Office Reg. No.: 9992 194019 PAN NO.: AGSPL 3094 P

Service T.No. : AGSPL 3094 PSD 001 TAN NO. : LKNC 06091 B

ADVANCED GEO-TECH SOLUTIONS

ISO 9001; 2008 STANDARDS



1 / 643, Sector - H, Jankipuram LUCKNOW - 226021, (U.P.) INDIA

> agslko@gmail.com www//agslko.org

Advanced Geo-Tech Solutions (AGS) is an organization specializing in the conjunctive use of Aerial and Satellite Remote Sensing (RS), Geographic Information System (GIS), and Global Positioning System (GPS) technologies, in association with conventional techniques, in optimum exploration, judicious exploitation and maximum utilization of the various natural resources. AGS also specializes in natural and man made Disaster Management and mitigation, Risk assessment, development of land information systems, environmental and climatic studies, Management Information System (MIS), and urban planning, etc.

The foundation of AGS is laid by a group of highly qualified professionals who possess extensive experience and a proven capability of Remote Sensing, GIS, GPS, Ground Surveys and digital mapping, Cadastre map digitization, spatial data creation, Utility mapping, transport planning, electrical applications, computer aided cartography, consulting, RDBMS, application development, project design & management and a host of other specified areas. AGS prides itself on being a complete solution provider.

AGS also works as an outsourcing partner, more so as a cost-saving partner, rather than a mere outsourcing outfit. Capacity building in terms of training the decision makers, implementing agencies and the actual grass root level workers is a regular activity of AGS. We know truthfulness, producing a high quality data and timely project deliveries are the key to success in the long run.

EXPERTISE PRESENTLY AVAILABLE AT AGS

Backed by highly qualified and experienced personnel, Advanced Geo-Tech

Solutions is an expertise firm with a proven record to provide solutions for the following areas of specializations:

Advanced GIS Techniques

| Contour Digitization | DEM generation, Slope analysis |
|---|--|
| 3-D Analysis, Slope / Aspect maps, View shed maps, | Watershed prioritization & planning |
| Drainage network mapping and Morphometric analysis | Cadastre map geo-referencing & digitization |
| Site suitability analysis | Transport network analysis |
| Spatial Analysis | Overlay Analysis , Union, Intersect |
| Proximity Analysis, Buffer, Distance between two features,etc | Network Analysis, Shortest Route analysis, TSP,etc |
| Raster Analysis, Corridor analysis, Hydrological analysis,etc | Spatial modeling, Model generation |
| POI Collection / Mapping | Linear mapping |

Remote SensingTechniques

| Satellite image rectification | Image Enhancement & atmospheric correction |
|---|---|
| Watershed / subset delineation | Mosaic preparation |
| Visual & Digital Interpretation of satellite data | Categorization & classification of satellite data |
| Thematic mapping using satellite data | Feature extraction |

GPS Survey

| | Point data mapping and transformation on the satellite data |
|----------------------------------|---|
| Specialized / Customized Surveys | DGPS surveys, Total station survey |

Detailed Project Report (DPR) writing / finalization for Watershed Management

| Estimation of structures | Designing of structures |
|--------------------------|----------------------------------|
| Planning of structures | DPR preparation and finalization |

Training and Capacity Building In the following domains

| Watershed Management | Livelihood |
|---|--|
| PRA exercise | Environmental |
| Short term and Long term trainings in Remote Sensing and GIS techniques | R.S. and GIS applications in natural resources and natural disaster studies. |

Advanced Geo-Tech Solutions Highlights

The Company is continuously striving to improve the quality services and the needs of various industries to their utmost satisfaction. The services of the firm includes Photogrammetry, 3D compilation, GIS analysis, GPS survey, Design Development, Drafting services with reverse engineering concepts for producing computerized drawings using CAD softwares such as Mechanical equipment drawings like Heat Exchangers, Process piping drawings, Structural detailing drawings etc.,3D Modeling and Digital conversion.

Digital Photogrammetric Services

AGS has a large pool of experienced scientists in the domain of Photogrammetric analysis, who have clocked heavy man-hours. We produce accurate deliverables by completely focusing on customer's needs.

The softcopy Photogrammetric production facility at AGS is equipped with high end stereo-work stations to ensure a high quality, cost effective and in-time services to our customers across the world in the following areas:

| Aerial Triangulation | Planmetric Mapping |
|------------------------|--------------------|
| Topographic Mapping | DEM data Editing |
| Ortho Photo Generation | 3D Modeling |

PROJECTS COMPLETED / SPHERES OF ACTIVITIES OF AGS

Applications of Remote Sensing, Image Processing, GIS, GPS techniques and various surveys

Geosciences

| Geological / Geomorphologic mapping | Mineral / hydrocarbon exploration |
|-------------------------------------|--|
| Ground water potential zone mapping | Hydel project / reservoir site selection |
| Monitoring underground coal fire | Volcanic eruptions |

| Landslide studies | Embankment studies |
|-----------------------|-------------------------------|
| DEM model generations | DTM models |
| Geology & Hydrology | Geomorphology and Hydrography |

Water Resources

| Fluvial studies | Near real – time flood monitoring |
|--|--|
| Flood risk zone mapping | Cyclone damage assessment |
| Snow cover mapping and Snowmelt Run-off forecast | Impact of climatic variations on snow, ice and water resources |
| Evaluation of canal / tank Irrigation system | Catchment and command area development |
| Surface water mapping, Hydro - geomorphology, | Reservoir sedimentation and Drainage congestion studies |

Agriculture

| Crop acreage / yield estimation | Crop condition assessment |
|---------------------------------|--------------------------------|
| Agricultural drought assessment | Pests and diseases infestation |
| Agriculture Land capability | Sericulture, horticulture |

Soils

| Monitoring and mapping soil types | Salt – affected soils |
|-------------------------------------|------------------------------------|
| Eroded land, Shifting cultivation, | Waterlogged induced salinity areas |
| Soil Erosion assessment and mapping | Ravine mapping and monitoring |
| Mapping of wastelands of India | Degraded area mapping |

Forestry & Ecosystem

| Forest cover mapping and monitoring | Biodiversity characterization studies |
|--|--|
| Forest timber volume estimation | Wild life habitat analysis |
| Shifting cultivation areas assessment | Grass land mapping |
| Environment assessment studies | Forest fire / fire damage mapping |
| Timber Estimation | Tree species, Number of trees |
| Mapping of Diseased or infested trees, | Wild Life Species distribution mapping |

Land use / Landcover and Urban surveys

| Landuse / cover mapping | Change analysis studies |
|--|--|
| Transport network analysis | Urban sprawl studies |
| Corridor survey | Rural / urban roads inventory / surveys |
| Master plan development of cities | Site suitability analysis |
| To locate new roads in order to minimize cut & fill operations | 3D Urban Modeling and Photogrammetric Mapping |
| Selection of suitable sites for waste disposal | Mapping for area allocation to various needs like Industry, rehabilitation etc |

Ocean and Coastal studies

| Potential fishing zones (PFZ) | Sea surface temperature (SST) |
|-------------------------------|-------------------------------|
| Coastal zone management | Coastal processes, |
| Coral reef studies, | Mangrove changes |
| Aquaculture | Coastal information Systems |

Land Record Modernization

| Cadastre map digitization & georeferencing | Contour Digitization |
|--|---------------------------------------|
| Watershed prioritization & planning | Drainage network mapping and updating |
| Parcel Mapping | Cadastral Mapping |
| Mapping for EIA studies | Mapping for DPR preparation |

Integrated Surveys and Generation of action plans

| Natural resource database generation | Mapping of slums and medical facilities |
|---|---|
| Sustainable development of land and Water resources | Integrated natural resources management program |

Natural Resource Management

| Catchment treatment planning | Environment Impact Assessment (EIA) |
|------------------------------|---|
| Ground Water Assessment | Sustainable Hydro-power assessment |
| Bio-mass assessment | Disaster Susceptibility analysis and Risk Mapping |

Telecommunication / Tourism,/ Environment /Socio-economic impact

Computer Aided Drafting (CAD)

| 2D drafting | | Architectural Drawing |
|------------------------------|-----------------|--------------------------------------|
| 3D Rendering ar Rendering | d Architectural | Civil Drawing and Mechanical Drawing |

Computer Aided Manufacturing (CAM) & Computer Aided Engineering (CAE)

| General Layout & Landscaping CAD Drawings | Architectural Floor Plan CAD Drawings |
|--|--|
| Space Plan CAD Drawings | Furniture CAD Drawings |
| Reflected Ceiling Plans/ CAD Drawings | Interior Designing & Planning / CAD Drawings |
| Evacuation CAD plans & Structural CAD drawings | Sanitation & Piping Plan/ CAD Drawings |
| Elevation CAD Drawings & Sections CAD drawings | Detailed Working CAD Drawings & HVAC CAD Drawings |
| Electrical CAD Drawings, Sewerage & Drainage Plans/ CAD Drawings | Virtual designs, CAD data conversion Vectorisation |

MANPOWER, COMPUTER HARDWARE & SOFTWARE

Advanced Geo-Tech Solutions is backed by a strong team of professionals, highly trained in computer processing of Remote Sensing data, GIS and GPS surveys etc. The team has ten highly qualified senior level scientists representing different fields of specialization, who are assisted by a core team of GIS experts / executives and data analysts and survey team of Junior Scientists and other Technicians. Additionally, more Project Scientists and Project Technicians are engaged on contractual basis from time to time, depending on actual requirements.

AGS is well equipped with the requisite computer hardware and software. In addition to the main Servers, the infrastructure includes Work stations, desk top computers and lap-tops. The licensed version of Arc GIS-10.0, ERDAS and ZW CAD and open source soft-wares provide the interpretational strength to the team.

All the necessary field equipments including the DGPS, Hand held GPS, high resolution GPS, Spectro-Radiometers, high end Altimeters, Brunton Compass, Clinometers and a host of other gadgets provide the essential support for accurate and

QUALITY ASSURANCE

Advanced Geo-Tech Solutions employs some of the most talented and dedicated professionals possessing advanced degrees and enviable credentials. Advanced Geo-Tech Solutions is committed, to offering highest quality standards – prerequisites to assure our customers complete satisfaction and maximum results.

Strict adherence to time-tested engineering principles and sound operating procedures help us ensure that best does it right the first time, every time. The primary focus is always to provide unparalleled expertise across diverse sectors and develop design-engineering capabilities of international standards from pre-feasibility to conceptualization.

All the deliverables undergo a three tier quality control procedure and the error percentage is less than the permissible limits as per specifications.

SECURITY

During course of interaction between Advanced Geo-Tech Solutions and your organization, it will be necessary to share information relating to your projects. All the information that is disclosed is considered confidential and will not be parted in any manner, to any third party, for any reason

DELIVERABLES

Advanced Geo-Tech Solutions creates a package to be returned to the client. The package includes all documents requested by the client including final electronic files on media, original hardcopies, invoice, etc. Electronic files can be destroyed or archived by Advanced Geo-Tech Solutions, as per the requirement or for future needs by the client. Final deliverables provided by AGS shall be on internationally standard formats, acceptable by all industries.

WORK AND EXPERIENCE

Over the last five years since AGS has been in the field of GIS and Remote Sensing, a number of thematic mapping and application projects have been completed. As on date, AGS has successfully completed more than 100 projects and has submitted the project reports to fullest satisfaction of the funding agency / client. The specialized areas where inputs have been generated and provided include the following:

| Land use / Land Cover studies | Sajra (Cadastral) mapping |
|--|---|
| Contour mapping, | Computer aided Drawing |
| Mapping of all medical facilities in urban area | 3D map and analysis Model making |
| Mapping of urban poor settlements (Slum Mapping) | Natural Resources thematic mapping and monitoring |
| Drainage System mapping / monitoring | Base Map preparation and mapping |
| Tax assessment (Urban Mapping) | Door to door garbage collection plan |
| R-APDRP mapping | Base line survey |
| Household survey | GPS / DGPS survey |
| Structural Planning | Designing (civil engineering) |
| Estimate Preparation | Wea <mark>ther monitorin</mark> g and Mapping |

AGS has been associated with the National Land Record Modernization

Program by way of Scanning, Digitization and Up-dation of the Cadastral Maps of

five districts of U.P.. This has been presented and appreciated by the Board of

Revenue / Revenue Department, U.P.

AGS is implementing projects in more than 35 district of U.P., Uttarakhand, Madhya Pradesh and Bihar. Mapping for Land development and Water Resource (LDWR) under the IWMP (Integrated Watershed Management Programme) scheme has been completed and more than 100 <u>DPR's</u> have been prepared and successfully submitted to the concerned departments.

Additionally, AGS is implementing projects approx than 15 district of U.P. for the

preparation of District Irrigation Plan (DIP) under Pradhanmantri Krishi Sinchayee Yojna (PMKSY).



