# CURRICULUM VITAE

# Chandan Bhattacharya

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### **OBJECTIVE**

MAKING THE TOMORROW BETTER THAN TODAY BY ANALYSING TODAY'S WORK & ACCORDINGLY PLANNING FOR TOMORROW IS MY VISION TO MY LIFE.

# **REMOTE SENSING & GIS PROFICIENCY**

Successfully Completed M.Sc. on Remote Sensing, Geographic Information System and Global positioning System from <u>NORTH ORISSA UNIVERSITY.</u>

Successfully Completed the basic training course on Remote Sensing, Geographic Information System and Global positioning System from INDIAN INSTITUTE OF REMOTE SENSING conducted by the Jadavpur University.

Successfully Completed Post Graduate Diploma Course in Applied Remote Sensing & GIS(Geoinformatics) From Jadavpur University, <u>COMPUTER AIDED DESIGN</u> CENTRE, Dept. of Computer Science & Engineering.

# **WORK EXPERIENCE**

Total 6 Years 9 Months Working Experience in Remote Sensing & GIS.

6<sup>th</sup> Months Experience in Scanpoint Geomatics Ltd(SGL),AHMEDABAD,INDIA. From March 17, 2012 to September 20,2012. Designation- Gis Technician.

- 1 Year & 3 Months Experience in Digital Cartography and Services (DCS) Pvt. Ltd. BHUBANESWAR, INDIA. From September 28,2012 to November 29, 2013. Designation- Gis Executive.
- 5 Years Experience in Cyber-SWIFT Infotech Pvt. Ltd, KOLKATA, INDIA. From December 2, 2013 to continue. Designation- Gis Officer.

# **PROJECTS:-**

- BAMBOO STOCK MAPPING: Bamboo Stock Mapping of Karbi angling Forest Department, Assam under NATIONAL BAMBOO MISSION.
- 1. Georeferencing Satellite map of Cartosat 1,Liss 4 and Toposheet
- 2. Mosaicking the satellite image slide wise and Resolution merge.
- 3. Land use classification map Preparation of karbi-anglong district.
- 4. Preparation of forest type map density wise by Ndvi & Unsupervised classification.
- a. Very dense b.Dense. c. Moderate. d. Scanty. e. Absent.
- 5. Preparation of Bamboo stock map density wise by supervised classification.
- a. Pure Bamboo.b. Very dense. c. Dense. d. Moderately dense. e. Scattered.
- f. Sparse. g. No bamboo.
- 6. Delineation of Bamboo forest.
- 7. Preparation of Bamboo stock map (density wise), felling series wise.
- 8. Laying out of Annual operation coupé under each felling series with almost equal annual yield.
- 9. Exclusion of Areas above 1000m MSL, Steep slopes(>30°) and buffer of 200m both side of the major Drainage.
- 10. Estimation of harvest able growing stock of bamboo.
- 11. Preparation of map depicting plantation raised under National Bamboo Mission.
- 12. Preparation of Slope map, Aspect map, Drainage map from DEM image.
- URBAN PLANING: Design, Development and Implementation of Web Based Gis Application Along With GIS Database at SURAT MUNICIPAL CORPORATION.
- 1. The project is based on preparing the database of Surat Municipal Corporation.
- 2. Georeference the Quick Bird satellite imagery and subset the surat area,
- 3. Mosaicking the satellite map of each strip then join the strip,
- 4. Orthorectification of the maps,
- 5. Checking drawing of DWG files on Auto Cad software and export in shape file,
- 6. Spatial adjustment of Administrative and Political Boundary, Road and Transportation
  - Town Planning, Hydraulic, Sewerage, Storm Water etc layers.
- 7. Topology creation for vector layer.
- 8. Image interpretation of label I, II, III, IV, V for land use classification,
- 9. Quality Checking of database for each vector layer.
- 10. Prepare Geodatabase & Load each Layer on that.
- URBAN PLANING: Web Enabled Integrated Infrastructure Information System (Kolkata Environmental Improvement Investment Program in KOLKATA MUNICIPAL CORPORATION)
- Geo referencing Process are done on Cadastral Sheet, Revenue Maps & Property
  Tax Boundary then it superimposed from on Ward Map & original plot area are
  derived from Field Survey data.

- 2. Road Centre line data needs to be checked first on Each Ward.
  - a. Alignment with Road Centre,
  - b. Delete of wrong digitized roads
  - c. New digitization of roads
  - d. Width entry from Aerial Photo/Google/Satelite (World view) Imagery.
- 3. Edge creation based on road width & Fillet of edge.
- 4. Name and code entry of Road then Road Type entry.
- 5. Footpath digitization and width entry
- 6. Bridge, Flyover, Traffic Island, Culvert, Bus Terminal which are under "Transportation Road" needs to be captured if exists.
- 7. Railway Category needs to be digitized & Metro, Tram lines if any.
- 8. Other features extraction as per "Data Model"
- 9. Landmark Extraction including Bus Stop.
- 10. Open Area Digitization & Slum Boundary Digitization.
- 11. After the completion of the entire Ward "Building Footprints" needs to be captured.
- 12. Present scope is mainly for Water Pipeline, Sewerage & Drainage and Property Tax data developed then need to be superimposed by ward wise, Borough wise, From existing Drawing on paper & digital format, for Water, Sewerage & Drainage supply/distribution network, as built drawing of intake structure, water treatment plant, water distribution station, pumping station and other assets part of system should be digitized with desired scale of 1:1000 and integrate on GIS Platform. Create the GDB using GIS.
- DISASTER MANAGEMENT: Vulnerability, Hazard & Risk Zone Mapping for Cyclone, Tsunami, Flood, Earthquake in Kendrapara District of ODISHA DISASTER MANAGEMENT AUTHORITY.
  - 1. Satellite Image and Toposheet map georeferencing.
  - 2. Mosaic Slide wide image,
  - 3. Prepare Thematic Layer & Topographical Layer from Satellite Images & Topo sheet maps each village wise.
  - 4. Prepare Tabular Data from previous events then linking with vector dataset.
  - 5. Prepare Geodatabase for Hazard, Risk & Vulnerable (HRV).
  - 6. Upload each vector layer in the GDB.
  - 7. Derived Maps, analytical Data for Physiographic, Climate & Man made.
  - 8. Generation of vulnerability zoning maps for Cyclone, Tsunami, Flood Earthquake and Health Hazard.

- WILD LIFE: Wild life Conservation & Forest Fire Mapping in Koraput forest circle of KORAPUT WILD LIFE DIVISION.
- 1. Georeferencing of Satellite map.
- 2. Prepare thematic layer from satellite images for Beat, Section & Range Wise Boundary & also with River, Road, Settlement etc.
- 3. Attribute put for each layer.
- 4. Prepare the tabular data for animals (Tiger, Elephant, Bear etc) and Forest Fire data,
  - then linking the data with thematic data.
- 5. Prepare Normalized Difference Vegetation Index (NDVI) from LISS-iii Satellite Image.
- 6. Generation of maps for wild life Distribution.
- R-APDRP: Energy Audit ,Electric Network Utility Mapping & Database Prepare For ASSAM POWER DISTRIBUTION CORPORATION LTD.
- A. Electrical Map Preparation:-
- 1. Digitizing the surveyed HT Line and LT Line feeder wise by selecting the attribute From HT and LT Line layer on Map info platform.
- 2. Then preparing the DTR, HT LINE, LT LINE, HT POLE and LT POLE layer some query are run on the Data for missing line & pole, duplicity checking and Connectivity checking with DTR & POLE layer, This is called initial checking of electric model.
- 3. After initial checking offset are done on the duplicate HT pole, HT line, LT pole & LT line layer by Creating buffer 10 cm distance on the pole layer. That type of pole are called HTHT and HTLT. Then replace the duplicate pole and line on that area.
- 4. Then prepare the HT and LT layout for field checking on Arc Gis platform.
- 5. After checking the spatial existence codification work are done as per APDCL & TCS codification logic. In that step Facility id and painting code attribute add on the HT pole, HT line & LT pole, LT line layer.
- 6. Then upload the each layer FGDB Electric model layers on Arc Catalog platform.
- 7. Substation survey data are update on the database (Lightning Arrestor, Isolator, etc)
- 8. Feeder and DTR wise map are prepare for asset painting work.
- B. Base map preparation:-
- 1. Layer stacking of satellite imagery and Geo-referencing the satellite imagery.
- 2. Digitizing the Rail, Road, Water body, Miscellaneous features, from satellite imagery and Verify the landmark (Transportation facilities, Building, Religious places etc) from survey data on the AOI area.
- 3. Topological error checking of the each layer & adding the attribute of the layer.
- 4. Then upload the all Land base layer on the FGDB Geodatabase.

- MINING: DGPS Survey and Mining Map Preparation for HINDUSTHAN COPPER LIMITED at Ghatsila.
  - 1. Mining Pillar Survey are done from DGPS Model (Trimble GEO XT).
  - 2. Download it from DGPS by GPS Pathfinder Software.
  - 3. Correction points & Generate DGPS log sheet on .csv format.
  - 4. Mining lease boundary is preparing from join each Mining Pillar.
  - 5. Georeferencing and Resolution Merge are done from Cartosat 2 and Liss 4 imagery.
  - 6. Digitizing the village sheet and parcel id put.
  - 7. Vector rectification is done on the village layer with satellite image.
  - 8. Superimposing the Mining lease pillar, Boundary& Village plot map on the image and Toposheet.
  - 9. Project Report preparation with layout.
- ENCROACHMENT MAPPING:- Demarcation of Defence land, Topographical Survey of Civil & Bazaar Areas in Secunderabad Cantonment Using Electronic Total Station, DGPS and Developing The Interface on GIS For MINISTRY OF DEFENCE (MOD).
- 1. Geo-referencing the GLR (General Land Record )map for each Bazaar area with help of GCP point & Also Geo-referencing the Satellite imagery with help of GCP point on Erdas Software Platform.
- 2. Digitizing the GLR map & id put on ArcGis Software Platform.
- 3. GLR Area Match as per mentioned area from Bhumi Raksha Book of Ministry of Defence (MOD).
- 4. Present Building layer which Derived From Total Station survey & After survey Preparation of Existing Building drawings Superimpose with Old GLR data. Then Spatial adjustment done though it will required for old GLR Building for best match.
- 5. Encroachment area Derived after divided two Categories of Building present & previous.
- 6. Land category map preparation by various types of land & also showing the Encroachment over those types of lands(B1-Central Government,B2-State Government & Private,B3-Leases and Old Grants,B4-Vacant Defence Land,C-Roads & lanes).
- 7. Database preparation by Old Land Details & new House hold survey data on Microsoft Excel then upload it on Oracle 11g software platform(Database Table each building information shows by a specific row).
- 8. Tippon Preparation For each building with length on Autocad Software Platform.
- 9. Final Map preparation A. Previous Building & Encroachment,B. Project Area over satellite image,C. Area Comparison map,D. Present Building map,E. Present Building, Previous Building & Encroachment,F. Land category map.
- 10. Finally Report Book Preparation which hold total description of previous & Present scenario of Project area with area & Each Building Tippon map.

# **SOFTWARE /TECHNICAL PROFILE**

IMAGE PROCESSING: ERDAS (14), PCI GEOMETRICA (9.1).

GIS PACKAGE: ARCGIS(10.3.1), MAP INFO PROFESSIONAL(10),

ARC INFO WORKSTATION (9.2), AUTOCAD(18),

MICROSTATION(V8i), TRIMBLE BUSINESS CENTRE(3.2).

QGIS (2.2), IGIS(1.1).

DATA BASE : MS ACCESS 10, ORACLE(11G), SQL, PL/SQL

OTHER : MS OFFICE(10), GOOGLE EARTH. GPS PATHFINDER.

### **ACADEMIC APTITUDE**

i) M.Sc in Remote Sensing & Gis completed from North Orissa University In 2013 aggregate with 63%marks grade,1st class.

- ii) Post Graduate Diploma Course completed in applied Remote Sensing & GIS(Geoinformatics) From Jadavpur University, Computer Aided Design Centre, Dept. of Computer Science & Engineering in 2011 with 64.07%, marks grade 1st class.
- iii) B.Sc Geography Honours completed From Netaji Subhas Open University in 2009 with 67.05%,marks grade 1<sup>st</sup> class.
- iv) Completed Higher Secondary Education under the council of WBCHSE in 2000 with 55.3% marks grade, 2<sup>nd</sup> class.
- v) Completed Secondary Education under the board of WBBSE in 1998 with 63% marks grade,1st class.

# **COMPUTER PROFICIENCY**

- Successfully Completed 1 year <u>DIPLOMA IN INFORMATION TECHNOLOGY</u> FROM <u>BURDWAN YOUTH COMPUTER CENTER</u>, in 2009.
- Successfully Completed 6 months <u>DIPLOMA IN ORACLE 11G FROM NIIT</u> (JADAVPUR CENTER), in 2017.
- Successfully Completed 6 Months Certified in Computer P.C Maintains (Hardware) under Balgona Icon Computer Academy govt. regd.

## **ADDITIONAL INFORMATION**

- ❖ Client Conversation with BUSINESS DEVELOPMENT TEAM.
- Client Visit for Project Related Work.

### OTHER INFORMATION

Certificate course on <u>TYPEWRITING</u> from Bharat Commercial College.

#### SEMINER ATTENDED

Seminar on 'JADAVPUR UNIVERSITY' Impacts of professional in 21st century organized by COMPUTER AIDED DESIGN CENTER.

#### PERSONAL SKILL

- Excellent Communication Skill English & Bengali (Speak &Write), Hindi (Speak only).
- Can undertake any toughest task at once.

## **OTHER INTEREST**

❖ Adventure, Special Interest in Internet Surfing to collect the RS & GIS data related matter.

### **STRENGTHS AND SKILLS**

Research: Gained knowledge about Digital Image Processing, Spatial Analysis, Spatial Modelling, Satellite Image Interpretation, Map Making, different survey techniques and 3d GIS model.

Teamwork: Good teamwork ability.

### **RESEARCH INTERESTS**

- Remote sensing application on urban utility planning.
- Extraction of Mangrove area by remote sensing process.
- Exploring capabilities of Remote sensing and GIS techniques for Understanding geo-environmental Process.
- Remote sensing use in Hyper Spectral image processing.

# PERSONAL PROFILE

Name(In Block Letters)	: CHANDAN BHATTACHARYA	
Father's Name	: Alok Kumar Bhattacharya	
Address	: Vill - Indas, P.S - Indas, Pin-722205,	Post - Indas, Dist - Bankura, State -West Bengal.
Date of Birth (Christian era)	:1 <sup>st</sup> , Dec, 1982.	
Sex	: Male.	
Nationality	: Indian.	
Religion	: Hindu.	
Category	: General.	
Marital Status	: Married.	
DECLARATION		
I consider myself familiar with RS & GIS Aspects. I am also confident of my ability to work in a team. I hereby declare that the information furnished above is true to the best of my knowledge.		
Place :	Chando	an Bhattacharya
Date :		