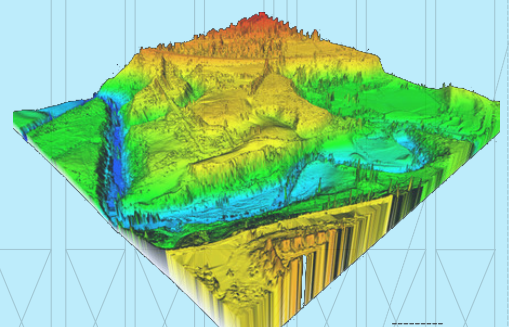


Survey, Investigation, CAD/GIS, LiDAR, Photogrammetry, RoU, Land Acquisition, Irrigation, Highway Engineering, Civil Constructions and Manpower Services



ARETECH Domain Expertise and Service Offerings

- Topographical Survey and Mapping.
- Geotechnical Investigation.
- Land Surveying, Cadastral and Parcel Mapping.
- ROU and Land Acquisition Services.
- Mobile LiDAR and UAN / Drone data Capture.
- Irrigation and Flood Control Engineering.
- Detail Engineering for Highways, Bridges and Transportation Engineering.
- Water, Sanitation Engineering, Electrical, Street lighting and Telecommunication Engineering.
- Civil and Structural Design.
- Building / Architecture plans, 3D Elevation, Interior design, and Building Construction.
- CAD / GIS Mapping.
- GIS data conversion and Maintenance.
- Environment Impact Assessment and Management.
- Project Supervision and Management
- Photogrammetry, LiDAR and Satellite Data Processing.
- Land Information and Asset Management.
- Manpower Services / Resource Deployment.



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ARE TECH CONSULTANTS (ARETECH)

ARE TECH CONSULTANTS an ISO 9001: 2015 Engineering firm, established in 2019, based in Bangalore and Hyderabad, having camp offices in Hassan, Magadi, Ananthapuramu and Chennai in India. ARETECH offers most of the services related to the Engineering Consultancy field at reasonable Cost with high Quality on Time.

ARETECH provides complete solutions related to Survey, Geotechnical Investigation, GPR, NDT, CAD/GIS, LiDAR, Photogrammetry, LA Services, Macro & Micro Irrigation study / Flood modeling, Highway Engineering and Manpower services.

Provides GIS compatible Deliverables. Comprehensive GIS driven data capture, processing and creation of GIS database and GIS Asset Management System. Engaged in ROU, Land Acquisition and obtaining project related clearances from the concerned authorities.

ARETECH's experience in the field of Data capture, Processing using latest Technology, Design services ensures the capability, desired expertise for timely, cost and quality based deliverables.

ARETECH is MSME firm with Class-III Civil Contractor, Labour License, ESI, PF & PT registration.



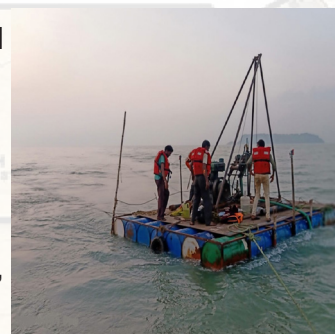
SURVEY & INVESTIGATION

- **Topographical Survey:** Includes establishment of DGPS / Ground Controls, DT/ST Leveling, Traversing, Monumentation of Pillars for Controls/BMs, Boundary and Grid Pillars as per Client specifications for Pipeline, Road / Highway Alignments, Irrigation, Area Survey and other infrastructure projects, updation and macro level mapping.
- Blow-up Survey, Block level Survey, Hydrological and Hydrographic Survey, Mobile LiDAR and UAV data Collection.
- Site / Property Survey, Cadastral / Revenue Survey, including Collection of documents from various, Govt Authorities.
- 2D/3D terrain Modelling and Deformation Studies.
- Drone / UAV, mobile LiDAR Survey
- Generation of Planimetry, LS, CS and Blow-up maps using CAD/GIS.

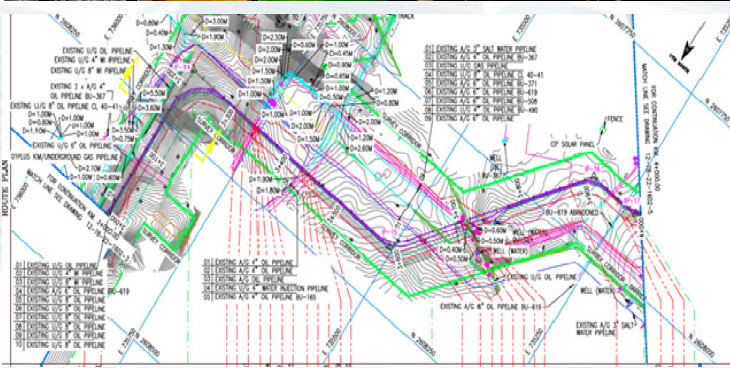
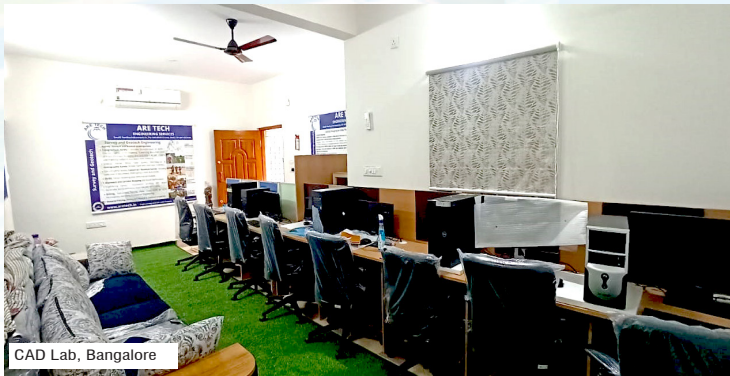
- Feasibility study, Route optimisation, Corridor / Strip Mapping, RoW Setting out - Road, Rail, Pipelines, Power line, Canal etc.
- Pipe locating, Underground utilities detection and mapping.

Geotechnical Investigation:

- Engineering Survey / Sub-bottom Profile, ERT, Auger Boreholes, Soil stratification, Fault line and NTD Survey.
- Drilling - Extensive Vertical, Horizontal and Inclined Drilling.
- Material and Pavement Investigation for Highways and Structures.
- Specialised Investigations, Testing and Sampling.
- Specialized Testing, Plate Load, SCPT & DCPT, Permeability, Vibration, Foundation Engineering.
- Material Testing, Testing for Physical and Chemical Properties.
- Hydro-biological Investigation for Land Reclamation.
- Ground Water and Resistivity Survey.
- Aggressively and Corrosion Survey.
- Specialised Investigations, Testing and Sampling.
- Lab Testing - Soil, Water, Rock, CBR - Soaked & Unsoaked, Triaxial Shear, Field density, Grain Size Analysis, Free Swell index, Proctor Compaction Test, Atterberg's limit, etc. as per Client specifications.



The above site pictures are for Drilling in Water, Surface and deep drilling.



CAD/GIS Mapping:

- ARETECH is having extensive experience in Geographical Information Systems (GIS) and Computer Aided Engineering Design (CAD) and Executed handful of works for clients in India and Abroad.
- ARETECH undertakes-CAD/GIS Driven services, CAD / GIS Conversion, Digitization, Geo-referencing, GIS compatible Maps and Geo-database creation and maintenance.
- Preparation of GIS database for Projects and Maintenance.
- For Global projects, ARETECH offers a full range of LiDAR/ Photogrammetry data compilation services.
- Digital Terrain Modeling and contour generation 3D city and feature.
- ARETECH specialized in entire spectrum of LiDAR data compilation with experienced staff advanced LiDAR data processing software and work.
- Customization for CAD using LISP, LiDAR tool software development and automation.

Highway Engineering and Construction Supervision:

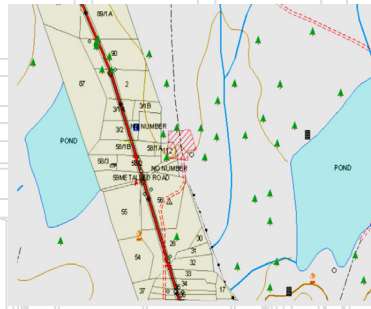
- Survey & Investigation Services including pavement, hydrology and location of utilities.
- Traffic inventory, condition survey, BBD and Roughness Survey and Analysis.
- Environment Impact Assessment and Social Impact Assessment.
- Asset Inventory Survey - Road & Bridges and Data Collection.
- Compilation of Revenue Data/maps and Land Acquisition - 3(a), 3(A), 3(D) Notifications preparation and follow-up for publication.
- ROW Fixing - Staking of Final Alignment, RoW pillar embedding and assisting in Valuation of Structures.
- Preparation of deliverables - Inception Report, Horizontal Alignment, Working Cross Sections, Structure Drawings, Junctions and other Typical drawings, Technical specification, Draft Feasibility Study Report (DFR), FFR, LA Plans, Utility Shifting.
- Assisting Competent Authority and obtaining Project Clearances from Wildlife, Forest, MOEF (As required).
- Client / Independent third-party verification and certification.
- Project Supervision and Contract / Project management for building, industrial and infrastructure facilities.
- Technical Control, Site supervision in accordance with technical and construction related requirements.
- Continuous supervision of construction works (BOQ - quality, schedule and budget), QC and Certification.
- Facility management and maintenance supervision - Claims, Reviews and Arbitration
- Permanent supervision by experienced professionals and Programmer management of infrastructure projects.
- Building Information Modeling services (BIM) for civil, buildings and industrial projects.



RoU & Land Acquisition Services:

Crossings & Forest Permissions / Approvals from various Authority
RoU / RoW services for Pipeline & Road Projects.

- Preparation of Crossing Drawings, Proposals, Joint site inspections, follow-up with concerned Authorities, obtaining Demand Note and Final permissions after making necessary payments through Client.
- Collection of Revenue Documents / Data, verification of details, Assisting Client for Appointment of Competent Authorities (CA) for the Project.
- Permanent Land Acquisition services for SV/CP/IP/PS/RT/DT/TOP and Terminal Stations for Pipeline Projects.
- Preparation of Schedules for Land Acquisition as per Act, Obtaining necessary approval and signatures of CA, submission of notifications to Government and Follow-up for Publication of Schedule in Gazette of India.
- Serving of Notices to Land owners / interested parties and carrying out Joint measurement Survey, Objection Hearing & Panchnama Survey.
- Collection of land rates from SRO, Yield & Rates for Crops and evaluation reports for Horticulture Trees, Forest Trees, Structures for preparation of Award for Land, Crops, Horticulture Trees, Forest Trees and Structures as per Panchnama Report.
- Award preparation, obtaining approvals from CA, distribution of compensation and maintaining records Village wise / Survey number / Owner wise.
- Preparation of RoU Closure Notification and handing over to Client.

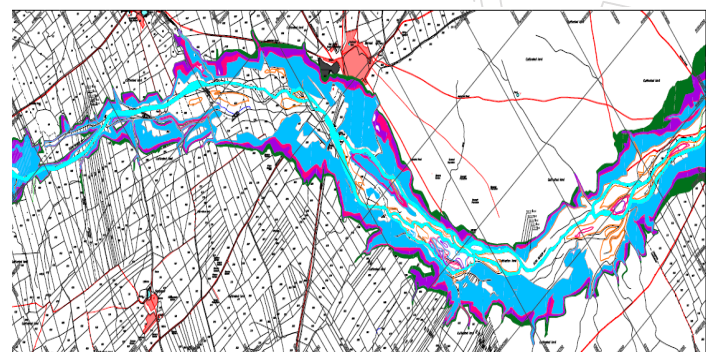


Town Planning and Urban Development:

- Detail Engineering Survey and Investigation studies.
- Land use analysis, conceptual and layout plan preparation.
- Design of approach roads and internal road network.
- Design of Water supply scheme, Storm / Rain water and underground drainage (UGD) system.
- Design of Power Supply and Distribution Network.
- Design of Utilities.

Irrigation and Flood Control Management:

- Detail Survey - Macro & Micro Level Survey
- Geotechnical and Geological Investigations
- Land Acquisition and Rehabilitation plan for submerged area.
- Catchment Area, Reservoir Dam and Canal Networks
- Hydrology, capacity survey and Sedimentation analysis for Reservoirs
- Hydraulic Model Study, Flood Control
- Planning - Comprehensive Planning for Irrigation Command area, Barrages, Diversion Weirs and Overflow
- Modernization and Restructuring, Rehabilitation and Re-settlement
- Integrated River Basin Planning, Water Table Yield and Aquifer Studies
- Water Management and On Farm Development activities planning
- Feasibility Reports and Detailed Project Reports for the AOI
- Design of Hydraulic Structures, Cross Drainage Works, Regulators, Escapes, Outlets, Canal Sections, Earth Work, Flood control works
- Leak detection and turnkey solution.



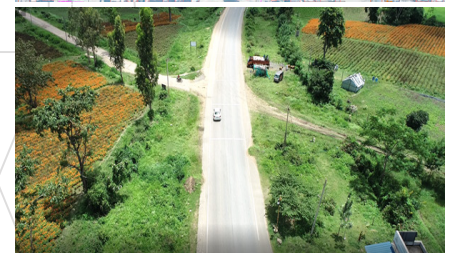
Building Constructions, Architecture and Interior Plans:

- We are specialized in all types of construction works, Housing, Delivering New Building, Renovations, Construction Supervision and Project Management.
- Understanding the Client Requirements, we offer a personalized service to create spaces and buildings that delight and add values.
- Offers best services beginning with Site measurement, sketch concept options, through to full planning permission and delivery on site. We provide 2D floor plans, 3d Elevations, 3D Interior views / Walk through, Landscape Design, Electrical, Plumbing, Structural Drawings.
- ARETECH have in-house reliable and skilled Architects, Masons, Engineers and Quality Surveyors to assist in bringing the projects to life.
- Site supervision in accordance with technical and construction related legal requirements.
- Continuous supervision of construction works (quality, schedule and budget). Building Information Modeling services (BIM) for civil, buildings and industrial projects.



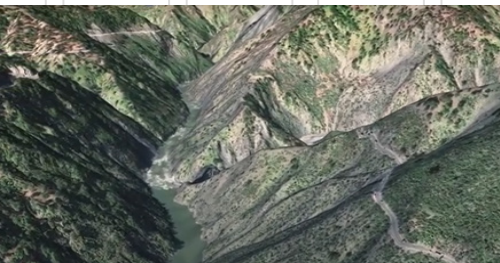
Photogrammetry, LiDAR and Remote Sensing

- Aerial Triangulation for Aerial Photos / Exterior Orientation (EO) for Satellite Imagery.
- Satellite image processing, orthorectification, pansharpener
- Stereo compilation & feature extraction
- DEM/DTM, Contour generation.
- Ortho photo generation Mosaicing / Tiling.
- Image interpretations and land use classification
- 3D City and Feature Modeling.



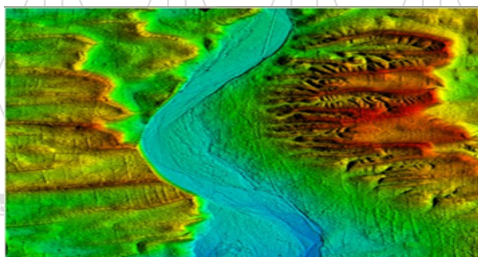
Remote Sensing:

- Auto DEM Extraction.
- Other citification.
- Pan sharpening.
- Image Misaiming.
- Atmospheric corrections.



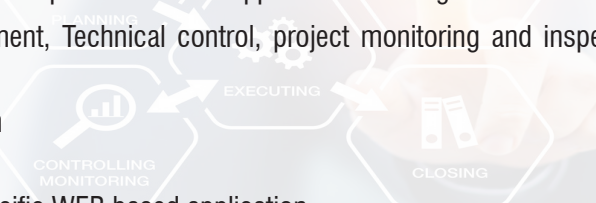
LiDAR Model for Flood Mapping:

- Digital Terrain Modeling and contour generation.
- LiDAR data classification & editing, contour, feature collection
- Asset Management (Power line, Pipeline, Highways.)
- Heritage, Tunnel and as-built mapping.
- Geodata base creation.



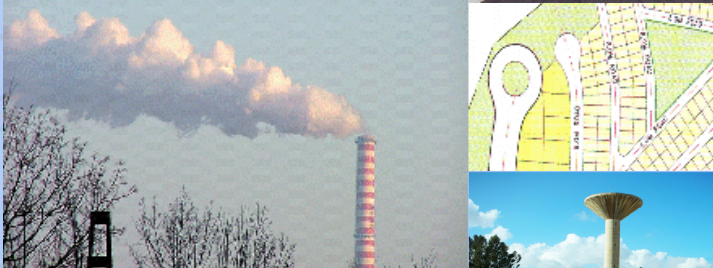
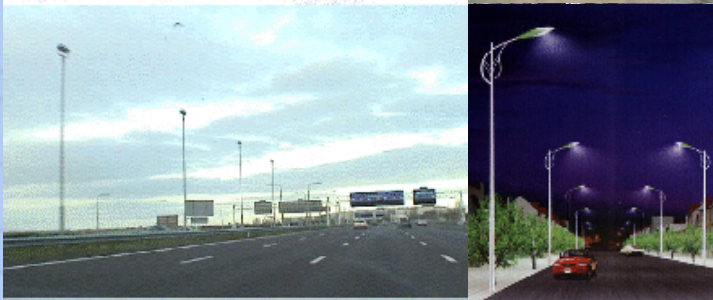
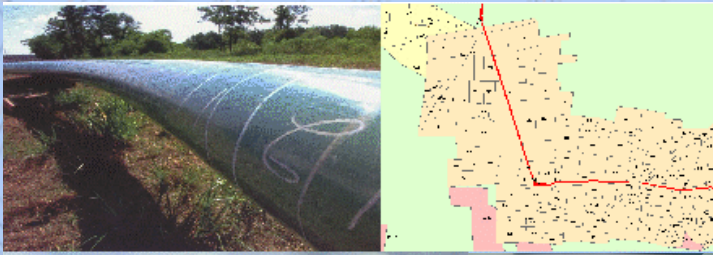
Project Management:

- Project Management team have expertise in developing indigenous techniques of Planning, organizing, monitoring, quality control, cost control and managing source of achieve successful completion of project goals and objective within the specified budget and time taking into consideration, relevant specifications as applicable including local conditions.
- Project and contract Management, Technical control, project monitoring and inspection services
- Quality control and certification
- Claims, reviews and arbitration
- Capable to develop project specific WEB based application



ARE TECH CONSULTANTS

Survey, Investigation, CAD/GIS, LiDAR, Photogrammetry, RoU, Land Acquisition, Irrigation, Highway Engineering, Construction & Manpower Services



Gas, Oil, Slurry, Raw Water Pipeline Network

- Detail Survey, Geotechnical Investigation, Planning of Integrated pipeline network development for connecting major consumer centre such as Special Economic Zones (SEZ), Industrial units, Power plants, Fertilizer units and commercial establishments including related investigations and GIS/GPS/Remote Sensing based Feasibility studies for identification of Route for laying cross country / parallel pipelines
- Preliminary 3D analysis of pipeline corridors using latest satellite stereo images, generation of Route Maps, Alignment Sheets, Cross sections, Cadastral Mapping including generation & management of ownership details, Construction drawings and As-built Drawings

Water Supply, Sewage, Storm Water Drainage, Electrical, Street-Lighting and Telecommunication Network

- Data collection of Existing utilities, WTP, EWT, GLT, PS locations, STP, Pressurised / Gravity networks, Survey, Investigation, study of existing network, design criteria, EIA/EMP studies, Client requirements, Design Demand and other requirements
- Preparation of GIS compatible Base Maps, Master Plan, Conceptual layouts, Distribution Network layouts, Mechanical Drawings, Structural Drawings, Architectural Drawings, Standard Drawings, Plan and Profiles, HGL Profile Drawings, CWS/WTP layout, STP layout and Single Line Diagrams, Ducting drawings, Earthing Details for Electrical & Telecommunication Networks

Irrigation and Water Management

- Capacity Surveys, Watershed Surveys, Geological, Geotechnical and material Investigations, Hydrologic studies for water availability and floods, Design of Dams, Canals, Spillways and Appurtenant works, weirs and barrages, Environmental Impact Analysis, Structural safety analysis, Design of foundation treatment including grouting

Highways, Bridges, Flyovers and RoBs

- Feasibility study, control survey and setting out. Geotechnical Investigation for Sub-Grade. Material, pavement and hydrological investigations. Traffic Survey and Analysis. Road Inventory and Pavement Condition Survey. Environmental study and Rehabilitation. Land acquisition and relocation of utilities. Design of vertical and horizontal geometrics. Design of bridges, flyovers, ROBs and related structures
- Detailed Project Report, Cost estimates, BOQ and Bid Documents

Hyderabad Office

No. 2-3-35/4A, R Devilal Complex, Main Road, above HDFC Bank, Uppal,
Hyderabad 500039, INDIA
Tel: 040-49027671, Mob: 9611044295 / 7207779042
Email: ka@aretech.in / projects@aretech.in

Registered Office

57, Gangothri Layout, 4th Block, Ayyappa Nagar,
K R Puram, Bangalore-560036, INDIA
Tel: 080-43771759, Mob: 9611044295 / 9880850476
Email: feedback@aretech.in / ka@aretech.in

Camp Offices: Hassan, Ananthapuramu, Chennai <https://aretech.in>

