



## **ANANT KUMAR**

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### **PROFESSIONAL SUMMARY**

A dynamic and versatile professional having 5+ years of experience in Remote Sensing and GIS domain. Carries a broad set of analytical and technical skills that would benefit any organization. Proven history of working with cross-functional teams to achieve continuous improvement and desired goals. Associated with DRDO lab during the past 5 years and actively worked in the areas viz. terrain modeling, climate change, mountain hazards monitoring, hydrological modeling, field surveys etc. Possess strong skills with various computer systems from spreadsheets and databases to GIS analysis, satellite remote sensing and photogrammetry applications. Excellent time management and work ethic. Seeking new opportunities and challenges for career growth.

### **EDUCATIONAL BACKGROUND**

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| ❖ <b>PUNJAB ENGINEERING COLLEGE, CHANDIGARH</b>      | July 2016-October 2020<br>(Thesis Submitted) |
| Ph.D. (Remote Sensing)                               |  |
| ❖ <b>BIRLA INSTITUTE OF TECHNOLOGY MESRA, RANCHI</b> | July 2012 to July 2014                       |
| M.TECH (Remote Sensing)                              |  |

### **SKILLS**

- ❖ **GEOSPATIAL**
  - Terrain modeling: photogrammetric processing of optical stereo-satellite and SAR interferometry data
  - Satellite based hazard monitoring (Landslide, Debris flows, Glacier lake outbursts), generation of susceptibility/hazard maps
  - Generation Land Use/Land Cover maps
  - Mapping of earth features using optical (Landsat, Cartosat-1, Sentinel-1, LISS etc.) and SAR datasets
  - Agricultural Crops Classification and Stubble burning monitoring using remote sensing
  - Climate change study in North-West Himalaya

#### ❖ **FIELD SURVEYS**

- Leica DGNSS (RTK/Static)
- Trimble hand held GPS survey for various GCPs collection
- Land Surface Temperature (LST) of various glacial features using Infra-red thermometer

#### ❖ **DOCUMENTATION**

- Research papers/Conferences
- Technical Reports/SOPs
- Presentations

#### ❖ **GIS/DATA ANALYSIS SOFTWARES**

- ArcGIS Desktop 10.1/2/3/4/5
- ERDAS Imagine
- ENVI
- Geomatica
- LPS
- QGIS
- MS Excel
- SPSS
- Python (Intermediate level)

### **WORK EXPERIENCE**

#### **SNOW AND AVALANCHE STUDY ESTABLISHMENT      June 2015-June 2020 DRDO, CHANDIGARH**

(SENIOR RESEARCH FELLOW)

“HIMPARI VARTAN”: Impact of climate change on glaciers of Karakoram Himalaya and their implications on Army deployment

**Principal Investigator : Dr. HS Negi**

#### **PUNJAB REMOTE SENSING CENTRE LUDHIANA**

**Feb 2015 to June 2015**

(JUNIOR RESEARCH FELLOW)

AGROSYSTEMS AND CROP MODELING DIVISION: Model implementation for crop residue burning (stubble burning) using multi-spectral satellite imagery, GPS survey of damaged crops

**Principal Investigator: Dr. Anil Sood**

### **TRAININGS/COURSES**

- ❖ One week course on "Application of the State-of-the-Art Techniques for Cryospheric Studies" under continuing education program of DRDO held at SNOW AND AVALANCHE STUDY ESTABLISHMENT, DEFENSE RESEARCH AND DEVELOPMENT ORGANIZATION, CHANDIGARH

- ❖ Course on Remote Sensing, GIS and GPS: Satellite based training for universities sponsored by NNRMS-INDIAN INSTITUTE OF REMOTE SENSING (ISRO)

## INTERNATIONAL PUBLICATIONS

- ❖ Susceptibility assessment of rainfall induced debris flow hazard zones in Ladakh-Nubra region, Indian Himalaya (2019) (**Journal of Earth System Science, Springer**)  
doi: 10.1007/s12040-019-1277-4
- ❖ Accuracy Validation and Bias Assessment of Various Multi-Sensor Open Source DEMs in Part of the Karakoram Region (2020) (**Remote Sensing Letters, Taylor and Francis**)  
doi: 10.1080/2150704X.2020.1792001
- ❖ Quantifying Mass Balance of East-Karakoram glaciers using geodetic technique (2018) (**Polar Science, Elsevier**)  
doi: 10.1016/j.polar.2018.11.005
- ❖ Estimation of recent changes in thickness and mass balance of the Patsio glacier in the Great Himalayan region using geodetic technique and ancillary data (2018) (**Geocarto International, Taylor & Francis**)  
doi: 10.1080/10106049.2018.1506506

## REFERENCES

- ❖ Dr. H.S. Negi  
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