

## ARNAB SAHA



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Looking to obtain a position as a Research Scientist/Engineer with reputed organization that will use a strong background in remote sensing, GIS mapping, Hydrology and technical skills to interpret information needed by various organizations that will provide challenging projects and opportunities for further career development. Willing to work as a key player in challenging and creative environment. Seeking a good profession to extract my knowledge in different fields.

## **EXPERIENCE**

# INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR JUNIOR RESEARCH FELLOW (JRF) AGRICULTURAL AND FOOD ENGINEERING DEPT.

April, 2019 - Present

Project on "Effect of Climate Change & Land Use/Land Cover Changes on Spatial and Temporal Water Availability in Subarnarekha Basin", (Sub Area: Hydrology, Remote Sensing & GIS), sponsored by Ministry of Water Resources, Govt. of India.

### KEY AREA OF RESPONSIBILITIES

- 1) Image rectification, classification and satellite image processing of remote sensing imagery.
  - Land use and Land cover mapping and accuracy assessment.
  - River basin delineation and modeling (SWAT).
     To model spatial and temporal future water availability using downscaled climate and land use change scenarios.
    - 5) Climate change studies using GCM Model.6) Producing the scientific technical reports and publishing research paper in reputed journals.

# NATIONAL INSTITUTE OF HYDROLOGY, ROORKEE JUNIOR RESEARCH FELLOW (JRF) RESEARCH MANAGEMENT & OUTREACH DIVISION

April, 2018 - April, 2019

Project on "Neeranchal National Watershed Project" (Sub Area: Hydrology & Remote Sensing),
Sponsored by World Bank, UNDP& Govt. of India.

#### **KEY AREA OF RESPONSIBILITIES**

- 1) Satellite image processing, LULC mapping and change detection.
- 2) Develop and pilot a DSS-H to implement the Watershed Component of PMKSY at landscape, expanded sub-watershed and micro-watershed levels in selected project areas in 9 States.
- 3) Site suitability analysis of water harvesting structures
- 4) Develop tools for Soil Moisture Index, NDVI, NDWI, Water Balance, Groundwater recharge, Peak discharge, Water quality, Rainfall-Runoff modeling etc.
- 5) River basin delineation and modeling.
- 6) Proficient with general hydrology and hydraulics tools and models, like SWAT, VIC, HEC-HMS etc.
- 7) Conduct capacity building programs for the stakeholders.
- 8) An integrated planning scale from MWS to catchment, based on hydrological considerations.
- 9) Generation of DPR (Detailed Project Report).

## UTTARAKHAND TECHNICAL UNIVERSITY, DEHRADUN JUNIOR RESEARCH FELLOW (JRF) CIVIL ENGINEERING DEPARTMENT

June, 2017 - March, 2018

Project on "Development of Methodology to Compensate Effect of Topography, Contamination and Adjacency Factors" (Sub Area: Hyperspectral Remote

## CORBETT EQUIPMENT PRIVATE LIMITED, NEW DELHI SITE ENGINEER – GPR SPECIALIST

July, 2013 - July, 2014

## **KEY AREA OF RESPONSIBILITIES**

1) Detection of underground utilities, non-conductive pipes and ducts, fibre optics cables using GPR

Sensing), sponsored by DST, Govt. of India.

#### **KEY AREA OF RESPONSIBILITIES**

Data acquisition, Data Capturing, digitization, Image rectification, classification and satellite image processing of remote sensing imagery.
 GIS map production and geo database design tasks

with special focus on spatial analysis and mapping.
3) Land cover change detection analyses, and producing the scientific technical reports.

4) Advanced computational and programming analysis of geographic data.

5) Compilation of all GIS and Remote sensing data.

6) Snow cover mapping and snow grain size mapping using hyperspectral remote sensing data.

7) Development of new methodology for snow contamination and adjacency effects.

8) Handling of GPS (Global Positioning System) & ASD Spectro-radiometer.

9) Advanced computational and programming analysis of geographic data.

2) GIS map production and geo database design tasks, LULC change monitoring, digitization, GPS handling etc.

## **EDUCATION**

# MASTER OF TECHNOLOGY (M.TECH) GEO-INFORMATICS AND REMOTE SENSING AIGIRS, AMITY UNIVERSITY, NOIDA

August, 2015 - May, 2017

Completed Master of Technology in Geo-informatics and Remote Sensing in Amity Institute of Geoinformatics and Remote Sensing with 7.36 CGPA

# BACHELOR OF TECHNOLOGY (B.TECH) CIVIL ENGINEERING BIJU PATNAIK UNIVERSITY OF TECHNOLOGY, ODISHA

September, 2009 - August, 2013

Completed Bachelor of Technology in Civil Engineering in Maharaja Institute of Technology, BPUT with 6.49 CGPA POST GRADUATION DIPLOMA (PG DIPLOMA)
REMOTE SENSING AND GIS (WATER RESOURCES)
INDIAN INSTITUTE OF REMOTE SENSING, ISRO

August, 2014-June, 2015

Completed Post Graduation Diploma in Remote Sensing and GIS with specialization in Water Resources with 7.46 CGPA

HSC (12<sup>TH</sup>)
SCIENCE STREAM
WBCHSE, KOLKATA, WEST BENGAL

May, 2007-April, 2009

Completed Higher Secondary examination with 71%. The subjects are Mathematics, Physics, Biological Sciences, Bengali and Environmental Studies.

## **INTERNSHIP**

## INDIAN INSTITUTE OF REMOTE SENSING, DEHRADUN WATER RESOURCES DIVISION

January, 2017- May, 2017

Completed M.Tech final dissertation project on the thesis entitled "Snow Grain Size Mapping using Hyperspectral Remote Sensing Data".

## REMOTE SENSING APPLICATION CENTRE, LUCKNOW GROUND WATER RESOURCES DIVISION

May, 2016 - July, 2016

Completed M.Tech minor internship project thesis entitled "Ground Water Potential Zone Identification of Karwi Block Area using Remote Sensing and GIS".

## DAMODAR VALLEY CORPORATION, MAITHON WATER RESOURCES DIVISION

*August, 2011 – September, 2011* 

Completed B.Tech final year minor dissertation project on the thesis entitled "Flexible Pavement Design".

## TRAINING AND CERTIFICATIONS

- Successfully completed 21st IIRS Outreach Programme on "Remote Sensing and GIS applications in Water Resources Management", 22 May, 2017
- Successfully completed 19th IIRS Outreach Programme on "Remote Sensing and GIS applications in Carbon Forestry", 16 February, 2017
- ♣ Best Student Paper Award 2017- 17th ESRI India User Conference 2017
- Successfully completed 18th IIRS Outreach Programme on "Basics of Remote Sensing, GIS & GNSS", 22 August, 2016
- ♣ Best Photographer award in Amity Youth Festival conducted by Amity University Noida during 2016.
- ♣ A good score in "AMCAT" exam -2013
- Successfully completed in the training programme on "AutoCAD 2D Drafting and Solid Modeling" conducted byOdisha Computer Application Centre, Bhubaneswar, India during March 02- April 12, 2013
- ♣ Successfully completed in the training programme on "Staad.Pro" conducted by Odisha Computer ApplicationCentre, Bhubaneswar, India during August 28- October 03, 2012
- Successfully completed in the online training programme on "Business Foundations" conducted by Smartly by Pedago, Washington, District of Columbia, USA, January, 2019

### **MEMBERSHIP OF PROFESSIONAL BODIES**

- ♣ International Association of Hydrological Sciences (IAHS) (Life Member)
- International Society for Photogrammetry and Remote Sensing (ISPRS) (Individual Member)
- Indian Society of Remote Sensing (ISRS) (Life Member)

### **LINKS**

- ORC ID: https://orcid.org/0000-0002-3068-677
- ♣ Researcher ID: S-3715-2018
- Website: https://arnabdd.wixsite.com/arnabsaha

## **LANGUAGES & SKILLS**

# ENGLISH BENGALI & HINDI GERMAN GIS MAPPING REMOTE HYDROLOGICAL IMAGE SENSING MODELLING PROCESSING

#### SOFTWARE SKILLS



## **HOBBIES**











PHOTOGRAPHY

MOVIES

PLAYING FOOTBALL

## READING BOOKS TRAVELLING

## **REFERENCES**

## DR. PRAVEEN KUMAR THAKUR SCIENTIST/ENGINEER 'SF'

Indian Institute of Remote Sensing, Dehradun, India

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## DR. SANTOSH MURLIDHAR PINGALE SCIENTIST/ENGINEER 'SD'

National Institute of Hydrology, Roorkee, India

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