

"Our main regret is that we didn't know of your existence at the time of starting work, that would have certainly solved many problems for us."

Spie-Capag/NKK/Toyo Consortium

## Major Projects

### Narmada Valley Development Authority Irrigation Project, India

SECON generated DTM and prepared a Base Map for 17,000 Sq Km catchment area in Narmada River Basin, India, using photogrammetric compilation from High Resolution Stereo Satellite Imagery combined with Ground Survey. This method was used for the first time in India over such a large area and the results achieved were a benchmark even for the satellite image provider.

### Urban Property Ownership Records (UPOR)

SECON has successfully completed the pioneering Urban Property Ownership Records (UPOR) project for city of Mysore which is spread over 200 Sq Km and has 275,000 properties. The tolerances achieved were <10cm for property corners.

### World Bank aided Topographic and Cadastral Survey and Preparation of Land Information Database, UP, India

Land Surveying with GIS Database for rehabilitation and modernization of irrigation networks for efficient water management covering 6150 sq km and 2.5 million properties.

### Alignment Fixing for Expressways

SECON was the pioneer in India to use Stereo Satellite Images to fix the alignments for the Mumbai-Vadodara, Bangalore-Chennai, Delhi-Meerut and Delhi-Jaipur expressways.

### Airborne and Mobile LiDAR Mapping

500,000+ Sq Km of successful Airborne LiDAR classification done by SECON in recent years covering USA, Canada, Europe, Africa, South America and Australia for leading Mapping and Engineering firms. Work covered Flood Plain Mapping, Power line Mapping, Highway and Pipeline Corridor Mapping, 3D City Modeling.

LiDAR Data Classification for European and North American Highways using Mobile LiDAR Mapper

### Cairn Energy, LiDAR Flood Modeling, Barmer, India

SECON is the first private company in India to do a Airborne LiDAR survey for flood modeling

### Preparation of Basemaps from Aerial and Satellite Photos for over 200,000 sqkm

### City Gas Network, Gujarat, India

Web based Enterprise GIS Development, Database Collection and Compilation for 22 Cities in Gujarat, India.

### Pipeline Asset Management System (PAMS)

Web based Enterprise GIS solution to manage Pipeline Assets for the Entire Lifecycle of the Pipeline - Planning, Pre-Construction, Construction, Post Construction, Operation and Maintenance.

### Geo Route Management System (Geo RMS)

Web based Enterprise GIS solution to manage Fleet Routing and Vehicle Tracking for Indian Oil Petroleum Stations. Application can be used for any agency with Route Optimisation and Fleet Vehicle needs - Solid Waste Management, Oil and Gas Distribution, Logistics, Public Distribution System, Minerals, Metropolitan Bus Transport, Taxi Services.

### ROW/ROU Master

Web based software to manage the entire Land Acquisition process for Infrastructure Projects. Used on more than 30000 km of Pipelines and also on Expressway and Highway projects

## Awards

- **Best Professionally Managed Company 2014** - Construction Industry Development Council (CIDC)
- **Geospatial Company of the Year 2013** - India Geospatial Forum 2014
- **Best Project for Urban Infrastructure 2011** - Construction Industry Development Council (CIDC)
- **Export Excellence Award (Gold) 2010** - Federation of Karnataka Chambers of Commerce & Industry (FKCCI)
- **Export Excellence Award (Silver) 2008** - Federation of Karnataka Chambers of Commerce & Industry (FKCCI)
- **Certificate of Appreciation 2012** - Gas Authority of India Limited (GAIL)
- **Woman Consultant of the Year 2012** - Consulting Engineers Association of India (CEAI)
- **Woman Consultant of the Year 2009** - Consulting Engineers Association of India (CEAI)

### Corporate Office:

Plot No. 147, 7B Road, Export Promotion Industrial Park (EPIP), Whitefield, Bangalore - 560 066, India

Tel: +91-80-41197778 Fax: +91-80-41194277 E-mail: feedback@secon.in

Branch offices: Mumbai, New Delhi, Vadodara, Hyderabad, Jaipur, Bhopal, Lucknow and Guwahati

<http://www.secon.in>

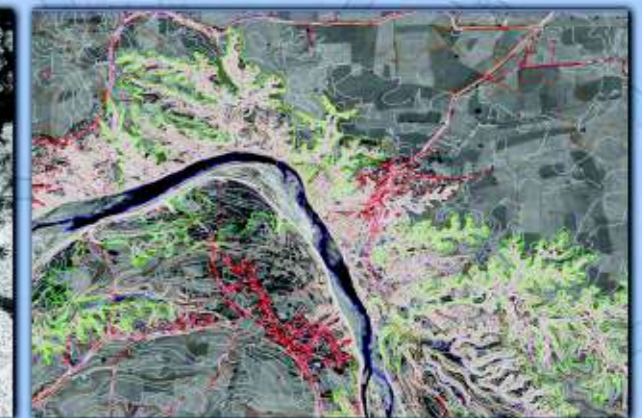
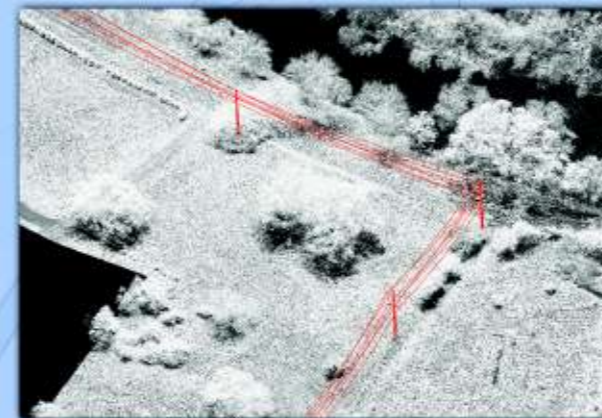
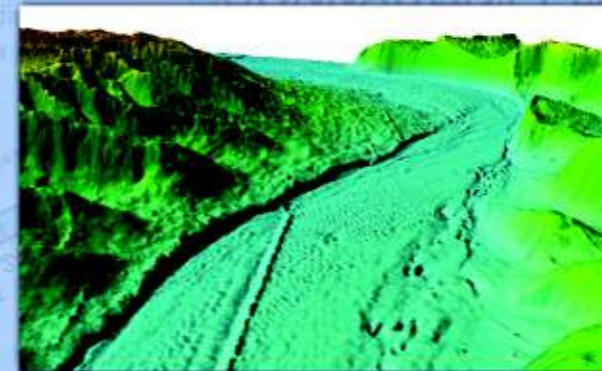


# SECON

(CMMI Level 3, ISO 9001: 2008, NABL Accredited firm)

## GIS Driven Multidiscipline Engineering Consultancy

## GEOSPATIAL SERVICES



- GIS Based Land Information Systems and Establishment of Property Ownership Records
- Aerial and Satellite Photogrammetric Mapping
- Airborne and Mobile LiDAR Mapping
- GIS Based Asset Management Systems
- Remote Sensing and Satellite Image Processing
- GIS Driven Software Development

## Total Solution from a Single Window

SECON is an ISO 9001:2008, NABL Accredited and CMMI Level 3 Certified Multidiscipline Engineering and Mapping Firm, established in 1981.

SECON is one of the leading Multidiscipline Engineering Consulting Firms and one of the largest and oldest Surveying and Mapping firms in India.

SECON has worked for clients all across the world especially in India, North America, South America, Canada Australia, Africa, Middle East and Europe.

SECON is probably the only company in India to offer a comprehensive solution for Geospatial Services right from Survey and Data Collection, Design Engineering and GIS Based software Development. This comprehensive domain experience of over three decades in all types of terrain sets it apart from other Geospatial companies.



### GIS Based Land Information Systems and Establishment of Property Ownership Records

SECON has over 3 decades of experience in Property and Cadastral Mapping with all technologies:

- Ground Survey Method
- Satellite Images
- Aerial Photography

SECON also has experience in establishing GIS Based Web Enabled Land Information Systems for Revenue and Land Records Departments for Agencies that manage Property Records.



GIS Based Cadastral Mapping

### Aerial and Satellite Photogrammetric Mapping

SECON has developed a hybrid method combining use of High Resolution Stereo Satellite Images with optimized Ground Control and Field Validation. This method has achieved accurate results in a faster and cheaper manner compared to purely conventional Ground Survey or Aerial Photography methods.

The accuracy derived from this method of mapping was a benchmark even for the Satellite Image provider. This method is more cost effective and faster compared to purely Aerial or Ground surveying, especially in developing countries where the economics, logistics and security issues regarding Aerial Photography and LiDAR are much more difficult and expensive compared to developed countries.

#### Services offered

- Aerial Triangulation
- Stereo Compilation
- Digital Terrain Modeling
- Orthophotos
- 3D City Modeling
- Geodatabase Creation
- Support for Vision Map Images, LiDAR Stereo, SAR(IFSAR) Stereo, Images from UAV's and for all large format Camera's



Map Compiled from Stereo Satellite Photogrammetry

SECON also has the capability to undertake Aerial Photography and Data Acquisition for all types of Mapping- Aerial Photo, LiDAR, Hyper spectral and Airborne Geophysical Surveys.

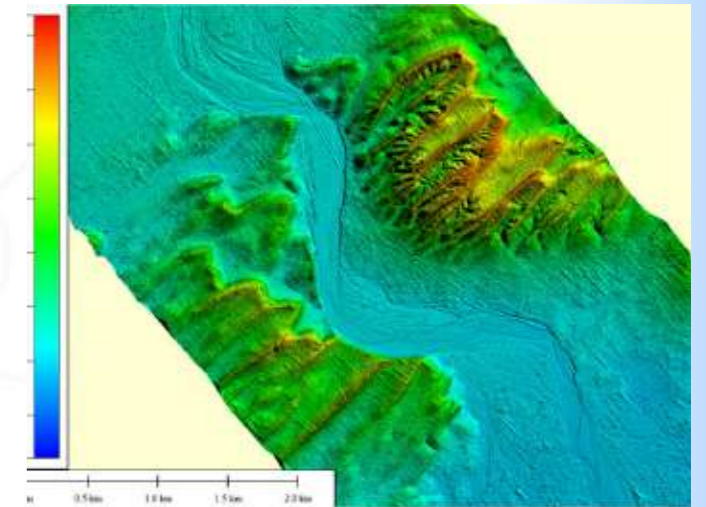
### Airborne and Mobile LiDAR Mapping

SECON has completed the LiDAR Projects for varied terrains across the globe in North America, Europe, Asia, Africa, South America, Canada and Australia. Work covered Flood Plain Mapping, Power line Mapping, Highway and Pipeline Corridor Mapping and 3D City Modeling

SECON also has the capability to undertake Aerial LiDAR and Mobile LiDAR Data Acquisition for all types of Mapping and the first company in India to do Aerial LiDAR Data Acquisition for projects in India.

#### Services offered

- Digital Terrain Modeling, Digital Surface Modeling and Contour Generation
- Asset Management (Power line, Pipeline, Highways, Railways)
- Geodatabase Creation
- 3D City and Feature Modeling



Flood Mapping from LiDAR Data

### GIS Based Asset Management Systems

SECON has a CMMI Level 3 Certified Software Department to support its Field Survey department

#### Services Offered

- Needs Assessment, Gap Analysis and Architecture Design
- Field Data Collection and GIS Database generation
- GIS Based Web Enabled Software Development
- Integration with other software for Billing, ERP, Emergency Response, Vehicle Tracking



City Gas Web Application

### Remote Sensing and Satellite Image Processing

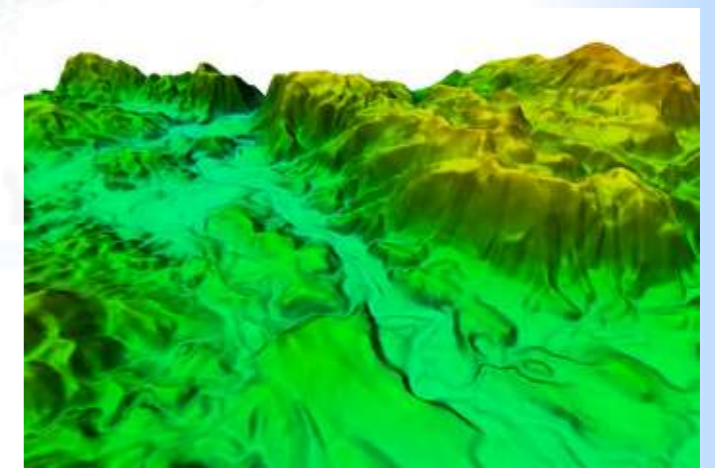
SECON has processed and compiled more than 600,000 Sq Km of Aerial Photos and Satellite Images to support mapping for Urban Planning, Irrigation Planning, Highway Alignment, Land Use Classification and NDVI Vegetation Index Classification.

#### Services Offered

- Photogrammetric Compilation
- 3D Digital Terrain Modeling
- Image Processing and Interpretation
- Land Use Classification
- Change Detection

### GIS Software Development

SECON offers web enabled Enterprise GIS Solutions based on Open Source and Commercial Software Packages.



3D Digital Terrain Modeling