



Pramod kumar M

Water Resources Engineer and GIS professional

Professional Summary

A professional Senior research scholar with 5 years of experience in Remote Sensing and GIS application to Water Resources, Agriculture, hydrology, flood modeling, glacier, and snow extraction. Proficiency to understand water scarcity problem and able to reduce its impact by formulating, developing, and implementing new methodologies. Experience in collecting field data using various survey and Scientific instruments. Hands-on experience in various GIS software's and WEB GIS. Hydrological and Statistical model techniques using SWAT, SWMM, HEC-RAS, and HEC-HMS. Basic in PIX4D (Drone software) and Machine learning techniques using Python. I am actively Looking for a challenging and interesting opportunity world-wide.

WORK EXPERIENCE

Research Scholar (Sep 2015-Sep 2020)

National Remote Sensing Centre Indian Space Research Organization

- Fortnightly generation of snow cover information in the Indian Himalayan region using Resource sat-2 AWIFS data it includes data extraction, change detection, spatial analysis, thematic product preparation in the grid resolution and hosting in the ISRO-BHUVAN Web portal
- Handling long term database, working in model automation for extracting land use land cover information and preparation of Indices using high-resolution data sets
- Preparation of Spatio-temporal assessments and their relation to climate change using various statistical methods such as linear regression, ANOVA, and Man Kendall-Sen's slope etc.
- Monthly monitoring, mapping of water bodies, glacier lakes using Sentinel-2, LISS-IV data and preparation of its attribute information Contribution of other water resources projects to update skills in Geospatial field
- Travelled to Antarctica under Indian Scientific expedition program in 2016-2017 worked at Bharathi Research Station. Collected snowpack properties by snow fork instrument like Density, Wetness, Dielectric constant
- Collected ground control points using GPS, DGPS, and ground geophysical observation by GPR (Ground Penetrating Radar).
- Participation in Workshops, Conferences in various organizations to update my research skills.



pramod.marripedda@mail.com



+91 8008699764

+91 6305868008



Bowenpally, Hyderabad,
Telangana, India



www.linkedin.com/in/pramodkumar-marripeddaa6a27079/

PROFESSIONAL SKILLS

Image processing

Model Automation

Hydrological modeling

Microwave remote sensing

SOFTWARE

PIX4D

ArcGIS

ERDAS

Q-GIS

REVIT

Programming Languages

Python

R

Languages

English

Hindi

Telugu

- Trained professionals in computing and data management strategies to help central and state government organizations for improving digital infrastructures.
- Delivered internal and external presentations to government and public groups to facilitate transparent and effective use of research.

Other Activities

- As a member of the Antarctica expedition actively participated in all activities at Indian research stations (Maitri and Bharati) for maintenance of the Antarctic treaty, helping other researchers in logistics, and roster duties.
- Collaboration work carried out on Analysis of crop loss due to floods using the drone technology and generated indices for the same using PIX4D Mapper software.
- Monitoring rotational cropping patterns for different basins using space-based and ground-based observations.
- Supervised/unsupervised land use land Cover Classification using Multi-spectral data sets
- Urban flood modeling has been carried for a part of Hyderabad city using SWMM (Storm Water Management Model)
- Hydrologic simulation analysis by Soil Water Assessment Tool (SWAT), Flood forecast modeling by using HEC-HMS, and Hydraulic River modeling by HEC-RAS
- Machine learning technique used in bulk downloading and pre-processing of multi-temporal and spatial data sets (AWiFS, Landsat, Sentinel 1/2, MODIS) from organization websites (NSIDC, USGS, NASA, etc.) using python programming

Asst.Prof in the Dept of Civil Engineering

Kshatriya College of Engineering, Armoor, Nizamabad, Telangana (2014-15)

- Teaching Under graduate subjects Water Resources, Surveying, Environmental Engineering, and Fluid mechanics
- Conducting Hands-on training for ArcGIS and Surveying practice.

Lecturer in the Dept of Civil Engineering

Malla Reddy College of Engineering and Science, Hyderabad (2011-12)

- Teaching Under graduate subjects Surveying, Environmental Engineering, and Engineering Drawing
- Conducting Hands-on training for Surveying practice.

Area of research Interest

Agriculture drone mapping and Hydrological, Flood modeling, ground water identification, Water treatment and design, rain water harvesting,

Honor/Award

Award received from chairmen Ministry of Earth Sciences for the participation of XXXVI Indian Scientific expedition to Antarctica in the 2016-2017

Trainings

- Participated in XXXVI ISEA (Indian Scientific Expedition to Antarctica) organized by NCPOR (National Center for Polar and Ocean Research) Goa from 28th Nov 2016 to 10th Feb 2017 worked at Bharati research base, Larsemann hills, East Antarctica
- Participated in Pre-Antarctic Snow/Ice Acclimatization of 36th Indian Scientific Expedition to Antarctica conducted at Mountaineering and Skiing Institute at Auli, Uttarakhand from 26th Aug 2016 to 08 Sep 2016.
- Attended training on Glacier, Climate Change and Remote Sensing at Divecha Centre for Climate Change, Indian Institute of Science, Bangalore from 18 July 2016 to 29 July 2016.

Publications / Conferences

- R. V. Bothale, M. Fathima and M. Pramod. Kumar, "The Potential for Estimating Snow Density Using SCATSAT-1 Scatterometer," in IEEE Geoscience and Remote Sensing Letters, DOI: 10.1109/LGRS.2020.3004586.
- Published paper on "Snow Cover Fractional Variability in three-minute grid resolution in Indian Himalayan region using multi-temporal satellite data "at National Polar Conference -2019 in NCPOR (National Centre for Polar and Ocean Research), Goa.
- Published paper on "Estimation of Snow Cover Fraction for Indian Himalayan region using multi-temporal satellite data from 2012-2017 at National Polar Conference -2017 in NCPOR (National Centre for Polar and Ocean Research), Goa.
- Paper Published GIS-based Urban Watershed Modeling Using Remotely Sensed Data at IC-ISE 2015 Conference Osmania University, Hyderabad • Prepared work reports on Water bodies and Glacial lake monitoring for the Indian Himalayan Region
- prepared work reports on Generation of Snow Cover Fraction fortnightly for Indian Himalayan Region

Education

M.E (Water Resources Engineering)

University College of Engineering, Osmania University, Hyderabad, | 2012 – 2014

Majored in Hydrology, Irrigation, Environmental Engineering, Remote Sensing and GIS application to Civil Engineering Dissertation: GIS-based Urban Watershed Modeling Using Remotely Sensed Data

B-Tech (Civil Engineering)

Sree Datta College of Engineering and Science, Hyderabad 2008-11

(First Class with Distinction)

Diploma (Civil Engineering)

Sree Sangameshwara Govt.Polytechnic, Zaheerabad, |2005 - 08