Introduction of Digsur

February, 2020
Established in 2004, Beijing Digsur Science and Technology Co., Ltd (abbreviated as Digsur) is a national high-tech enterprise, one of the top 100 enterprises in China’s geographic information industry and a Z-park high-tech enterprise.

Registered Capital: 72.61 million CNY
Industry: Surveying and mapping geographic information industry (Modern service industry)
Clients: Government units, public administration agencies, enterprises and institutions
01. Overview of Digsur

◆ We are:
  ✔ Initiating and supporting unit of Professional Committee of Cultural Heritage Protection of Chinese Society for Geodesy Photogrammetry and Cartography;
  ✔ Director council unit of Aviation Special Committee of Central Netcom Civil-Military Integration Alliance;
  ✔ Innovative Excellent Unit by Chinese Society for Geodesy Photogrammetry and Cartography.

◆ We established Digsur Science and Technology Association and a post-doctoral research station;

◆ We own national class-A qualification for surveying and mapping (8 items), certificate of solid mineral exploration qualification, certificate of solid mineral exploration qualification, dual qualification of military / civilian airport flight procedure design, three-level confidentiality qualification for scientific research and production of weapons and equipment.
With the commitment to data collection, integrated applications, and continuous operation services for geospatial information, Digsur company comprehensively applies such technologies as satellite remote sensing, aerial photography for mapping, surface precision mapping, underground geological exploration, the Internet of Things, and big data.

The company provides high-quality and continuous technical services for urban and rural planning and natural resources, urban and rural construction and smart cities, agricultural and rural revitalization, cultural heritage protection, military and civil aviation information, transportation and water conservancy, cultural tourism, emergency management, ecological environment and other fields. Other high-tech services we provide including airspace structure planning, flight procedure design, airport clearance and electromagnetic environment assessment, and aviation charting for airports construction.
Brand Influence

- One of China's top 100 geographic information enterprises;
- National class-A qualification for surveying and mapping (8 items);
- Director council unit of Aviation Special Committee of Central Netcom Civil-Military Integration Alliance;
- Supporting unit of Professional Committee of Cultural Heritage Protection of Chinese Society for Geodesy Photogrammetry and Cartography;
- Innovative Excellent Unit by Chinese Society for Geodesy Photogrammetry and Cartography;
- Supervisor unit of China Association for Geographic Information System;
- A Standing council unit of Beijing Land Science Society;
- The only enterprise obtained dual qualifications of military/civil aviation flight program design domestically.

01. Overview of Digsur

Core Competitiveness

Technological Advantages

Digsur boasts such core technologies as multi-source data collection and integration processing, three-dimensional stereo modeling, extended Kalman filter rotor attitude calculation, and a smart map of spatio-temporal information, which can be applied to crack technical problems encountered in multi-source data collection and information retention, smart city big data integration, and three-dimensional stereomodeling.
**Innovation Advantages**

Digsur adheres to the development philosophy of occupying the commanding heights of technology through innovation. We own over 30 utility model patents and software copyrights; we have obtained over 30 awards in surveying and mapping geographic information industry including two first prizes and three second prizes by Chinese Society for Geodesy Photogrammetry and Cartography and one first prize of science and technology progress by China Association for Geographic Information System, one Top 10 Wenbo Technology Product Award.

**Team Competitiveness**

- A professional team with high-educated and young members.
- In December 2017, Digsur R&D institute was established with over 20 experts home and abroad being absorbed to the expert database.
- Digsur Association of Science and Technology was established in April 2019.
- Digsur academician workstation was established in September 2019.
01. Overview of Digsur Organization

Organization of Digsur Company

- Shareholders Meeting
- Supervisory Board
- Board of Directors
- President
- Vice President (Production Delivery Center)
- Vice President (Marketing Center)
- Vice President (Strategy Supporting Center)
- Project Management Dept
- Business Development Dept

Digsur Labour Union

Industry-college-institute Cooperation Base
01. Overview of Digsur

- One wholly-owned subsidiary;
- 20 branch offices;
- Business across the country.

Company Branches

Beijing Digsur
Zhejiang Digsur
Guangxi Branch
Xi'an Branch

(The map was downloaded through the website of the Ministry of Natural Resources of the People's Republic of China)
Awards

- **Technology Innovation Excellent Unit Award by Chinese Society for Geodesy Photogrammetry and Cartography (2018)**

- **First Prize for Surveying and Mapping Science and Technology Progress by Chinese Society for Geodesy Photogrammetry and Cartography (2018)**

- **First Prize in Surveying and Mapping Technology Progress by Chinese Society for Geodesy Photogrammetry and Cartography (2016)**

- **Second Prize in Surveying and Mapping Technology Progress by Chinese Society for Geodesy Photogrammetry and Cartography (2018)**

- **First Prize of Geographic Information Technology Progress by China Association for Geographic Information System (2018)**

- **2018 Second Prize in Surveying and Mapping Technology Progress by Chinese Society for Geodesy Photogrammetry and Cartography**

01. Overview of Digsur
01. Overview of Digsur

Awards

- Special Award for Surveying and Mapping Technology Progress by Beijing Society of Surveying and Mapping (2018)
- Excellent Engineering Bronze Award by China Association for Geographic Information System (2019)
- First Prize of Geographic Information Engineering by Beijing Society of Surveying and Mapping (2018)
- Surveying and Mapping Technology Progress Award by Beijing Society of Surveying and Mapping
- Excellent Engineering Award by Beijing Society of Surveying and Mapping
01. Overview of Digsur

International Communications

Experts from International Society for Photogrammetry and Remote Sensing visited Digsur.
On March 25, 2019, CCTV reported the accomplishments in democratic reform of Tibet over the previous 6 decades and introduced the achievements in the protection of Tibetan cultural heritages by taking the digital protection of Potala Palace for an instance, which is competed by Digsur.

On March 31, 2019, governor of Jilin province met with heads of nonlocal science and technology enterprises.
Advantages:

- Digsur is equipped with complete business line and qualifications, covering geological surveying over three stages of a construction project, precision engineering surveying, construction (structure) health monitoring, completion surveying as well as other spatial data collection and processing including underground pipeline surveying and route surveying.
- With advanced technologies and equipment, professional and high-level team, the company has won numerous outstanding engineering awards, leading the country in the field of automation monitoring technology.
02. Technical Services

Typical Projects

Astana, Kazakhstan
Subway Engineering Survey

Potala Palace Drone Photography Control Measurement

Mentougou Control Point Measurement

Construction Monitoring of Pumei Railway in Fujian and Guangdong

Beijing Metro Engineering Survey

Deformation Monitoring of Viaduct in Changping District
02. Technical Services

Typical Projects

Underground Pipe Network Information System

Underground Pipeline Exploration

Road Disease Detection and Analysis

Shichuang Building Foundation Pit Exploration

Jiuhua Hot Spring Geological Exploration Drilling
### Advantages:

- Leading builder in the field of quantitative virtual restoration of cultural heritage, refined information retention, and diversified digital expression.
- Signed long-term cooperation agreements with 20 institutions including Chinese Academy of Cultural Heritage and the Palace Museum; maintain a long-term cooperation with over ten colleges including Beijing University of Civil Engineering and Architecture and Wuhan University.
- The initiating and supporting unit of the Professional Committee of Cultural Heritage Protection of Chinese Society for Geodesy Photogrammetry and Cartography.

### Service Area

<table>
<thead>
<tr>
<th>Cultural Heritage Protection and Application</th>
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<tbody>
<tr>
<td>Technical Service Items</td>
</tr>
<tr>
<td>Digital accurate mapping of cultural relics and information retention</td>
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<tr>
<td>Cultural relics display application</td>
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<tr>
<td>Virtual restoration design</td>
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<tr>
<td>Cultural relics management information system</td>
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<tr>
<td>Cultural tourism information system</td>
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<tr>
<td>Cultural and creative product design</td>
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<tr>
<td>Museum indoor positioning and guiding system</td>
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</tbody>
</table>
02. Technical Services

Typical Projects

- Reverse Engineering of Sofia Church
- 3D Model Reserve of Potala Palace
- 3D Model of the Guanin in Longshan Temple
- Cultural Heritage Health Monitoring and Disease Analysis
- Smart Museum System
Advantages:

Digsur possesses professional teams in aerial photography, remote sensing data processing, automatic monitoring and geology investigation to realize the information acquisition, data analysis, disaster assessment, forecasting and early warning of integrated air-space-ground geological disasters. We presided over such projects as the land-use right confirmation registration project, the third national survey project, the landslide monitoring and evaluation, and the construction and construction safety operation monitoring over many counties and cities across the country.

<table>
<thead>
<tr>
<th>Service Area</th>
<th>Technical Service Items</th>
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</thead>
<tbody>
<tr>
<td>Natural Resource Surveying and Monitoring</td>
<td>Real estate mapping and land-use right confirmation</td>
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<tr>
<td></td>
<td>Engineering geological surveying and landslide monitoring</td>
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<tr>
<td></td>
<td>Land planning and improvement surveying</td>
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<tr>
<td></td>
<td>Channel, underwater and underground surveying</td>
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<td>Ecological environment monitoring</td>
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02. Technical Services

Typical Projects

Geological Disaster Monitoring

The Third Land and Resources Survey

Xinjiang Hetian Rural Cadastral Survey

In SAR Technology Surface Settlement Analysis

Outcome of project on the third second national land survey in Otog Banner

Xinjiang Hetian Rural Cadastral Survey
**Advantages:**

Digsur boasts such core technologies as multi-source data collection and integration processing, three-dimensional stereo modeling, extended Kalman filter rotor attitude calculation, and a smart map of spatio-temporal information, which can be utilized to crack technical problems encountered in multi-source data collection and information retention, smart city big data integration, and three-dimensional stereo modeling. Therefore, it can be innovatively applied to GIS projects such as the smart pipe network of Daxing Biomedical Base and a map of the space-time information of the future science city.
02. Technical Services

Typical Projects

- Time and Space Information Cloud Platform
- Multi-regulation integration spatial information platform
- Geographic Information Service Platform
- Smart Pipe Network Information System
- Smart Agriculture Big Data Platform
- Government Information System
Advantages:

An excellent team in the air surveying and mapping navigation system; maintains a good corporative relationship with the Central Committee of the Military Commission, the National Air Traffic Control Committee, and the Air Force and civil aviation management bureaus of various theaters; strong advantages in airspace application and aircraft dispatch; we own the qualification for the confidential research and production of weapons and equipment and also dual qualifications for military / civilian airport flight program design. Digsur provides airspace structure planning, airspace capacity assessment, flight procedure design and other navigation technical services for over 70 domestic military and civilian airports and domestic new military and civilian aircraft types.
Provided aviation information services for 70 airports including Yanliang, Yaohu, Yuncheng, Zhanghe, etc..
Designed and provided dedicated flight procedures and simulation flight verification for the most advanced military and civil aviation aircraft in China such as the J-20, Yun-20, H-6K, AG-600 and C-919

Visual flight chart is the basic aeronautical data for low-altitude visual flight, and serves as the protective umbrella and compass for low-altitude flight. This business serves existing and new military airports and civilian airports.

Electromagnetic Environment Evaluation
PNB Flight Procedure Designs
Weather Map Basemap Production
Visual Chart of Wuhan
Visual Flight Chart Specification Procedure
# Technical Services

## Mapping Aerial Photography

**Service Area**

<table>
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<th>Technical Service Items</th>
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<tr>
<td>Mapping aerial photography</td>
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<tr>
<td>Manned aerial photogrammetry</td>
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<tr>
<td>UAV aerial photogrammetry</td>
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### Advantages:

We own internationally advanced digital aerial cameras, domestically advanced multi-type drones and tilt cameras. Boasts significant advantages in airspace applications and aircraft scheduling.

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Beijing aerial photography special - aerial photography in 2016, 2017, 2018 for three consecutive years

Potala Palace Building Group Drone Photography

Drone Photography for Housing and Land Integration Project in Taihe County, Anhui Province
## Typical Projects

- Remote sensing monitoring project of FAST electromagnetic wave quiet area radio facilities and construction
- Surveying of Land Changes Investigation and Remote Sensing Monitoring in Tongliao City in 2018 (In-house work)
- Aerial Photogrammetry Project of Langfang Urban-rural Planning Bureau Sub-item 1: 500DLG Production
- DOM Production of Registration and Certification Project for Rural Land Contracting Management Right in Yongdeng County
- 3D Data Modeling Technology Service Project of Changji Inclined Photography
Engineering Geological Surveying

Digsur engineering geological surveying provides comprehensive geological surveying and research services for engineering geological conditions in construction areas. The surveying content, scale and method depend on the available data, construction scale, construction nature and geological conditions in the construction area. Through the surveying, the engineering geology of the construction area is evaluated to provide the necessary engineering geological data for the planning, design and construction of the engineering construction.

**Advantages:**

Digsur owns engineering survey qualifications and professional geological exploration teams. It has presided over the completion of the survey of the distribution room of the Guanzhuang Campus of the University of Science and Technology Beijing, Liangjiadian Dongyi Road, Liangjiadian Dongyi Street Road, and municipal supporting projects (roads and pipelines). A number of key projects such as the third-phase survey project of Wenyuhe Park in Houshayu Town, and the radar test report of Xindian East Road (Youyi Road).
Thanks!