dr. Ajanta Goswami  
Former Scientist 'SD'  
Indian Institute of Remote Sensing ISRO  
Dehradun, Uttarakhand-248001 India  
Mobile: +91-8954888815  
Email: [ajantagoswami@gmail.com](mailto:ajantagoswami@gmail.com)

## **DECLARATION**

I hereby declare that the details given above are true to the best of my knowledge and belief.

Place: Roorkee  
Date: 05-03-2019

  
**GAURAV SINGH**