

*Profile*  
**Our**



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# INTRODUCTION

G&ES stands for quality of service to clients and professional satisfaction for the employees.

G&ES was established in 2003 by a chartered land surveyor and is a full service Engineering Consulting and Land Surveying firm in Pakistan. It is currently being run by a graduate Civil Engineer from USA with over 27 years of project management and design experience of projects in USA and Pakistan.

We provide a broad spectrum of services in:

|  |                              |
|--|------------------------------|
| Geomatics                              | Civil Engineering Consulting |
| Project Management                     | Architectural Design         |
| Highway/Road Design                    | Computer Aided Drafting      |
| Airport Engineering                    | Geotechnical Engineering     |
| GIS                                    | Photogrammetry               |
| Housing Schemes                        | Construction Supervision     |
| Facade Mapping of historical buildings |                              |
| Drone imagery, Mapping and Videography |                              |
| Interior Design                        |                              |

We are equipped with modern surveying and mapping equipment, bathymetric equipment, GPS (in RTK mode), DJI Phantom 4 Pro drone, handheld GPS etc.



G&ES has completed over **335 projects** of various nature and complexity in our **20 year history**.

We have provided services in the following disciplines:

## **Geomatics**

- Land & Hydrographic Sureying
- Terrestrial mapping of architectural / historical buildings sites
- Mapping through Terrestrial Photogrammetry
- Engineering and Construction Projects Surveying & Mapping
- Dimensional Control on mechanical installations
- Cadastral Surveying
- Deformation monitoring of structures
- GPS Control Surveys
- GIS related services
- Aerial Surveys using drone

## **Engineering Consulting**

- Roads, Highways and Railways
- Airport Engineering
- Power Transmission Line & Grid Stations
- Hydropower Projects
- Thermal Power Plants
- Housing Colonies/Societies, Golf Courses
- Construction Management Services

## **Architectural, Structural Design & Geotechnical Engineering**

G&ES has worked on the design of various architectural, structural engineering, geotechnical engineering, pile foundation, drainage and other civil engineering projects.

## **Computer Aided Drafting (CAD)**

G&ES does all its drafting in-house and also provides off-shore CAD services to clients outside Pakistan.

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G-176, Model Town,  
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**Year of Establishment:**

March 2003

**Status of Incorporation:**

Private Limited

**National Income Tax Number:**

1759429-4

**Memberships:**

Pakistan Engineering Council (CONSULT 1486)

Survey of Pakistan (SOP/19004)

Lahore Chamber of Commerce & Industry (55416-C)



# ABOUT US

Building upon our success, G&ES skills are being utilized both domestically as well as overseas. G&ES has worked on projects in Pakistan, Saudi Arabia, U.A.E. and Afghanistan.

Some of the firms which have benefitted from our services include:



Water and Power Development Authority



سول ایوی ایشن اتھارٹی

FICHTNER



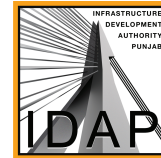
ASSOCIATED  
CONSULTING  
ENGINEERS



دیوا  
dewa



saman  
Saman Corp.



National Transmission &  
Despatch Company (NTDC)



شركة الرياض الجيوتقنيكية والاساسات  
RYADH GEOTECHNIQUE & FOUNDATIONS CO.



CONSULTANTS . LABORATORY & FIELD TESTING . ANALYSIS



DEFENCE  
RAYA



Our goal is to provide  
**"Value and Quality"**

to our clients by performing superior, professional design,  
planning, and surveying services on every project we undertake.



# PROJECT LOCATIONS

Project Locations within Pakistan, Afghanistan & UAE



We have worked on engineering projects of varying complexity and nature in Pakistan, Afghanistan, Saudi Arabia and UAE. Some of our project locations are shown above and listed below:

- Mianwali, Punjab (Pakistan)
- Kallar Kahar, Punjab (Pakistan)
- Dharki, Sindh (Pakistan)
- Lahore, Punjab (Pakistan)
- Kohat, KPK (Pakistan)
- Swat, KPK (Pakistan)
- Gulpur, AJK (Pakistan)
- Gwadar, Baluchistan (Pakistan)
- Islamabad, Federal Capital (Pakistan)
- Chaman-Kandhar (Afghanistan)
- Kandhar Province (Afghanistan)
- Herat (Afghanistan)
- Swat District, KPK (Pakistan)
- Rahim Yar Khan, Punjab (Pakistan)
- Peshawar, KPK (Pakistan)
- Raiwind, Punjab (Pakistan)
- Sialkot, Punjab (Pakistan)
- Mangla Dam, AJK (Pakistan)
- Poonch River, AJK (Pakistan)
- Neelum River, AJK (Pakistan)
- District Chakwal, Punjab (Pakistan)
- Port Qasim, Sindh (Pakistan)
- Manga Mandi, Punjab (Pakistan)
- Jhand, Punjab (Pakistan)

# List of Projects



## HYDROPOWER PROJECTS

| No. | Name of Project & Services Provided  | Year | Location                 | Client Name              | Remarks   |
|-----|--|------|--------------------------|--------------------------|-----------|
| 1   | <b>Jinnah Hydropower Project</b> <ul style="list-style-type: none"> <li>• H &amp; V Control establishment- 20 km</li> <li>• Topographic Survey 17 Km<sup>2</sup></li> <li>• Bathymetric Survey of Indus River – 72 sections</li> <li>• Mapping at 1:1000 &amp; 1:2000</li> </ul>   | 2004 | Jinnah Barrage, Mianwali | Dong Fang - China        | Completed |
| 2   | <b>Ujala Hydropower Project</b> <ul style="list-style-type: none"> <li>• Weir site survey – 5 acres</li> <li>• Power Channel Survey – 8.5 km</li> <li>• Penstock route survey – 1.5 km</li> <li>• Power House site Topo Survey – 4.5 acres</li> <li>• Tail Race Survey – 500 m</li> </ul>  | 2004 | AJ&K                     | PES - Lahore             | Completed |
| 3   | <b>Khokhara Hydrel Project</b> <ul style="list-style-type: none"> <li>• Topo survey of site – 150 acres</li> </ul>   | 2004 | Punjab                   | PES - Lahore             | Completed |
| 4   | <b>Munda (Mahmand) Multipurpose Dam Project</b> <ul style="list-style-type: none"> <li>• H &amp; V Control establishment – 10 km</li> <li>• H &amp; V Control establishment in the Reservoir Area – 50 km</li> <li>• Main Dam Topographic Survey – 4.5 Km<sup>2</sup>.</li> <li>• D/S of main Dam to the Munda Head Works – Topo Survey – 3.5 Km<sup>2</sup></li> <li>• Reservoir Map Sheets conversion to soft copy format – 40 sheets</li> </ul> | 2004 | NWFP (KPK)               | AMZO Corporation- Lahore | Completed |
| 5   | <b>Khokhara Hydrel Project</b> <ul style="list-style-type: none"> <li>• Setting out Power House and other structures</li> </ul>  | 2005 | Punjab                   | PES - Lahore             | Completed |
| 6   | <b>Lower Bari Doab Canal Hydro (Sahiwal)</b> <ul style="list-style-type: none"> <li>• Survey Control (H&amp;V)</li> <li>• Topographic Survey</li> <li>• Canal Bathymetric Survey</li> </ul>  | 2005 | Punjab                   | PES - Lahore             | Completed |





|    |   |      |                    |   |           |
|----|---|------|--------------------|---|-----------|
| 7  | <b>Gabral Kalam Hydropower Project</b> <ul style="list-style-type: none"> <li>• GPS Control verification – 9 points</li> <li>• Additional H &amp; V Control establishment – 20 km</li> <li>• Topographic Survey – 1:500 Power House &amp; Surge Tank Area – 200 hectares</li> <li>• Weir Site - 128 hectares</li> <li>• Reservoir Area – 360 hectares</li> <li>• Access Adit – 40 hectares</li> <li>• Workers Camp site – 1:100 70 hectares</li> <li>• Rover Cross sections – 13</li> </ul> | 2005 | NWFP (KPK)         | Swat Hydro Power – Lahore<br>Fichtner GmbH<br>Germany<br>PES - Lahore | Completed |
| 8  | <b>Patrind Hydro Power Project</b> <ul style="list-style-type: none"> <li>• Establishment of H&amp;V Control network – 18 km</li> <li>• Topographic Survey Reservoir area -1:1000 – 2 Km<sup>2</sup></li> <li>• Weir Site – 0.6 Km<sup>2</sup></li> <li>• Tunnel Area – 2 km<sup>2</sup></li> <li>• Power House area – 1.5 km<sup>2</sup></li> <li>• River Cross Sections – 11</li> <li>• Permanent Survey Pillars – 5</li> </ul>   | 2006 | AJ&K+<br>NWFP(KPK) | ETA & PES –<br>Lahore   | Completed |
| 9  | <b>Ghabir Dam Proejct</b> <ul style="list-style-type: none"> <li>• Topographic Survey – 1:1000 – 300 acres</li> <li>• Command area profiles survey – 15 km</li> </ul>   | 2006 | Punjab             | PES - Lahore  | Completed |
| 10 | <b>DASU Hydro Power Project</b> <ul style="list-style-type: none"> <li>• Review of WAPDA Topo Survey</li> <li>• Establish for WAPDA surveyors field survey procedures and activities</li> </ul>   | 2006 | NWFP (KPK)         | NEAC & NESPAK -<br>Lahore   | Completed |
| 11 | <b>SOAN Valley – 10 Small Dams</b> <ul style="list-style-type: none"> <li>• Topographic survey of Dam sites</li> </ul>  | 2006 | Punjab             | PPAF - Islamabad  | Completed |



|    |   |      |                  |   |           |
|----|---|------|------------------|---|-----------|
| 12 | <b>Suki Kinari Hydro Power (655 MW) Project</b> <ul style="list-style-type: none"> <li>• GPS Control establishment</li> <li>• Topo Survey of 2 Dam Sites (Lower S. Kinari &amp; Site-4)</li> <li>• Power House site</li> <li>• River cross sections - 84</li> </ul>   | 2006 | NWFP (KPK)       | S.K. Hydro - Lahore                                     | Completed |
| 13 | <b>Keyal Khwar Hydro Power Project</b> <ul style="list-style-type: none"> <li>• Survey Control establishment (H&amp;V) – 12 km</li> <li>• Zeta Weir Site Topo Survey &amp; Reservoir survey – 17 hectares</li> <li>• Tunnel alignment survey – 8 km</li> <li>• Power House &amp; Surge Tank Topo Survey – 82 hectares</li> <li>• Access road to Zeta Site survey</li> </ul> | 2007 | NWFP (KPK)       | Keyal Khwar Consultants – Lahore                        | Completed |
| 14 | <b>Dasu Hydro Power Project</b> <ul style="list-style-type: none"> <li>• Topographic Survey of Site No. 5 &amp; 6 – 1300 acres</li> <li>• Misc. Topo Survey and setting out bore hole and other structures locations</li> </ul>   | 2007 | NWFP (KPK)       | WAPDA – Peshawar & Dasu Hydro Power Consultants- Lahore | Completed |
| 15 | <b>Golan Gol Hydropower Project</b> <ul style="list-style-type: none"> <li>• Advisory services of A.W.Mir</li> </ul>  | 2007 | NWFP (KPK)       | PES - Lahore  | Completed |
| 16 | <b>Patrind Hydropower Project</b> <ul style="list-style-type: none"> <li>• Establishment of H&amp;V Control</li> <li>• Topographic survey of site- 667.5 hectares</li> <li>• Khunar River Cross sections – 11</li> <li>• Jhelum River Cross sections- 7</li> </ul>  | 2009 | NWFP (KPK) & AJK | SAMAN –S. Korea   | Completed |
| 17 | <b>Kheyal Khwar Hydropower Project</b> <ul style="list-style-type: none"> <li>• H&amp;V Control establishment</li> <li>• Access road to site – topo survey – 6 km</li> </ul>  | 2010 | NWFP (KPK)       | Keyal Khwar Consultants – Lahore                        | Completed |
| 18 | <b>Ghazi Barotha Baseline Inspection</b> <ul style="list-style-type: none"> <li>• Review of movement monitoring methodology</li> <li>• Review of movement monitoring data collection and processing.</li> <li>• Results analysis and report</li> </ul>  | 2010 | NWFP & Punjab    | Technology Resources Development- Lahore                | Completed |



|    |  |      |                  |  |           |
|----|--|------|------------------|--|-----------|
| 19 | <p><b>3<sup>rd</sup> Periodic Inspection – Warsak Dam</b></p> <ul style="list-style-type: none"> <li>• Review of existing methodology</li> <li>• Review of movement monitoring data collection and processing of results</li> <li>• Results analysis and presentation.</li> </ul> <p>Areas of Interest:</p> <ul style="list-style-type: none"> <li>○ Barrage Structure</li> <li>○ Power Channel</li> <li>○ Power House</li> <li>○ Embankments</li> </ul>   | 2010 | NWFP (KPK)       | Technology Resources Development - Lahore                    | Completed |
| 20 | <p><b>Shagarthang Hydropower Project</b></p> <ul style="list-style-type: none"> <li>• Establishment of survey control (H&amp;V)- 5 stations</li> <li>• Topographic survey of structures location</li> <li>• Access road – 28 km</li> </ul>   | 2011 | Gilgit-Baltistan | PES - Lahore   | Completed |
| 21 | <p><b>Ashkot Hydropower Project</b></p> <ul style="list-style-type: none"> <li>• H&amp;V Control establishment – 20 km</li> <li>• Topographic Survey of: <ul style="list-style-type: none"> <li>○ Weir Site – 1 36 hectares</li> <li>○ Weir Site – 2 40 hectares</li> <li>○ Weir Site – 3 15 hectares</li> <li>○ Power House Site – 20 hectares</li> </ul> </li> <li>• River Cross Sections: <ul style="list-style-type: none"> <li>○ Weir Site – 1 14 No.</li> <li>○ Weir Site – 2 14 No.</li> <li>○ Weir Site – 3 12 No.</li> <li>○ Power House Site - 10 No.</li> <li>○ Tunnel alignment survey using Satellite Stereo Imagery + establishment of GCPs - 265 hectares.</li> </ul> </li> </ul> | 2013 | AJ&K             | Ashkot Power Co. – Islamabad<br>Consultants:<br>PES - Lahore | Completed |
| 22 | <p><b>Gulpur hydropower Project</b></p> <ul style="list-style-type: none"> <li>• Establishment of H&amp;V Control – 20 km</li> <li>• Topographic Survey of: <ul style="list-style-type: none"> <li>○ Weir Site – 100 hec.</li> <li>○ Intake area – 100 hec.</li> <li>○ Central area – 75 hec.</li> <li>○ Power House area – 50 hec.</li> </ul> </li> </ul>   | 2013 | AJ&K             | Sunyoung Engineering – South Korea                           | Completed |



|    |   |      |        |                                   |           |
|----|---|------|--------|-----------------------------------|-----------|
|    | <ul style="list-style-type: none"> <li>• River Cross sections (Bathymetric Survey) :             <ul style="list-style-type: none"> <li>○ Poonch river – 48</li> <li>○ Ban NAllah – 21</li> <li>○ Reservoir area - 11</li> </ul> </li> </ul>  |      |        |                                   |           |
| 23 | <b>Patrind Hydropower Project</b> <ul style="list-style-type: none"> <li>• Establishment of H&amp;V Control – 10 km</li> <li>• Topographic Survey of:             <ul style="list-style-type: none"> <li>○ Power House site 24 hec.</li> <li>○ Land Slide area – different pockets.</li> </ul> </li> </ul>  | 2014 | AJ&K   | DAEWOO E & C – S. Korea           | Completed |
| 24 | <b>Azad Pattan Hydropower Project</b> <ul style="list-style-type: none"> <li>• Survey establishment via GPS</li> </ul>  | 2015 | AJ&K   | Azad Pattan Energy Co.- Islamabad | Completed |
| 25 | <b>Gugera Hydropower Project (On Gugera Canal)</b> <ul style="list-style-type: none"> <li>• Topographic survey of the Canal bed and embankment from RD 212 to RD 222.</li> </ul>  | 2017 | Punjab | Gugera Hydropower Co. - Lahore    | Completed |
| 26 | <b>Sharmai Hydropower Project (Upper Dir District)</b> <ul style="list-style-type: none"> <li>• Establishment of Survey control H&amp;V – 10 stations Dam sites area an Power House area</li> <li>• Topographic Survey of Dam Site No. 1 and 2 + Power House area – 200 hectares</li> <li>• Bathymetric Survey of the river – 27 x-sections</li> <li>• GCPs for mapping from stereo imagery – 21 No.</li> </ul> | 2017 | KPK    | Sapphire Electric Company-Lahore  | Completed |
| 27 | <b>Balakot Hydropower Project</b> <ul style="list-style-type: none"> <li>• Topographic survey of tailrace area</li> <li>• River cross sections</li> </ul>   | 2018 | KPK    | AQUSALOGUS                        | Completed |



## AIRPORTS PROJECTS

| No. | Name of Project & Services Provided   | Year | Location    | Client Name                                     | Remarks   |
|-----|---|------|-------------|---|-----------|
| 1   | <b>Gwadar International Airport (NEW)</b> <ul style="list-style-type: none"><li>• Establishment of H &amp; V Control</li><li>• Topographic Survey – 4,300 acres</li><li>• Boundary demarcation and installation of 6 ft high 6 inches dia RCC Pipes at 40 m interval – 520 pipes.</li></ul> | 2008 | Balochistan | Civil Aviation Authority – CAA - Karachi        | Completed |
| 2   | <b>Peshawar International Airport</b> <ul style="list-style-type: none"><li>• Establishment of permanent survey control.</li><li>• Topographic survey for redevelopment – 55 acres</li></ul>  | 2008 | NWFP (KPK)  | Civil Aviation Authority – CAA - Karachi        | Completed |
| 3   | <b>Sialkot International Airport</b> <ul style="list-style-type: none"><li>• As Built Survey of landside and airside of the airport</li></ul>   | 2019 | Punjab      | Sialkot International Airport Limited - Sialkot | Completed |



## Power Transmission Lines Projects

| No. | Name of Project & Services Provided  | Year | Location     | Client Name                             | Remarks   |
|-----|--|------|--------------|---|-----------|
| 1   | <b>Muzafargarh – Gati Power Line</b> <ul style="list-style-type: none"> <li>Route Strip Survey – 140 km</li> <li>Towers Spotting</li> </ul>  | 2006 | Punjab       | CCC - China                             | Completed |
| 2   | <b>Muzafargarh – Gati (Faisalabad)</b> <ul style="list-style-type: none"> <li>500 m kV Grid Station Extension</li> </ul>   | 2007 | AJ&K         | CCC - CHINA                             | Completed |
| 3   | <b>Al-Anin Power Line Project</b> <ul style="list-style-type: none"> <li>Route survey &amp; Towers Spotting – 23 km</li> </ul>   | 2006 | UAE          | Dubai Electric Supply Co. - UAE         | Completed |
| 4   | <b>Jinnah Hydropower Project</b> <ul style="list-style-type: none"> <li>Power Project to Mari Grid station – 7.2 km</li> </ul>   | 2008 | NWFP (KPK)   | Alamdar Engineering (Pvt.) Ltd., Lahore | Completed |
| 5   | <b>Neelum-Jhelum Hydropower Project</b> <ul style="list-style-type: none"> <li>NJHPP to Rawat – 1<sup>st</sup> line</li> <li>NJHPP to Ghakar Sub Station – 2<sup>nd</sup> Line</li> <li>335 km</li> </ul> Joint Venture with BARQAAB | 2008 | AJ&K Punjab  | NTDC (WAPDA) - Lahore                   | Completed |
| 6   | <b>Dasu-Islamabad 765 kV Power Line -290 km</b> <ul style="list-style-type: none"> <li>Route Survey</li> <li>Assistance to Environmental team.</li> </ul>  | 2015 | KPK & Punjab | KEPCO – EnMasse – Lahore                | Completed |
| 7   | <b>Hub-Uthal-Belar Power Line – 132 KV</b> <ul style="list-style-type: none"> <li>Route Survey</li> </ul>  | 2021 | Baluchistan  | Barqaab                                 | Completed |
| 8   | <b>Nowshera-Swabi T/L Route Survey</b> <ul style="list-style-type: none"> <li>Route survey &amp; Towers Spotting – 58 km</li> </ul>  | 2022 | KPK          | EnMasse                                 | Completed |
| 9   | <b>T/L Route Survey</b> <ul style="list-style-type: none"> <li>Route survey &amp; Towers Spotting -</li> </ul>   | 2022 | KPK          | EnMasse                                 | Completed |



## AREA DEVELOPMENT / HOUSING SCHEMES / GOLF COURSE CADASTRAL & TOPOGRAPHIC-AS BUILT SURVEY PROJECTS

| No. | Name of Project & Services Provided  | Year | Location    | Client Name   | Remarks   |
|-----|--|------|-------------|---|-----------|
| 1   | <b>Sialkot: Topo survey of Building Plot</b><br>• Area = 16 kanals                                     | 2004 | Sialkot     | Ummar Farooq,<br>Ardhitect                            | Completed |
| 2   | <b>Muzaffarabad (AJK) Public Park Project</b><br>• Topographic Survey                                  | 2004 | AJ&K        | Geo Research,<br>Lahore                               | Completed |
| 3   | <b>Mirpur (AJK) Public Park Project</b><br>• Topographic Survey  | 2004 | AJ&K        | Geo Research,<br>Lahore                               | Completed |
| 4   | <b>Mahmood Buti, Lahore Project</b><br>• Solid Waste Management Project (600 kanal)                    | 2004 | Punjab      | Pakistan<br>Engineering<br>Services (PES) -<br>Lahore | Completed |
| 5   | <b>16 Kanal Plot Survey (Gulberg)</b><br>• Topographic Survey of 16+ Kanal property                    | 2004 | Punjab      | E.A. Karachi  | Completed |
| 6   | <b>Clariant Factory Boundary Survey, Lahore</b><br>• Area = 62 kanal                                   | 2004 | Punjab      | Sadat Imran<br>Associates,<br>Lahore                  | Completed |
| 7   | <b>200 Acres Topo Survey, Okara</b><br>• Topo survey of 200 Acres                                      | 2005 | Punjab      | NESPAK - A & P<br>Division                            | Completed |
| 8   | <b>Topographic Survey of Housing Society in Gwadar</b><br>• Area = 130 Acres                           | 2005 | Balochistan | Shagufta &<br>Munir Associates                        | Completed |
| 9   | <b>Golden Lake, Gwadar-Topo Survey</b><br>• Area = 30 Acres  | 2005 | Balochistan | Shagufta &<br>Munir Associates                        | Completed |
| 10  | <b>Dubai City,Gwadar- Topo Survey</b><br>• Area = 80 Acres   | 2005 | Balochistan | Shagufta &<br>Munir Associates                        | Completed |
| 11  | <b>MCC,Gwadar-Topo Survey</b><br>• Area = 40 Acres   | 2005 | Balochistan | Shagufta &<br>Munir Associates                        | Completed |
| 12  | <b>Belgium School, Gwadar-Topo Survey</b><br>• Area = 2 Acres  | 2005 | Balochistan | Shagufta &<br>Munir Associates                        | Completed |
| 13  | <b>Defense Housing Authority Islamabad – Topo Survey</b>   | 2005 | Islamabad   | Gandhara<br>Consultants                               | Completed |
| 14  | <b>Topographic Survey for Hatchery Building, Lahore</b><br>• Area = 4 Acres                            | 2005 | Punjab      | Kashmir Poultry<br>Breeders Pvt. Ltd                  | Completed |
| 15  | <b>DHA-Phase II Rawalpindi-40 acres</b><br>• Verification of Topo Survey<br>• Development of Xsections | 2005 | Punjab      | Al Ghuriar Giga,<br>Defelopers                        | Completed |



|    |   |      |        |                                       |           |
|----|---|------|--------|---------------------------------------|-----------|
|    | from existing topo survey data  |      |        |                                       |           |
| 16 | <b>Topo Survey Bilal Market Ravi Road</b><br>• Area = 7.8 Acres   | 2005 | Punjab | NESPAK - A & P Division               | Completed |
| 17 | <b>Topo Survey 2 Plots of Sargodha University</b><br>• Area = 100 Acres   | 2005 | Punjab | Engineering Associates Karachi        | Completed |
| 18 | <b>Topo Survey- Makro-Habib Site Model Town Link Road, Lahore</b><br>• Area = 86 kanals                                     | 2006 | Punjab | NESPAK - Karachi                      | Completed |
| 19 | <b>DHA Phase IV- Golf Course Extn.</b><br>• Area = 127 Acres  | 2006 | Punjab | Defense Raya Golf & Country Club      | Completed |
| 20 | <b>Makro-Habib Site Bedian Rd. Topo Survey</b><br>• Area = 64 kanals  | 2006 | Punjab | NESPAK - Karachi                      | Completed |
| 21 | <b>Chitral Lines Topo Survey, Lahore Cantt</b><br>• Area = 90 kanals  | 2006 | Punjab | Riaz Ur Rehman & Associates           | Completed |
| 22 | <b>As Built Outline Survey Office Bldg.</b><br>• Area = 4 acres   | 2006 |        | AZGARD9 Ltd.                          | Completed |
| 23 | <b>Topo Survey of PC Hotel - Lahore</b>   | 2006 | Punjab | Building Standards, Lahore            | Completed |
| 24 | <b>Dream Resorts Site (Topo Survey)</b><br>• Area = 200 Acres   | 2006 | Punjab | Dream Resort Pvt. Ltd., Karachi       | Completed |
| 25 | <b>Maryam Town - Raiwind (Near Lahore) – Topo Survey</b><br>• Area = 30 Acres   | 2006 | Punjab | Maryam Town Developers, Lahore        | Completed |
| 26 | <b>Ghaus Farms Housing Scheme Raiwind (Near Lahore) – Topo Survey</b><br>• Area = 70 Acres                                  | 2007 | Punjab | Hameed Saeed-Model Town, Lahore       | Completed |
| 27 | <b>Multan Medical College Topographic Survey of Site</b><br>• Area = 10 Acres   | 2007 | Punjab | Shagufa-Munir Architects- Lahore      | Completed |
| 28 | <b>Durab Lake Resort-Chakwal Topographic Survey of Site</b><br>• Area = 400 Acres   | 2007 | Punjab | PACE (Pakistan) Ltd. Lahore           | Completed |
| 29 | <b>Survey of Punjab Cooperative Housing Society</b><br>• Survey of Houses, Roads, Infrastructure etc.<br>• Area = 220 Acres | 2008 | Punjab | Johar Development Consultants, Lahore | Completed |
| 30 | <b>As built survey of Lake City Raiwind Road, Lahore</b>  | 2008 | Punjab | The Lake City Holdings Private        | Completed |





|    |  |      |        |  |           |
|----|--|------|--------|--|-----------|
|    | <ul style="list-style-type: none"> <li>Area = 100 Acres</li> </ul>   |      |        | Limited - Lahore   |           |
| 31 | <b>GC University New Campus at Kala Shah Kaku</b> <ul style="list-style-type: none"> <li>Area = 363 Acres</li> </ul>   | 2009 | Punjab | ACE Architectural & Town Planning Services (Pvt.) Ltd., Lahore | Completed |
| 32 | <b>Ashiana Housing Scheme</b> <ul style="list-style-type: none"> <li>Survey Control Establishment</li> <li>Topographic Survey &amp; Mapping</li> <li>Area = 92 Hectares</li> <li>Borehole Locations</li> <li>2.15 km Roads</li> </ul>      | 2012 | Punjab | ECSP - Lahore  | Completed |
| 33 | <b>Topo Survey Dera Rakh Chahal – Lahore</b> <ul style="list-style-type: none"> <li>Survey Control Establishment</li> <li>Topographic Survey &amp; mapping (Area = 800 Acres)</li> <li>Access road route survey (8 km of roads)</li> </ul> | 2013 | Punjab | ECSP - Lahore  | Completed |
| 34 | <b>Oasis Resorts - Manga Mandi</b> <ul style="list-style-type: none"> <li>Topographic Survey &amp; Mapping (Area = 773 Acres)</li> </ul>   | 2015 | Punjab | Dream Resorts Pvt. Ltd., Karachi                               | Completed |
| 35 | <b>Journalists Housing Society - Harbanspura, Lahore</b> <ul style="list-style-type: none"> <li>Topographic Survey &amp; mapping</li> </ul>  |      | Punjab | Information Department, Govt. of Punjab                        | Completed |
| 36 | <b>Solar Power Plant, Kallar Kahar</b> <ul style="list-style-type: none"> <li>Topographic Survey &amp; Mapping (Area = 330 Acres)</li> </ul>   | 2015 | Punjab | Siddique Sons (Pvt) Limited, Karachi                           | Completed |
| 37 | <b>Dubai School, Lahore</b> <ul style="list-style-type: none"> <li>Topographic Survey &amp; Mapping (Area = 11.5 kanals)</li> </ul>  | 2015 | Punjab | SOS Children's Village, Lahore                                 | Completed |
| 38 | <b>Daanish School - Jhand (Attock District)</b> <ul style="list-style-type: none"> <li>Topographic Survey &amp; Mapping</li> </ul>   | 2015 | Punjab | ECSP - Lahore  | Completed |
| 39 | <b>Topographic Survey of Phoolnagar Site</b> <ul style="list-style-type: none"> <li>Area = 8 kanals</li> </ul>   | 2016 | Punjab | Babar Latif (Seven Seas Interiors)                             | Completed |



|    |  |      |             |   |           |
|----|--|------|-------------|---|-----------|
| 40 | <b>Upgradation of DHQ Hospital to Teaching Hospital - Sialkot</b> <ul style="list-style-type: none"> <li>Topographic Survey (Area = 332,338 ft<sup>2</sup>)</li> </ul>                                   | 2016 | Punjab      | Infrastructure Development Authority Punjab (IDAP)                    | Completed |
| 41 | <b>Topographic Survey of additional property at Pakistan Kidney &amp; Liver Institute (Bedian Road)</b> <ul style="list-style-type: none"> <li>Area = 23 kanals</li> </ul>                               | 2016 | Punjab      | Infrastructure Development Authority Punjab (IDAP)                    | Completed |
| 42 | <b>Topographic Survey of 10 Acres Plot in Renala Khurd Bypass</b> <ul style="list-style-type: none"> <li>Area = 10 Acres</li> </ul>  | 2016 | Punjab      | Qaiser Nawaz Janjua   | Completed |
| 43 | <b>Topographic Survey of Ocean Marina - Gwadar</b> <ul style="list-style-type: none"> <li>Area = 234 Acres</li> </ul>  | 2017 | Balochistan | Siddiqsons Ltd & Y.B. Pakistan Ltd, Karachi                           | Completed |
| 44 | <b>Topographic Survey of Gultex (Pvt) Ltd</b> <ul style="list-style-type: none"> <li>Area = 42 Acres</li> </ul>  | 2017 | Punjab      | Gultex (Pvt) Ltd  | Completed |
| 45 | <b>Topographic Survey &amp; As-Built Building Plans of Total Parco Fuel Pump in Johar Town</b> <ul style="list-style-type: none"> <li>As Built plans of facility</li> <li>Topo survey of site</li> </ul> | 2017 | Punjab      | Total PARCO, Lahore   | Completed |
| 46 | <b>Topographic Survey of H&amp;A Poultry Farm</b> <ul style="list-style-type: none"> <li>As Built plans of facility</li> <li>Topo survey of site</li> </ul>  | 2017 | Punjab      | H&A Poultry Farm, Lahore  | Completed |
| 47 | <b>CAD Mapping of 20 THQ Hospitals in Lahore District</b> <ul style="list-style-type: none"> <li>As built architectural plans of hospitals</li> <li>Topo survey of hospitals property</li> </ul>         | 2017 | Punjab      | Primary & Secondary Healthcare Dept. Project Management Unit - Lahore | Completed |
| 48 | <b>Topographic Survey of Kamran Steel Rerolling Mills - Sheikhpura</b> <ul style="list-style-type: none"> <li>Area =</li> </ul>  | 2017 | Punjab      | Mian Ashraf   | Completed |
| 49 | <b>Topographic Survey of AFCO Steel Industries - Sheikhpura</b> <ul style="list-style-type: none"> <li>Area = 835,045 ft<sup>2</sup></li> </ul>  | 2017 | Punjab      | Hammad Azhar  | Completed |
| 50 | <b>Topographic Survey of Lahore Gymkhana Club</b> <ul style="list-style-type: none"> <li>Area = 4,956,455 ft<sup>2</sup></li> </ul>  | 2017 | Punjab      | Lahore Gymkhana Club  | Completed |
| 51 | <b>Topographic Survey &amp; As-Built Plans for Badami Bagh Workshop</b> <ul style="list-style-type: none"> <li>Area = 2578 ft<sup>2</sup></li> </ul>   | 2018 | Punjab      | Lahore Waste Management Company-Lahore                                | Completed |
| 52 | <b>Topographic Survey of site in Eimenabad</b> <ul style="list-style-type: none"> <li>Area = 10 Acres</li> </ul>   | 2018 | Punjab      | Hasan & Hasan Associates  | Completed |



|    |   |      |                     |  |                                    |
|----|---|------|---------------------|--|------------------------------------|
| 53 | <b>Topographic Survey of 65 Babar Block, New Garden Town, Lahore</b><br>• Area = 37,997 ft <sup>2</sup>   | 2018 | Punjab              | Dawood Raees                               | Completed                          |
| 54 | <b>Topographic Survey of property Khajot Development</b><br>• Area = 600 kanals   | 2018 | Punjab              | Urban Edge Developers (Pvt) Ltd            | Project suspended/<br>discontinued |
| 55 | <b>Topographic Survey of G-56 Model Town, Lahore</b><br>• Area = 2 kanals   | 2018 | Punjab              | Shams Bari/Syed Osman Ali                  | Completed                          |
| 56 | <b>Investigation of Ownership status of Agricultural Land in Toba Tek Singh - Punjab</b>  | 2018 | Punjab              | Angela Craig, Solicitors – Scotland – U.K. | Completed                          |
| 57 | <b>Fazia Housing Scheme (9,500 kanals) at Kamra – Dist Attock</b><br>• Verification of the total area in possession and checking topo survey carried out by others. | 2018 | Punjab              | PAF – Aviation City – Kamra                | Completed                          |
| 58 | <b>Khaadi Stores – Topographic Survey of proposed sites in Sialkot, Hyderabad, Jhelum, Khanewal</b>   | 2018 | Punjab              | Khaadi Fabric Stores                       | Completed                          |
| 59 | <b>Khaadi Stores – Topographic Survey of proposed sites in, Gujrunwala, Bahawalpur, Sargodha</b>  | 2019 | Punjab              | Khaadi Fabric Stores                       | Completed                          |
| 60 | <b>Topographic Survey of Ice Block Factory – Sialkot Cantt</b>  | 2019 | Punjab              |  | Completed                          |
| 61 | <b>Topographic Survey of Car Show Room- Ghazi Road Lahore</b>   | 2019 | Punjab              | Riaz ur Rehman Architects                  | Completed                          |
| 62 | <b>Topographic Survey for LPG Bottling Plant, Lachi (KPK)</b>   | 2019 | District Kohat, KPK | Dynamic Engineering & Automation           | Completed                          |
| 63 | <b>Topographic Survey and property area calculation for 39A Zafar Ali Road, Lahore</b><br>• Area = 4.54 kanals  | 2019 | Punjab              | Raza Ali Munir                             | Completed                          |
| 64 | <b>Topographic Survey for property at 4H Jail Road, Lahore</b><br>• Area = 8.11 kanal   | 2019 | Punjab              | Sky Gardens, Lahore                        | Completed                          |
| 65 | <b>Topographic Survey of property opposite Gujjumata Metro Bus Station</b><br>• Area = 504,486 ft <sup>2</sup>  | 2019 | Punjab              | Damaan Developers                          | Completed                          |



|    |   |      |                    |                 |             |
|----|---|------|--------------------|-----------------|-------------|
| 66 | <b>Topographic Survey of area inside factory near Halloki Village</b>   | 2019 | Punjab             | Babar Latif     | Completed   |
| 67 | <b>Property Demarcation of plot in Nisar Colony, Cantt</b>  | 2019 | Punjab             | Ms. Syed Naveen | Completed   |
| 68 | <b>Topographic Survey of sites for proposed holiday resorts in Gilgit and Phander</b><br><ul style="list-style-type: none"> <li>• Gilgit Site Area = 30,441m<sup>2</sup></li> <li>• Phander Site Area = 188.812m<sup>2</sup></li> </ul> | 2019 | Gilgit-Baltistan   | Yousaf Jamal    | Completed   |
| 69 | <b>Topographic Survey and As-built Survey of 8Nos. Pedestrian Suspension Bridges in Swat</b>  | 2019 | Swat, KPK          | UNOPS           | Completed   |
| 70 | <b>Topographic Survey of property for proposed oil depot facility</b>   | 2019 | Sahiwal, Punjab    | Euro Oil        | Completed   |
| 71 | <b>Topographic Survey of property in DHA Phase 6 for proposed mixed development</b><br>Area = 450 kanals  | 2020 | Lahore             | PAL Group       | Completed   |
| 72 | <b>Topographic Survey of property for proposed oil depot facility</b>   | 2020 | Machike, Punjab    | Euro Oil        | Completed   |
| 73 | <b>Topographic Survey of property for proposed oil depot facility</b>   | 2021 | Daulatpur, Sindh   | Euro Oil        | Completed   |
| 74 | <b>Topographic Survey of 25 kanal property</b><br><ul style="list-style-type: none"> <li>• Area = 25 kanals</li> </ul>  | 2021 | Nathiagali, KPK    | Imran Zafar     | Completed   |
| 75 | <b>Topographic Survey of Zafar Habib property</b><br><ul style="list-style-type: none"> <li>• Area = 18.34 kanals</li> </ul>  | 2021 | Lahore, Punjab     | Zafar Habib     | Completed   |
| 76 | <b>Topographic Survey of Irfan Ahson property</b><br><ul style="list-style-type: none"> <li>• Area = 20 kanals</li> </ul>   | 2021 | Lahore, Punjab     | Irfan Ahson     | Completed   |
| 77 | <b>Topographic Survey of 9 Grid Stations in KPK and Punjab</b>  | 2021 | KPK & Punjab       | NTDC, Islamabad | In Progress |
| 78 | <b>Topographic Survey of property in Wasewewala</b><br><ul style="list-style-type: none"> <li>• Area = 4 Acres</li> </ul>   | 2021 | Wasewewala, Punjab | Zeeshan Wattoo  | Completed   |



|    |  |      |                    |                          |           |
|----|--|------|--------------------|--------------------------|-----------|
| 79 | <b>Topographic Survey of land on Raiwind Road</b> <ul style="list-style-type: none"> <li>Area = 30 kanals</li> </ul>   | 2021 | Lahore, Punjab     | Col. Mauman Asghar       | Completed |
| 80 | <b>Topographic Survey of HSA Factory</b> <ul style="list-style-type: none"> <li>Area = 4.5 Acres</li> </ul>  | 2021 | Lahore, Punjab     | Babar Latif              | Completed |
| 81 | <b>As-built Survey of Khaadi Store – Fortress Square Mall, Lahore</b> <ul style="list-style-type: none"> <li>Area = 9,000 sq. ft.</li> </ul>   | 2021 | Lahore, Punjab     | Khaadi                   | Completed |
| 82 | <b>As-built Survey of Khaadi Store – Rawalpindi Saddar</b> <ul style="list-style-type: none"> <li>Area = 23,000 sq. ft.</li> </ul>   | 2021 | Rawalpindi, Punjab | Khaadi                   | Completed |
| 83 | <b>Topographic Survey of land near Thokkar Niaz Baib, Lahore</b>   | 2021 | Lahore, Punjab     | Contrivers – Waqas Zafar | Completed |
| 84 | <b>Boundary Survey of Mian Property off Multan Road, Lahore</b>  | 2021 | Lahore, Punjab     | Ahmad Mian               | Completed |
| 85 | <b>As-built Survey of Khaadi Store – Y-Block, DHA, Lahore</b> <ul style="list-style-type: none"> <li>Area = 23,000 sq. ft.</li> </ul>  | 2021 | Lahore, Punjab     | Khaadi                   | Completed |
| 86 | <b>As-built Survey of Khaadi Store, Peshawar</b> <ul style="list-style-type: none"> <li>Area = 9,000 sq. ft.</li> </ul>  | 2021 | Lahore, Punjab     | Khaadi                   | Completed |
| 87 | <b>As-built Survey of DHQ Hospitals in KPK</b> <ul style="list-style-type: none"> <li>DHQ Hospital, Karak Area = 175,000 sq. ft.</li> <li>DHQ Hospital, Bannu Area = 144,843 sq. ft.</li> <li>DHQ Hospital, Kohat Area = 158,130 sq. ft.</li> <li>DHQ Hospital, Karak Area = 175,000 sq. ft.</li> <li>DHQ Hospital, Mardan Area = 174,592 sq. ft.</li> <li>DHQ Hospital, DI Khan Area = 300,000 sq. ft.</li> <li>DHQ Hospital, Tank Area = 87,000 sq. ft.</li> <li>DHQ Hospital, Lakki Marwat</li> </ul> | 2022 | KPK                | NESPAK/IDAP              | Completed |



|    |  |      |                       |                       |             |
|----|--|------|-----------------------|-----------------------|-------------|
|    | Area = 174,000 sq. ft.   |      |                       |                       |             |
| 88 | <b>Boundary Survey of DPS School,<br/>Model Town, Lahore</b>   | 2022 | Lahore                | DPS School            | Completed   |
| 89 | <b>Topographic Survey of Offto.pk<br/>Resort</b> <ul style="list-style-type: none"><li>• Area = 80 kanal</li></ul>   | 2022 | Skardu, GB            | Offto.pk              | Completed   |
| 90 | <b>Topographic Survey of farmland<br/>in Pathargarh, Punjab</b> <ul style="list-style-type: none"><li>• Area = 8 Acres</li></ul>   | 2022 | Pathargarh,<br>Punjab | Syed Fawad<br>Bokhari | Completed   |
| 91 | <b>Topo Survey and As Built Plans for<br/>Chaudry Rehmat Ali Hospital<br/>(Trust), Township, Lahore</b> <ul style="list-style-type: none"><li>• Area = 66 kanals</li></ul> | 2022 | Lahore                | Khalid Mahmood        | In progress |



## AS-BUILT SURVEY PROJECTS

| No. | Name of Project & Services Provided   | Year | Location | Client Name  | Remarks   |
|-----|---|------|----------|--|-----------|
| 1   | <b>As Built Outline Survey Office Bldg.</b> <ul style="list-style-type: none"> <li>• Area = 4 acres</li> </ul>  | 2006 |          | AZGARD9<br>Ltd.  | Completed |
| 2   | <b>CAD Mapping of THQ Hospitals in Lahore District</b> <ul style="list-style-type: none"> <li>• As built architectural plans of hospitals</li> <li>• Topo survey of hospitals property               <ul style="list-style-type: none"> <li>○ THQ Hospital Chunian (Kasur District, Lahore Division)</li> <li>○ THQ Hospital Pattoki (Kasur District, Lahore Division)</li> <li>○ THQ Hospital Shahkot (Nankana District, Lahore Division)</li> <li>○ THQ Hospital Sangla Hill (Nankana District, Lahore Division)</li> <li>○ THQ Hospital Haveli Lakha (Okara District, Lahore Division)</li> <li>○ THQ Hospital Depalpur (Okara District, Lahore Division)</li> <li>○ THQ Hospital Safdarabad (Sheikhupura District, Lahore Division)</li> <li>○ THQ Hospital Sharaqpur Sharif (Sheikhupura, District Lahore Division)</li> <li>○ THQ Hospital Muridke (Sheikhupura District, Lahore Division)</li> <li>○ Govt. Aziz Bibi Roshan Bheela (Kasur District, Lahore Division)</li> <li>○ GMH. Pathi Ground (District Lahore Lahore Division)</li> <li>○ 60 Bed Hospital Lidher Bedian Road Lahore (District Lahore, Lahore Division)</li> <li>○ THQ Hospital Raiwind (District Lahore, Lahore Division)</li> <li>○ GMH. Chohan Road Lahore (District Lahore, Lahore Division)</li> <li>○ Govt. Hospital Shahdara (District Lahore, Lahore Division)</li> <li>○ 130 Bed Hospital Mian Mir Lahore Cantt Lahore (District Lahore, Lahore Division)</li> <li>○ Civil Hospital Sangla Hill (Nankana District, Lahore Division)</li> <li>○ THQ Hospital Renala (Okara District, Lahore Division)</li> </ul> </li> </ul> | 2017 | Punjab   | Primary &<br>Secondary<br>Healthcar<br>e Dept.<br>Project<br>Managem<br>ent Unit -<br>Lahore | Completed |



|   |   |      |                    |  |             |
|---|---|------|--------------------|--|-------------|
| 3 | <b>Topographic Survey &amp; As-Built Plans for Badami Bagh Workshop</b> <ul style="list-style-type: none"> <li>Area = 2578 ft<sup>2</sup></li> </ul>  | 2018 | Punjab             | Lahore Waste Management Company-Lahore | Completed   |
| 4 | <b>As-built Survey of Khaadi Store – Fortress Square Mall, Lahore</b> <ul style="list-style-type: none"> <li>Area = 9,000 sq. ft.</li> </ul>  | 2021 | Lahore, Punjab     | Khaadi                                 | Completed   |
| 5 | <b>As-built Survey of Khaadi Store – Rawalpindi Saddar</b> <ul style="list-style-type: none"> <li>Area = 23,000 sq. ft.</li> </ul>  | 2021 | Rawalpindi, Punjab | Khaadi                                 | Completed   |
| 6 | <b>As-built Survey of Khaadi Store – Y-Block, DHA, Lahore</b> <ul style="list-style-type: none"> <li>Area = 23,000 sq. ft.</li> </ul>   | 2021 | Lahore, Punjab     | Khaadi                                 | Completed   |
| 7 | <b>As-built Survey of Khaadi Store, Peshawar</b> <ul style="list-style-type: none"> <li>Area = 9,000 sq. ft.</li> </ul>   | 2021 | Lahore, Punjab     | Khaadi                                 | Completed   |
| 8 | <b>As-built Survey of DHQ Hospitals in KPK</b> <ul style="list-style-type: none"> <li>DHQ Hospital, Karak Area = 175,000 sq. ft.</li> <li>DHQ Hospital, Bannu Area = 144,843 sq. ft.</li> <li>DHQ Hospital, Kohat Area = 158,130 sq. ft.</li> <li>DHQ Hospital, Karak Area = 175,000 sq. ft.</li> <li>DHQ Hospital, Mardan Area = 174,592 sq. ft.</li> <li>DHQ Hospital, DI Khan Area = 300,000 sq. ft.</li> <li>DHQ Hospital, Tank Area = 87,000 sq. ft.</li> <li>DHQ Hospital, Lakki Marwat Area = 174,000 sq. ft.</li> </ul> | 2022 | KPK                | NESPAK/IDAP                            | Completed   |
| 9 | <b>Topo Survey and As Built Plans for Chaudry Rehmat Ali Hospital (Trust), Township, Lahore</b> <p>Area = 66 kanals</p>   | 2022 | Lahore             | Khalid Mahmood                         | In progress |





## ROADS / HIGHWAYS / RAILWAYS PROJETS

| No. | Name of Project & Services Provided   | Year | Location    | Client Name                    | Remarks                                |
|-----|---|------|-------------|--------------------------------|--|
| 1   | <b>Quetta-Chaman Road (Existing)</b> <ul style="list-style-type: none"> <li>• Establishment of H &amp; V Control</li> <li>• Topographic Survey – 120 km</li> </ul>  | 2004 | Balochistan | ACE-TES - Lahore               | Completed                              |
| 2   | <b>Sibi – Mach Road (Feasibility Study)</b> <ul style="list-style-type: none"> <li>• Desk &amp; Site study</li> </ul>   | 2004 | Balochistan | ACE-TES - Lahore               | Completed                              |
| 3   | <b>Karachi Circular Railway (45 km)</b> <ul style="list-style-type: none"> <li>• Establishment of H&amp;V Control</li> <li>• Topographic survey of existing railway track</li> </ul>  | 2005 | Sindh       | PRACS - Lahore                 | Part completed project dropped by Gov. |
| 4   | <b>Lodran – T.M.P. – Rahim Yar Khan (N-5 Highway) – 215 km</b> <ul style="list-style-type: none"> <li>• Establishment of permanent survey control network along the Highway</li> <li>• Topographic survey of the existing highway (both carriage ways) up to ROW</li> <li>• Road pavement condition survey</li> <li>• Structures inventory</li> <li>• Geotechnical Investigation</li> </ul> | 2006 | Punjab      | NHA - Islamabad                | Completed                              |
| 5   | <b>Bostan – Zob Railway (295 km)</b> <ul style="list-style-type: none"> <li>• Establishment of H &amp; V Control through GPS</li> <li>• Topographic survey of the existing railway track including railway stations</li> </ul>  | 2006 | Balochistan | PRACS - Lahore                 | Completed                              |
| 6   | <b>5 Bypasses Survey on N-5 – 15 km</b> <ul style="list-style-type: none"> <li>• Establishment of Control points</li> <li>• Topographic survey of the Bypasses</li> </ul>   | 2007 | Punjab      | NHA – Islamabad                | Completed                              |
| 7   | <b>Flyover Site Survey – Gujranwala</b> <ul style="list-style-type: none"> <li>• Establishment survey control points</li> <li>• Topographic survey of flyover site.</li> </ul>  | 2005 | Punjab      | NESPAK - Lahore                | Completed                              |
| 8   | <b>Road Survey at Keyal Khwar HPP</b> <ul style="list-style-type: none"> <li>• Establishment of survey control</li> <li>• Topographic survey of the road alignment</li> </ul>   | 2008 | NWFP(KPK)   | Lahmeyer International-Germany | Completed                              |



|    |  |      |             |                         |           |
|----|--|------|-------------|-------------------------|-----------|
| 9  | <b>Pak-Arab Fertilizer Factory – 70 acres</b> <ul style="list-style-type: none"> <li>• Survey control establishment</li> <li>• Topographic survey for road development</li> </ul>  | 2009 | Punjab      | Pak-Arab Fertilizer Co. | Completed |
| 10 | <b>Golan Gol Hydropower Project</b> <ul style="list-style-type: none"> <li>• Access Road- 8 km</li> <li>• Road design work – 8 km</li> </ul>   | 2011 | NWFP (KPK)  | PES – Lahore            | Completed |
| 11 | <b>New Bridge – Gujranwala City – 2 km</b> <ul style="list-style-type: none"> <li>• Survey Control</li> <li>• Topographic survey of the alignment of the bridge</li> </ul>   | 2012 | Punjab      | ECSP – Lahore           | Completed |
| 12 | <b>Pashdan Dam Project – Harat – Afghanistan</b> <ul style="list-style-type: none"> <li>• Detour of existing highway- 2.9 km</li> <li>• Relocation of Highway likely to submerge in the Dam Reservoir – 8 km</li> <li>• Design work from existing topographic map sheets of the project</li> </ul> | 2013 | Afghanistan | PES _ Lahore            | Completed |



## GEOTECHNICAL AND FOUNDATION ENGINEERING PROJECTS

| No. | Name of Project & Services Provided   | Year | Location            | Client Name                         | Remarks   |
|-----|---|------|---------------------|-------------------------------------|-----------|
| 1   | <b>Lodran-T.M.P.-Rahim yar Khan (N-5)</b><br>- 220 km <ul style="list-style-type: none"> <li>• Geotechnical investigation of the existing road embankment (both carriageways) at 1 km interval.</li> <li>• Road surface condition survey</li> <li>• Structures inventory</li> <li>• Soil testing and geotechnical report</li> </ul> | 2006 | Punjab              | NHA - Islamabad                     | Completed |
| 2   | <b>Oasis Office Building - Lahore</b> <ul style="list-style-type: none"> <li>• Geotechnical investigations</li> <li>• Soil testing and geotechnical report</li> </ul>   | 2015 | Punjab              | ILF-NESPAK – JV - Lahore            | Completed |
| 3   | <b>Geotechnical Investigation at Kamran Steel Rerolling Mills – Sheikhpura – 26 Boreholes</b> <ul style="list-style-type: none"> <li>• Soil testing</li> <li>• Geotechnical Report</li> </ul>   | 2017 | Punjab              | Mian Ashraf                         | Completed |
| 4   | <b>Geotechnical Investigation at Gulzar Residences – 3 Bore holes</b> <ul style="list-style-type: none"> <li>• Soil testing</li> <li>• Geotechnical Report</li> </ul>   | 2017 | Punjab              | Danish Ahmad (Oasis Resorts)        | Completed |
| 5   | <b>Foundation Design for New Shed at Kamran Steel Rerolling Mills – Sheikhpura</b>  | 2017 | Punjab              | Mian Ashraf                         | Completed |
| 6   | <b>Geotechnical Investigation at Gulzar Residences, DHA (Lahore)</b> <ul style="list-style-type: none"> <li>• Boreholes</li> <li>• Soil Testing</li> <li>• Geotechnical Report</li> </ul>   | 2017 | Punjab              | Danish Ahmad                        | Completed |
| 7   | <b>Geotechnical Investigation of site in Eimenabad</b> <ul style="list-style-type: none"> <li>• 5 No. Boreholes</li> <li>• Soil Testing</li> <li>• Geotechnical Report</li> </ul>   | 2018 | Punjab              | Hasan & Hasan Associates-Gujrunwala | Completed |
| 8   | <b>Geotechnical Investigation at Solar Power Plant Site in Muridke</b> <ul style="list-style-type: none"> <li>• Boreholes</li> <li>• Soil Testing</li> <li>• Geotechnical Report</li> </ul>   | 2018 | Punjab              | REON Energy, Lahore                 | Completed |
| 9   | <b>Geotechnical Investigation at LPG Bottling Plant, Lachi (KPK)</b> <ul style="list-style-type: none"> <li>• 5 Boreholes</li> <li>• Soil Testing</li> <li>• Geotechnical Report</li> </ul>   | 2019 | District Kohat, KPK | Dynamic Engineering & Automation    | Completed |



|    |  |      |                    |          |                |
|----|--|------|--------------------|----------|----------------|
| 10 | <b>Geotechnical Investigation at Euro Oil Facility, Sahiwal</b> <ul style="list-style-type: none"><li>• 1 Borehole</li><li>• Soil Testing</li><li>• Geotechnical Report</li></ul>  | 2019 | Sahiwal,<br>Punjab | Euro Oil | Completed      |
| 11 | <b>Geotechnical Investigation at Euro Oil Facility, Sahiwal</b> <ul style="list-style-type: none"><li>• 7 Boreholes</li><li>• Soil Testing</li><li>• Geotechnical Report</li></ul> | 2020 | Machike,<br>Punjab | Euro Oil | In<br>progress |



## THERMAL POWER PROJECTS

| No. | Name of Project & Services Provided  | Year | Location | Client Name                         | Remarks                                |
|-----|--|------|----------|-------------------------------------|--|
| 1   | <b>Baloki 200 MW + 200 MW Combined Cycle Power Plant</b> <ul style="list-style-type: none"> <li>• Establishment of H &amp; V Control</li> <li>• Topographic Survey – 25 Hec</li> </ul>   | 2004 | Punjab   | DECON - Lahore                      | Completed                              |
| 2   | <b>Dharki Thermal Station</b> <ul style="list-style-type: none"> <li>• Establishment of survey control</li> <li>• Topographic Survey of site – 50 acres</li> <li>• Gas line route survey &amp; water line route survey – 10 km</li> <li>• Topographic Survey of water wells sites - 2</li> </ul> | 2004 | Sindh    | DECON - Lahore                      | Completed                              |
| 3   | <b>200 MW Muridke Combined Cycle Power Project</b> <ul style="list-style-type: none"> <li>• Establishment of H&amp;V Control</li> <li>• Topographic survey of site</li> </ul>  | 2005 | Punjab   | PES - Lahore                        | Part completed project dropped by Gov. |
| 4   | <b>Dharki – 123 MW Thermal Station</b> <ul style="list-style-type: none"> <li>• Establishment of permanent survey control</li> <li>• Topographic survey of the site – 72 acres</li> </ul>  | 2005 | Sindh    | PES - Lahore                        | Completed                              |
| 5   | <b>175 MW Combined Cycle Power Project</b> <ul style="list-style-type: none"> <li>• Establishment of H &amp; V Control</li> <li>• Topographic survey of the site – 100 acres</li> </ul>  | 2006 | Sindh    | Fauji Foundation & Fitchner Germany | Completed                              |
| 6   | <b>BIKI 225 MW Combine Cycle Power Project</b> <ul style="list-style-type: none"> <li>• Establishment of Control points</li> <li>• Topographic survey of the site – 48 acres</li> </ul>  | 2006 | Punjab   | Orient Power                        | Completed                              |
| 7   | <b>150 MW Combine Cycle Power Project – Pasrur - Sialkot</b> <ul style="list-style-type: none"> <li>• Establishment survey control points</li> <li>• Topographic survey of site – 70 acres</li> </ul>  | 2007 | Punjab   | Gama Power System - Lahore          | Completed                              |
| 8   | <b>Nishat Chunian Thermal Power Project</b> <ul style="list-style-type: none"> <li>• Establishment of survey control</li> <li>• Topographic survey site-120 acres</li> </ul>   | 2016 | Punjab   | Nishat Chunian Energy - Lahore      | Completed                              |



## OVERSEAS PROJECTS

| No. | Name of Project & Services Provided   | Year | Location                | Client Name   | Remarks   |
|-----|---|------|-------------------------|---|-----------|
| 1   | <b>NORTH TRUNK CANAL EXTENSION<br/>KHANDAR- AFGHAISTAN – 20 KM</b> <ul style="list-style-type: none"> <li>• Topographic Survey provided</li> <li>• Canal design carried out.</li> </ul>                           | 2004 | Afghanistan             | Afghan<br>Archensurs –<br>Kandahar -<br>Afghanistan               | Completed |
| 2   | <b>Chaman – Khandar Railway Project</b> <ul style="list-style-type: none"> <li>• Field survey data provided.</li> <li>• Data processing</li> <li>• Computer aided mapping carried out – 110 km</li> </ul>         | 2004 | Kandahar<br>Afghanistan | Afghan<br>Archensurs –<br>Kandahar -<br>Afghanistan               | Completed |
| 3   | <b>CAD Services on Saudi Railway<br/>Project (Eastern Saudi Arabia) –<br/>2200 km</b> <ul style="list-style-type: none"> <li>• Rough plotting provided</li> <li>• Cad drawing finished yb<br/>G&amp;ES</li> </ul> | 2005 | Saudi<br>Arabia         | Riyadh<br>Geotechnique &<br>Foundation<br>Consultants -<br>Riyadh | Completed |
| 4   | <b>Services of Survey Engineer and<br/>surveyors for Railway Project- Saudi<br/>Arabia (Eastern)</b>  | 2005 | Saudi<br>Arabia         | Riyadh<br>Geotechnique &<br>Foundation<br>Consultants -<br>Riyadh | Completed |
| 5   | <b>Machalgho Dam - Afghanistan</b> <ul style="list-style-type: none"> <li>• Establishment of Vertical<br/>Control – 40 km</li> </ul>  | 2012 | Afghanistan             | PES - Lahore  | Completed |
| 6   | <b>Pashdan Dam Project</b> <ul style="list-style-type: none"> <li>• Highway design services on<br/>two highways – 2.9 km &amp; 8<br/>km</li> </ul>  | 2006 | Afghanistan             | PES - Lahore  | Completed |



## MISC. SURVEYING PROJECTS

| No. | Name of Project & Services Provided  | Year | Location                    | Client Name                        | Remarks   |
|-----|--|------|-----------------------------|------------------------------------|-----------|
| 1   | <b>Sunder Sharif Shrine - Lahore</b> <ul style="list-style-type: none"> <li>Measurements of the Shrine Dome to establish its roundness.</li> </ul>   | 2004 | Punjab                      | Architect Farooq Saboor - Lahore   | Completed |
| 2   | <b>Surveying Services to Packages</b> <ul style="list-style-type: none"> <li>Field survey work at Bulleh Shah Paper Mill Project</li> </ul>  | 2005 | Qasur-Punjab                | Packages Limited-Lahore            | Completed |
| 3   | <b>Satpara Irrigation Channel Services of Sr. Surveyor</b> <ul style="list-style-type: none"> <li>Field work for the Channel</li> </ul>  | 2005 | Skardu                      | PES - Lahore                       | Completed |
| 4   | <b>Verticality Check on Tall Buildings in Islamabad</b> <ul style="list-style-type: none"> <li>Post major earthquake of 2005</li> </ul>  | 2005 | Islamabad Capital Territory | NESPAK - Lahore                    | Completed |
| 5   | <b>Asian Geophysical Services</b> <ul style="list-style-type: none"> <li>Advisory services</li> </ul>  | 2005 | Balochistan                 | AGS - Islamabad                    | Completed |
| 6   | <b>Rohi Nallah Strip Survey</b> <ul style="list-style-type: none"> <li>Survey control</li> <li>Topo survey – 15 km</li> </ul>  | 2005 | Punjab                      | NESAPK- E&PHE - Lahore             | Completed |
| 7   | <b>South Lahore Sewerage and Drainage Project - 150 km</b> <ul style="list-style-type: none"> <li>H&amp;V Survey Control establishment</li> <li>Leveling along sewerage and drainage channels</li> </ul> | 2005 | Punjab                      | NESAPK- E&PHE - Lahore             | Completed |
| 8   | <b>United Ethanol Industries</b> <ul style="list-style-type: none"> <li>Survey control</li> <li>Topographic survey – 27 acres</li> </ul>   | 2008 | Punjab                      | United Ethanol-Lahore              | Completed |
| 9   | <b>As Built Survey of Existing House - 6 kanal property - Shadman</b>  | 2009 | Punjab                      | Jamal Zafar - Lahore               | Completed |
| 10  | <b>Sialkot Drain Survey</b> <ul style="list-style-type: none"> <li>Survey control</li> <li>Topo survey – 7 km</li> </ul>   | 2009 | Punjab                      | Dept. of Public Health Engineering | Completed |
| 11  | <b>Tajpura Scheme Area</b> <ul style="list-style-type: none"> <li>Survey control</li> <li>Topo survey – 7 km</li> </ul>  | 2011 | Punjab                      | Building Standards - Lahore        | Completed |
| 12  | <b>350 Bed Hospital Bahawalpur</b> <ul style="list-style-type: none"> <li>Survey control</li> <li>Topo survey</li> </ul>   | 2011 | Punjab                      | Shagufta-Munir Architects - Lahore | Completed |
| 13  | <b>Sharif Farms – Chinot</b> <ul style="list-style-type: none"> <li>Survey control</li> <li>Topo survey – 53 acres</li> </ul>  | 2011 | Punjab                      | Building Standards - Lahore        | Completed |
| 14  | <b>Façade Mapping of Historical Building-Karachi</b>   | 2017 | Karachi-Sindh               | TPL Properties-Karachi             | Completed |
|     |  |      |                             |                                    |           |



|    |   |      |       |                              |           |
|----|---|------|-------|------------------------------|-----------|
| 15 | <b>Water Well Elevation Survey at<br/>Engro Polymer Plant and Kemari Oil<br/>Terminal - Karachi</b> | 2018 | Sindh | Hagler Bailey -<br>Islamabad | Completed |
|----|---|------|-------|------------------------------|-----------|





## GAS PIPE LINES & Oil IDUSTRY RELATED PROJECTS

| No. | Name of Project & Services Provided   | Year | Location             | Client Name   | Remarks     |
|-----|---|------|----------------------|---|-------------|
| 1   | <b>IRAN – PAKISTAN GAS PIPE LINE</b> <ul style="list-style-type: none"> <li>• Establishment of GPS control network along the route – 800 km</li> </ul>  | 2011 | Balochistan & Sindh  | ILF-NESPAK – JV - Lahore  | Completed   |
| 2   | <b>IRAN – PAKISTAN GAS PIPE LINE</b> <ul style="list-style-type: none"> <li>• H &amp; V Control at 10 km interval</li> <li>• Gas Pipeline route topographic survey – 200 m wide band – 1<sup>st</sup> section of <b>200 km</b> length from Iranian Border</li> <li>• Bathymetric Survey of River and Nallah crossings</li> <li>• 3<sup>rd</sup> Party Crossing</li> </ul>   | 2011 | Balochistan & Sindh  | ILF-NESPAK – JV - Lahore  | Completed   |
| 3   | <b>PAK-ARAB Refinery Limited – Karachi</b> <ul style="list-style-type: none"> <li>• Route survey for Tankers Unloading Pipeline – 600</li> </ul> <b>Topographic Surveys at:</b> <ul style="list-style-type: none"> <li>• Terminal Station at Bin Qasim – WOTS – 1 7 acres</li> <li>• Terminal Station at Shikarpur – WOTS – 2 6 acres</li> <li>• Terminal Station at Mahmood Kot – WOTS – 3 22 acres</li> </ul>   | 2015 | Sindh & Punjab       | PAPCO - Karachi   | Completed   |
| 4   | <b>TAPI Gas Pipe Line (56" dia) Pakistan Section – 820 km</b> <ul style="list-style-type: none"> <li>• Establishment of GPS control</li> <li>• Bathymetric Survey of Rivers and Canal / Drains</li> <li>• 3<sup>rd</sup> Party Crossings: <ul style="list-style-type: none"> <li>○ Power Lines</li> <li>○ Gas Lines</li> <li>○ Oil Pipe Lines</li> </ul> </li> <li>• GCPs 124 for LiDAR and Aerial Photography work</li> <li>• GPS station for LiDAR aircraft</li> </ul> Terrestrial Survey of area near Indian and Afghan Border where no fly areas. Approx. 30 km | 2018 | Balochistan & Punjab | TAPI Gas Company- Dubai UAE<br>Consultants of the Project:<br>ILF - Germany | In progress |
| 5   | <b>PARCO Gas Pipeline Survey – 350m</b> <ul style="list-style-type: none"> <li>• Longitudinal profile along Gas Pipeline route</li> </ul>   | 2019 | Sindh                | PARCO-Karachi   | Completed   |



## DEFORMATION MONITORING PROJECTS

| No. | Name of Project & Services Provided  | Year | Location          | Client Name  | Remarks   |
|-----|--|------|-------------------|--|-----------|
| 1   | <p><b>3<sup>rd</sup> Periodic Inspection – Warsak Dam</b></p> <ul style="list-style-type: none"> <li>• Review of existing methodology</li> <li>• Review of movement monitoring data collection and processing of results</li> <li>• Results analysis and presentation.</li> </ul> <p>Areas of Interest:</p> <ul style="list-style-type: none"> <li>○ Barrage Structure</li> <li>○ Power Channel</li> <li>○ Power House</li> <li>○ Embankments</li> </ul> | 2010 | NWFP<br>(KPK)     | Technology<br>Resources<br>Development -<br>Lahore | Completed |
| 2   | <p><b>Ghazi Barotha Baseline Inspection</b></p> <ul style="list-style-type: none"> <li>• Review of movement monitoring methodology</li> <li>• Review of movement monitoring data collection and processing.</li> <li>• Results analysis and report</li> </ul>  | 2010 | NWFP &<br>Punjab  | Technology<br>Resources<br>Development-<br>Lahore  | Completed |
| 3   | <p><b>Installation of Movement Monitoring Pins at BQPS-II, Karachi</b></p> <ul style="list-style-type: none"> <li>• Construction of Primary Benchmark (01 No)</li> <li>• Construction of Secondary Benchmarks (10 Nos)</li> <li>• Leveling of benchmarks</li> <li>• Installation of Stainless Steel Bars / Rods on all Structures – 221 Nos.</li> <li>• Survey Report</li> </ul>   | 2018 | Karachi,<br>Sindh | Karachi Electric<br>Company                        | Completed |



## DRONE IMAGERY/VIDEOGRAPHY PROJECTS

| No. | Name of Project & Services Provided   | Year        | Location              | Client Name    | Remarks   |
|-----|---|-------------|-----------------------|----------------|-----------|
| 1   | <b>Drone Imagery Mapping of sites in Phander &amp; Gilgit</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li><li>• Videography of the sites with drone</li></ul>       | 2019        | Gilgit-Baltistan      |                | Completed |
| 2   | <b>Drone Imagery Mapping of D-Block Tariq Gardens</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li><li>• Videography of the sites with drone</li></ul>               | 2019        | Lahore                |                | Completed |
| 3   | <b>Drone Imagery Mapping of Bank Square Market, Model Town</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li><li>• Videography of the sites with drone</li></ul>      | 2019        | Lahore                |                | Completed |
| 4   | <b>Drone Imagery Mapping of Model Town Central Park-Portion Behind Bank Square Market</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li></ul>                         | 2019 & 2020 | Lahore                |                | Completed |
| 5   | <b>Drone Imagery Mapping and Videography of property in DHA Phase 6 for proposed mixed development</b>  | 2020        | DHA, Phase 6 (Lahore) | PAL Group      | Completed |
| 6   | <b>Drone Imagery Mapping of Model Town Linear Park (along Ferozpur Road)</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li></ul>                                      | 2020        | Lahore                |                | Completed |
| 7   | <b>Drone Imagery Mapping of 7 Pedestrian Bridges in Swat</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li><li>• Development of DEM and DTM from drone data</li></ul> | 2020        | Swat                  | UNOPS-Pakistan | Completed |
| 8   | <b>Drone Imagery Mapping of 500 kanals near Tret, Murree</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li><li>• Videography of the site with drone</li></ul>         | 2020        | Tret, Murree          |                | Completed |
| 9   | <b>Drone Imagery Mapping of Bonyo</b>   | 2022        | Swat                  |                | Completed |



|    |   |      |        |  |           |
|----|---|------|--------|--|-----------|
|    | <b>Bridge, Swat</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li></ul>   |      |        |  |           |
| 10 | <b>Drone Imagery Mapping of Bonyo Bridge and Oach Bridges, Swat</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li></ul> | 2023 | Swat   |  | Completed |
| 11 | <b>Drone Imagery Mapping of 11,000 kanals, Gujjar Khan</b> <ul style="list-style-type: none"><li>• Orthomosaic Image Preparation/Mapping</li></ul>          | 2023 | Punjab |  | Completed |

# Project Sheets



## PROJECT SHEET

Project Name: Topographic Survey and Drone Mapping-Videography of sites in Phander and Gilgit

Project Location: Gilgit-Baltistan, Pakistan  
- Gilgit  
- Phander (Ghizer District)

Client Name: Mr. Yousaf Jamal

Time Frame: September 2019

Project Cost: Rs. 670,000

Scope of Work:

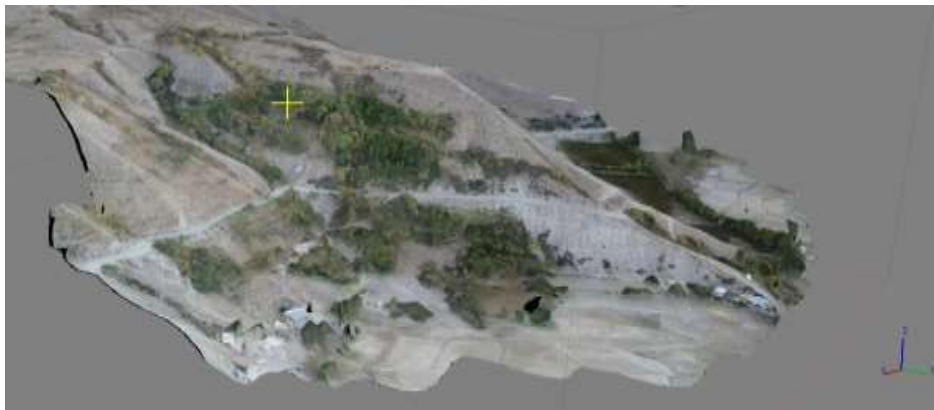
- Topographic survey of proposed sites for hotel
- Horizontal Control through Traversing
- Vertical Control through leveling
- Construction of survey benchmarks on site
- CAD mapping for preparation of drawings
- Drone imagery acquisition using Phantom 4 Pro drone for both sites
- Imagery data processing and preparation of orthomosaic images for both sites
- Videography of sites using drone



Orthomosaic Images of Phander and Gilgit Sites produced using Agisoft



Surveyor at Phander site



3D image processing done using Agisoft



Drone imagery acquisition using drone



## PROJECT SHEET

Project Name: Topographic & As-Built Survey of Sialkot International Airport

Project Location: Sambrial, Pakistan

Client Name: Sialkot International Airport Limited (SIAL)

Time Frame: February 2019 – April 2019

Project Cost: Rs. 4,073,854

Scope of Work:

- Topographic survey of landside and airside of Sialkot International Airport
- Horizontal Control through Traversing
- Vertical Control through leveling
- Construction of 10 No. survey benchmarks on SIAL property
- CAD mapping for preparation of as-built drawings



Surveyor with prism at survey benchmark on landside



Surveyor with GPS Base station at a survey benchmark on landside





Topo survey work in progress on aircraft parking apron



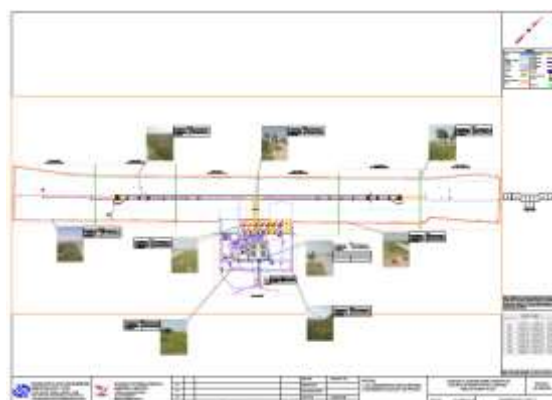
Sample CAD drawing folder



Sample drawing of landside



Sample drawing of airside



Drawing showing airside and landside



## PROJECT SHEET

Project Name: Turkhmenistan-Afghanistan-Pakistan-India (TAPI) Gas Pipeline (Pakistan Section)

Project Location: Chamman (Afghanistan Border to Pak Pattan (Indian Border – 820 km)

Client Name: TAPI Gas Pipeline Company

Time Frame: May 2018 – May 2019

Project Cost: USD 203,000

Scope of Work:

- Bathymetric/Topo survey of water crossings (canals, rivers, waterways) along pipeline route (820 km)
- Survey of 3<sup>rd</sup> party crossings (Powerlines, Gas/Oil Pipelines etc)
- Installation of GCP (Ground Control Points) for LiDAR work
- Ground support for company undertaking LiDAR work
- CAD mapping and report of all survey work performed



Canal survey work in progress



Topo survey work in progress at Indus River crossing



Dry River Bed Survey work



## PROJECT SHEET

Project Name: Upgradation of DHQ Hospital to Teaching Hospital

Project Location: Sialkot, Pakistan

Client Name: Infrastructure Development Authority Punjab (IDAP)

Time Frame: August 2016

Project Cost: Rs. 624,000

Scope of Work:

- Topographic survey of site at 1:1000 scale with 1ft contour interval
- Establishment of 3 Nos. permanent survey markers
- Establishment of horizontal and vertical control network
- Preparation of topographic survey drawing



GPS base station setup at site



GPS base setup at site at CP2



BM 1 at site



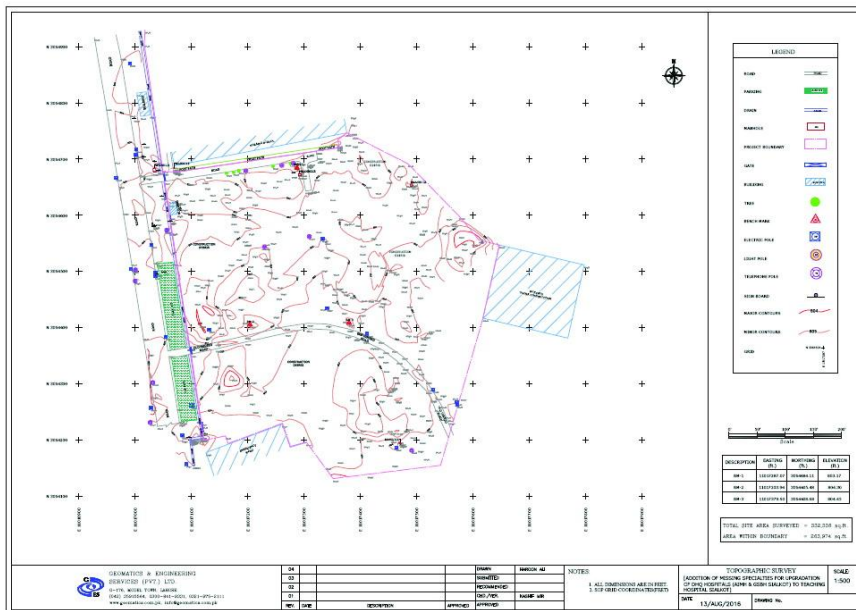
BM 2 at site



Surveyor at BM3 with Total Station



Surveyor at BM3



Topographic Plan of Site



## PROJECT SHEET

Project Name: Topographic Survey & Geotechnical Study of Nishat Chunian Thermal Station

Project Location: Sheikhpura, Pakistan

Client Name: Nishat Chunian Group

Time Frame: June 2016

Project Cost: Rs. 450,000

Scope of Work:

- Construction of Survey Stations (6 Nos.)
- Topographic Survey of approximately 150 acres
- Computer aided mapping at 1:1000 and contour interval at 0.25m
- Survey Report
- Geotechnical Investigations and Soil/Water Testing
- Geotechnical Report



BM-1 at site



BM-2 at site



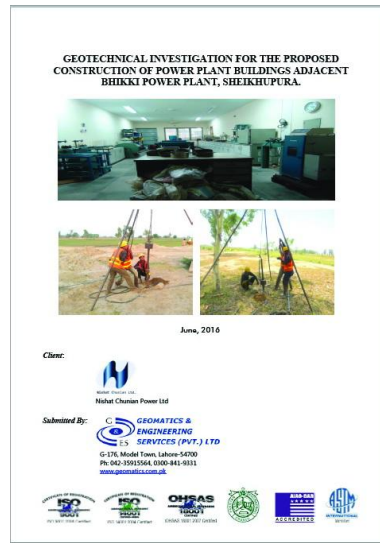
Surveyor at BM 3



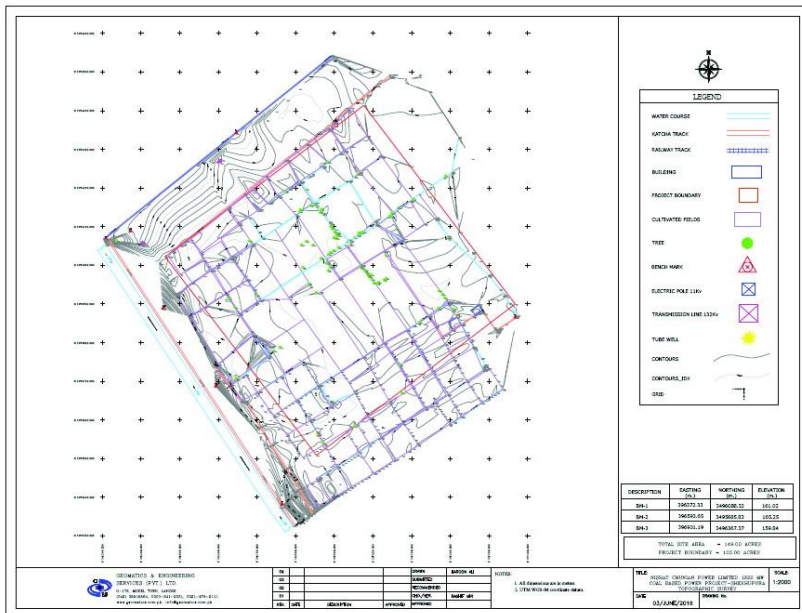
View of Site



View of Site



Geotechnical Report



Topographic Plan of Site



## PROJECT SHEET

Project Name: Construction Supervision / Project Management of CVCHS Boundary Wall Project

Project Owner: Canal View Cooperative Housing Society (Lahore)

Project Location: Canal Bank Road, Lahore - Pakistan

Client Name: Canal View Cooperative Housing Society, Lahore (Pakistan)

Time Frame: December 2015 – April 2016

Contractor: Al-Karim Enterprises & Developers

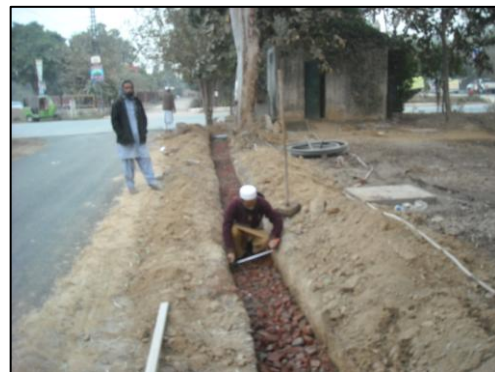
Project Cost: Rs. 3,800,000

### Scope of Work:

- Supervision of construction activities during project duration to ensure work is being done per construction drawings
- Conducting Progress Meetings with Owner and Contractor to discuss issues pertaining to construction
- Verifying and approving Contractor's invoices for payment
- Making minor design changes as deemed necessary during the course of construction to accommodate unforeseen utilities
- Preparing Daily and Weekly Progress Reports with photographic record



Excavation for boundary wall



Field verification of foundation during construction





Wall Construction in progress



Wall Construction in progress



Field visit by G&ES PM



Plaster on boundary wall



Plastering on wall in progress



Installation of metal fence on wall



Checking of metal fence on wall



Installation of metal fence on wall



## PROJECT SHEET

Project Name: Punjab Daanish School – Jhand – Dist. Attock  
Project Owner: Punjab Government  
Project Consultants: Engineering Consultancy Services of Punjab – (ECSP). Lahore.  
Project Location: Jhand – Dist. Attock – Punjab. Pakistan  
Client Name: ECSP, Lahore. Pakistan  
Time Frame: September – October 2015  
G&ES Fees: Rs. 164,000/=

Scope of Work:

- Establish Survey Control Stations in the project area.
- Topographic Survey 1:1000 C.I. 1m. (235 acres).
- Computer aided mapping
- Google Earth Overlay
- Survey Report



Daanish School Building



GPS Base Station



Field Data Acquisition – RTK Mode



Survey Marker - BM No.1



## PROJECT SHEET

Project Name: Photohar Climate Smart Irrigated Agriculture Project (PCSIAP)  
Project Owner: Punjab Government  
Project Consultants: PCSIAP Consultants - Lahore  
Project Location: Dhrabi Dam & Uthwal/Lakhwal Dam - Chakwal Dist. – Punjab.  
Client Name: PCSIAP Consultants, Lahore. Pakistan  
Time Frame: July – October, 2015  
G&ES Fees: Rs. 4,696,000/=

Scope of Work:

- Establish Survey Control Stations in the project area.
- Topographic Survey Command Areas – Dhrabi Dam & Uthwal/Lakhwal Dam Areas 1:1000 C.I. 1ft. (≈ 10,000 acres).
- Main Channel Topographic Survey – Dhrabi Dam Area + 4 Minor Channels + Plan Profile Drawings.
- Main Channel Topographic Survey – Uthwal/Lakhwal Dam Area + 2 Minor Channels + Plan & Profile Drawings.
- Topographic Survey of Dhrabi Dam & Spillway + Uthwal/Lakhwal Dam & Spillway including generating cross sections of the Dam Embankments and Spillways.
- Computer aided mapping
- Google Earth Overlay
- Survey Report



Base Station



Topo Data Acquisition – RTK Mode



Survey Station



Reflector Prism on Station



Pipe Measurement in Manhole



Client's Visit



## PROJECT SHEET

**Project Name:** Construction Supervision / Project Management of CVCHS Roads Rehabilitation & New Storm Water Drainage Project

**Project Owner:** Canal View Cooperative Housing Society (Lahore)

**Project Location:** Canal Bank Road, Lahore - Pakistan

**Client Name:** Canal View Cooperative Housing Society, Lahore (Pakistan)

**Time Frame:** August 2015 – March 2016

**Contractor:** Tariq Zia & Company

**Project Cost:** Rs. 56,561,598

### Scope of Work:

- Supervision of construction activities during project duration to ensure work is being done per construction drawings
- Conducting Progress Meetings with Owner and Contractor to discuss issues pertaining to construction
- Verifying and approving Contractor's invoices for payment
- Making minor design changes as deemed necessary during the course of construction to accommodate unforeseen utilities
- Monitoring material testing in lab and at site
- Preparing Daily and Weekly Progress Reports with photographic record



Excavation for concrete pipe



Field verification of levels during construction



Soil compaction test in progress



Formwork for large drainage inlet



Installation of curbstone around median



Verification of steel reinforcement



Brick paver installation in progress



Installation of curbstone



Construction of speed breakers



Brick paver and curbstone on road

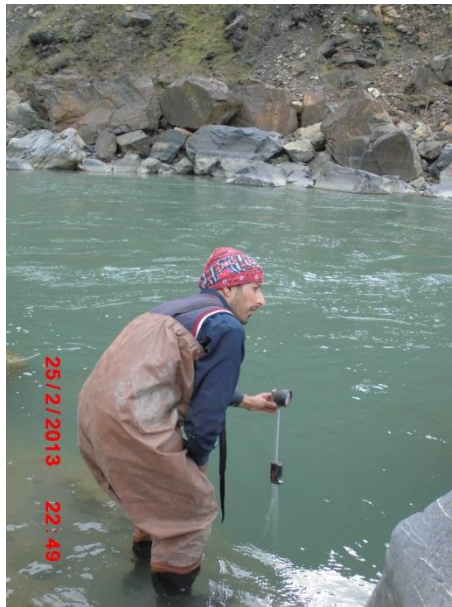


## PROJECT SHEET

Project Name: Ashkot Hydropower Project - AJK  
Project Client: Ashkot Energy Company - Islamabad  
Project Location: Neelum River- Azad Jammu & Kashmir - Pakistan  
Time Frame: October 2013 –January 2014  
G&ES Fees: 3,500,000

### Scope of Work;

- Establishment of H & V survey control.
- Ground Control Points for mapping from stereo satellite imagery.
- River Cross Sections at three locations on Neelum River and at Power House site.
- Topographic Survey at Weir Sites, & Power House site.
- Profile of Tunnel alignment.
- Survey Report





## PROJECT SHEET

Project Name: Topographic Survey at PAPCO Terminal Stations WOTS-1, WOTS-2 & WOTS-3 + Route Survey for Tanker unloading Pipeline.  
Project Owner: Pak-Arab Pipeline Company Limited - Karachi  
Project Consultants: N / A  
Project Location: Port Qasim- Karachi, Shikarpur Terminal Station, & Mahmood Kot  
Client Name: PAPCO – Karachi - Pakistan  
Time Frame: May-June, 2015  
G&ES Fees: Rs. 898,000/=

### Scope of Work:

- Establish Survey Control Stations in the project area.
- Topographic Survey at WOTS-1, WOTS-2, & WOTS-3 1:1000 C.I. 1m.
- Route Survey – 20m wide strip for Pipeline at Port Qasim Terminal
- Computer aided mapping



Pipeline Route Marker (Typical)



Survey Work at Karachi



Permanent BM Construction WOTS-2



Survey Work in progress at WOTS-2



## PROJECT SHEET

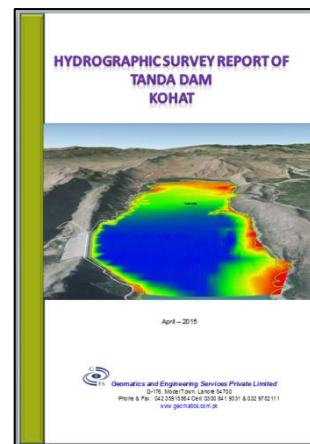
Project Name: Tanda Dam Bathymetric Survey  
Project Owner: Cameos Consultants, Islamabad (Pakistan)  
Project Location: Tanda Reservoir, Kohat - Pakistan  
Client Name: Cameos Consultants, Islamabad (Pakistan)  
Time Frame: April 2015

### Scope of Work:

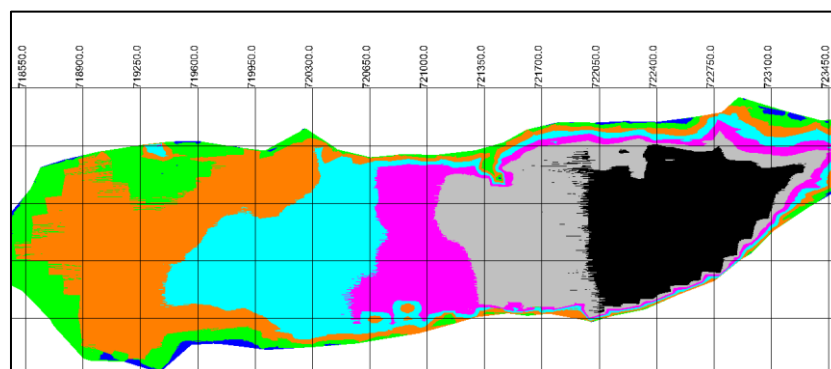
- Bathymetric Survey of Tanda Dam Reservoir
- Wet cross sections using echo sounder at 30m interval (16 Nos.)
- Preparation of survey report



Google Earth Image of Tanda Dam Reservoir

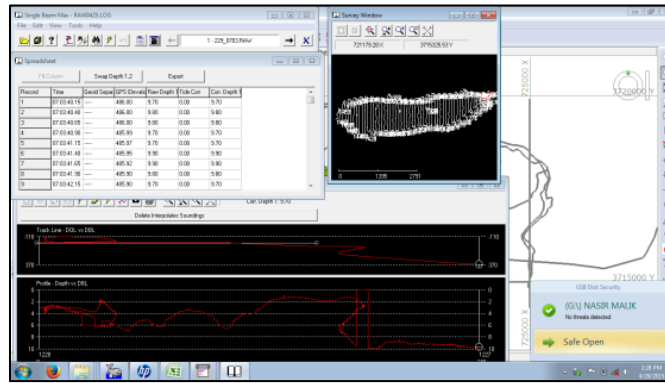


Hydrographic Survey Report

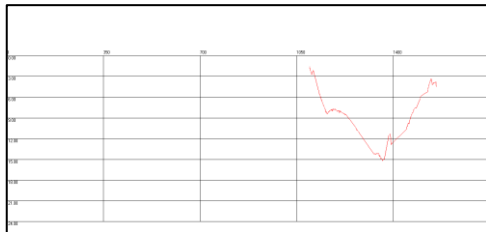


Cross section Layout showing depths (as shading)

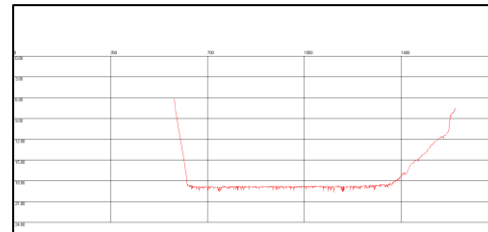




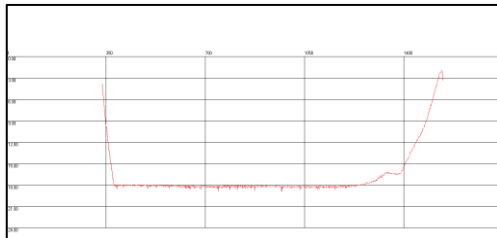
Data Editing in software to produce cross sections



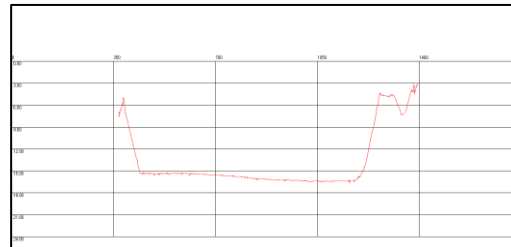
Cross Section #1



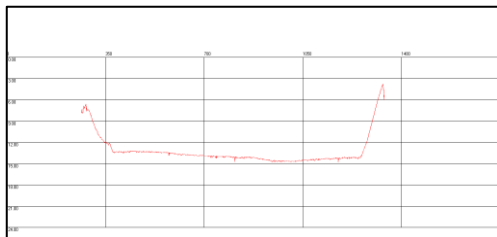
Cross Section #3



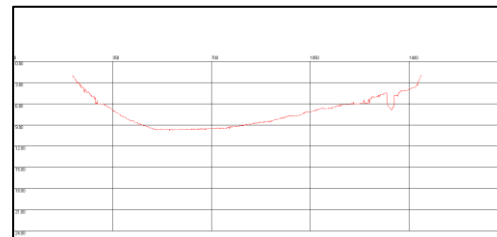
Cross Section #5



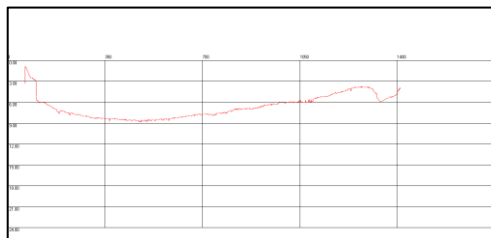
Cross Section #7



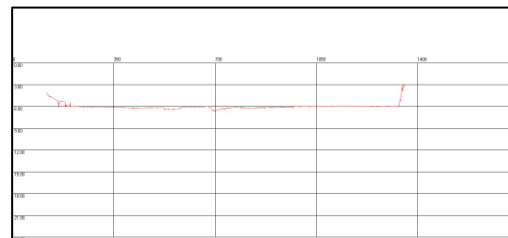
Cross Section #8



Cross Section #12



Cross Section #13



Cross Section #14



## PROJECT SHEET

Project Name: Geotechnical Investigation for Oasis Head Office

Project Owner: Oasis Resorts, Karachi (Pakistan)

Project Location: Off Ferozpur Road, Lahore - Pakistan

Client Name: Oasis Resorts, Karachi (Pakistan)

Time Frame: March 2015

Scope of Work:

- Drill three bore holes for soil samples and testing
- Soil testing on the samples
- Geotechnical report on the findings



Borehole # 1



Borehole #2



Borehole # 3



Borehole #2-alternate



## PROJECT SHEET

**Project Name:** Canal View Cooperative Housing Society Roads & New Storm Water Drainage Project

**Project Owner:** Canal View Cooperative Housing Society (Pakistan)

**Project Location:** Canal Bank Road, Lahore - Pakistan

**Client Name:** Canal View Cooperative Housing Society, Lahore (Pakistan)

**Time Frame:** February – May 2015

**Scope of Work:**

- Dig test pits for soil samples from existing roadway
- Soil testing of samples
- Design of society roadways (Plan and Profile drawings) for 3 main roads – 2.54km length
- Design of Stormwater Drainage System
- Preparation of Tender Documents and Specifications for the project



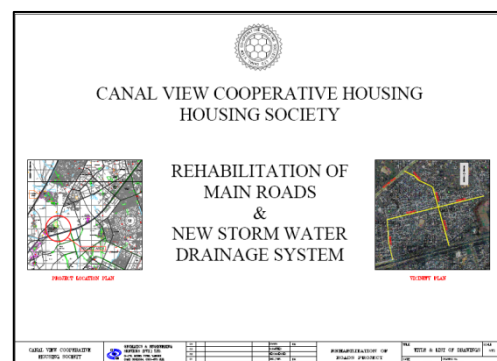
Checking of existing survey



View of exiting road to be designed



Test pit # 1



Bid Drawing Set

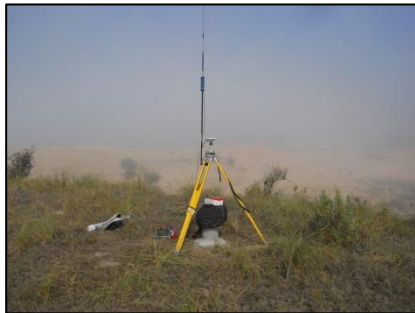


## PROJECT SHEET

Project Name: 50MW Solar Power Plan Project  
Project Owner: Siddiqsons Pvt. Ltd, Karachi (Pakistan)  
Project Location: District Chakwal (Kallar Kahar Area) - Pakistan  
Client Name: Siddiqsons Pvt. Ltd, Karachi (Pakistan)  
Time Frame: October 2014 – November 2014

### Scope of Work:

- Topographic Survey for proposed Solar Power Plant (300 Acres)
- Computer aided mapping and maps printing.
- Installation of 16 survey monuments



GPS Base Station setup



GPS Rover in operation



Survey Marker on site



Site terrain



## PROJECT SHEET

Project Name: Patrind Hydropower Project (150 MW) - 2014  
Project Owner: Daewoo E&C - Korea  
Project Location: PKP & AJK - Pakistan  
Client Name: Daewoo E&C - Korea  
Time Frame: January – 2014 to March – 2014  
G&ES Fees: 924,000 Rs.

### Scope of Work;

- Checking of existing control stations
- Establishment of horizontal and vertical (20 km) control stations in the project area.
- Topographic Survey of Intake and Power House Sites (27 hectares) 1:500 with 1 m C.I.
- Repeat Computer aided mapping involving 170,000 elevation points.
- Survey Report





## PROJECT SHEET

Project Name: Gulpur Hydropower Project – AJK (100 MW)  
Project Client: SUNYOUNG Engineering - Korea  
Project Location: Ponch River & Ban Nallah - Azad Jammu & Kashmir - Pakistan  
Time Frame: May 2013 to August 2013  
G&ES Fees: 4,450,000 Rs.

### Scope of Work;

- Establishment of H & V survey control.
- River Cross Sections at three locations on Ponch River and Ban Nallah
- Topographic Survey at Weir Site, Intake & Power House site.
- Profile of Tunnel alignment.
- Survey Report



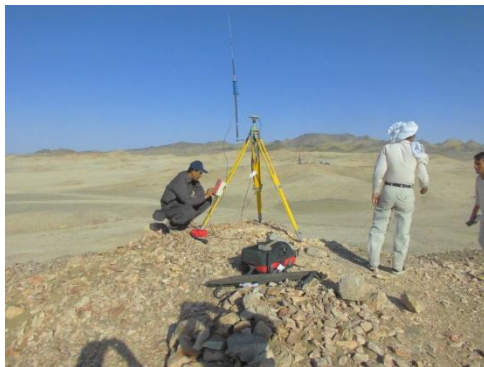


## PROJECT SHEET

Project Name: Balochistan Copper Gold Project  
Project Client: Balochistan Copper Gold Project Company  
Project Location: Balochistan - Pakistan  
Time Frame: October 2013 –January 2014  
G&ES Fees: 936,000 Rs.

### Scope of Work;

- Establishment of survey control using GPS
- Survey of ground control points for mapping from stereo satellite Imagery.
- Mapping from imagery with 1 m contour interval at 1:1000
- Survey Report





## PROJECT SHEET

Project Name: Iran Pakistan Gas Pipeline Project – GPS Control

Project Owner: Inter State Gas System – Islamabad (Pakistan)

Project Location: Balochistan and Sind Provinces (Pakistan)

Client Name: Joint Venture of NESPAK and ILF - Germany

Time Frame: October 2011 – November 2011

### Scope of Work;

- Construction of permanent concrete survey markers at 100 km interval along the total 800 km length of the pipeline route. Starting from Iranian border near Gwadar (Balochistan) to Nawabshah in Sind.
- Establishment of horizontal control in Survey of Pakistan Grid coordinates using dual frequency GPS equipment.



Typical Survey Marker



GPS Base Station





## PROJECT SHEET

Project Name: Iran Pakistan Gas Pipeline Project – Topographic Survey of Route 1<sup>st</sup> 200 km of the 800 km length.  
Project Owner: Inter State Gas System – Islamabad (Pakistan)  
Project Location: Balochistan and Sind Provinces (Pakistan)  
Client Name: Joint Venture of NESPAK and ILF - Germany  
Time Frame: October 2011 – November 2011

### Scope of Work;

- Construction of permanent concrete survey markers at 10 km interval along the 200 km length of the pipeline route. Starting from Iranian border near Gwadar (Balochistan) to location beyond Shadi Kaur River.
- Establishment of horizontal control in Survey of Pakistan Grid coordinates using dual frequency GPS equipment.
- Carrying out of topographical survey of 200m wide strip of the proposed route alignment.
- Carrying out survey of the river crossings (two medium size rivers) and other natural water courses around 9 in number, plus 3<sup>rd</sup> party crossing e.g. water lines, power lines, roads and highways etc.



GPS Base Station



Topographical data acquired via RTK mode





## SHAGHARTHANG HYDROPOWER PROJECT

### NEAR SAKARDU – BALTISTAN

- Establishment of Basic Survey Control Stations at Project component sites
- Weir Site, Power House, Head Race Tunnel, Surge Tank etc.
- Access road survey  $\approx$  28 km – mountain road



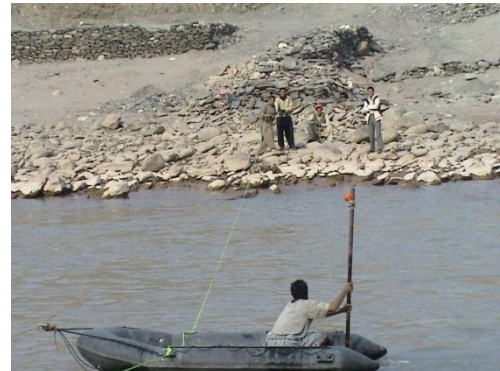


## PROJECT SHEET

Project Name: Patrind Hydropower Project (150 MW) - 2010  
Project Client: Sunyoung Engineering - Korea  
Project Location: PKP & AJK - Pakistan  
Time Frame: October 2007 –January 2010  
G&ES Fees: 1,936,000 Rs.

### Scope of Work;

- Establishment of survey control using GPS
- River Cross Sections Jhelum River 11 number
- River Cross Sections Khunar River 6 number.
- Topographic Survey of Intake and Power House Sites (337 hectares) 1:500 with 1 m C.I.
- Survey Report





## PROJECT SHEET

Project Name: GPS Control at New Bong Escape Hydroelectric Project

Project Owner: Lairab Hydro

Project Location: Mangla Dam (AJK) – Pakistan

Client Name: WESCO-Mirpur (AJK) - Pakistan

Time Frame: October- 2009

### Scope of Work::

- Establish GPS Survey Control in the project area (length 16 km).
- EDM Traverse Control (length 5 km)
- Topographic Survey 1:1000 (i.e. 100,000 m<sup>2</sup>)





## PROJECT SHEET

Project Name: As Built Survey of Lake City Raiwind Road - Lahore

Project Owner: The Lake City Holding (Pvt.) Ltd., Lahore

Project Location: Raiwind (Lahore)r – Punjab. Pakistan

Client Name: The Lake City Holding (Pvt.) Ltd., Lahore

Time Frame: May - 2009

### Scope of Work::

- Establish Survey Control Stations (12 No.) in the project area.
- Topographic Survey 1:1000 (1970 acres)
- Computer aided mapping.





## PROJECT SHEET

Project Name: Power Transmission Lines – NJHP to Rawat (110 km) & Ghakhar Sub Stations (235 km) – AJK & Punjab  
Project Client: NTDC (WAPDA) - Islamabad  
Project Location: Azad Jammu & Kashmir and Punjab - Pakistan  
Time Frame: April 2009 – July 2010  
G&ES Fees: 10,950,000 Rs.  
Joint Venture: Baraqaab and Geomatics and Engineering Services (Pvt.) Ltd. Lahore

### Scope of Work;

- Establishment of H & V survey control.
- Preliminary Route of the two transmissions lines for NTDC approval.
- Strip survey of the transmission lines route.
- Tower locations fixation.
- Preparation of transmission line drawings.
- Survey Report





## PROJECT SHEET

Project Name: New Gwadar International Airport – Gwadar - Pakistan

Project Owner: Civil Aviation Authority (CAA) – Karachi - (Pakistan)

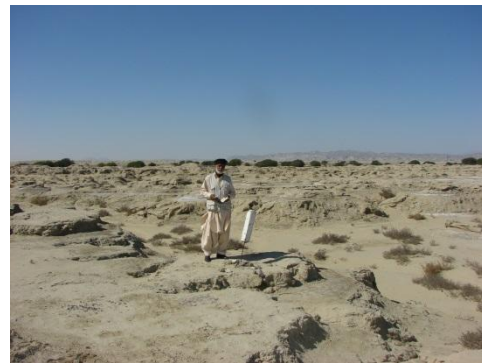
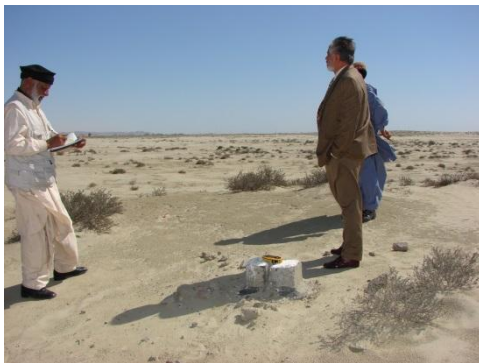
Project Location: Balochistan Province - Pakistan

Client Name: Civil Aviation Authority (CAA) – Karachi - (Pakistan)

Time Frame: February 2008 – May 2008

### Scope of Work;

- Establishment of horizontal and vertical control stations in the project area.
- Topographic survey of 4300 acres land of the New Airport.
- Computer aided mapping at 1:2000 with 0.5 meter contour interval.
- Establishment of boundary markers at 40m apart along the periphery of the airport land.





## PROJECT SHEET

### GUDDU BARRAGE – SINDH

HYDROGRAPHIC SURVEY OF THE BARRAGE AND GEOTECHNICAL INVESTIGATIONS ON THE LARGE SAND BAR LOCATED ON THE LEFT SIDE OF THE RESERVOIR CLOSE TO THE BARRAGE STRUCTURE



Local boat fitted with Echo Sounder and GPS



GPS Antenna with Barrage Structure in the distance



Manual boring for soil samples



Manual boring for soil samples



GPS Master Station set up one of the abutments



Total station work on the Barrage Bank





## PROJECT SHEET

Project Name: Kheyal Khwar Hydropower Project

Project Owner: Water Power Development Authority – Lahore (Pakistan)

Project Location: NWF Province - Pakistan

Client Name: Kheyal Khwar Consultants – Lahore (Pakistan)  
(Laymeyer International – Germany and NDC  
Consultants – Lahore, Pakistan)

Time Frame: June 2007 – September 2007

### Scope of Work;

- Checking of existing Survey control stations
- Establishment of horizontal and vertical (12km) control stations
- Topographic Survey of Weir Site & Reservoir Area (31 hectares) 1:500 with 1 m C.I.
- Topographic Survey Power House & Surge Tank area (12 hectares) 1:200 with 1 meter contour interval (C.I.).
- Topographic Survey Tunnel Alignment (8 km) 1:1000 C.I. 1m.
- Topographic Survey Access Road 6.5 km 1:1000 C.I. 1m.
- Kheyal Khwar Cross Sections 6 number.
- Computer aided mapping and maps printing.





## PROJECT SHEET

Project Name: Rahim YAr Khan – T.M.P. – Lodhran National Highway (225 Km)

Project Owner: National Highway Authority (NHA) – Islamabad (Pakistan)

Project Location: Punjab Province - Pakistan

Time Frame: May 2006 – September 2006

Client Name: National Highway Authority (NHA) – Islamabad (Pakistan)

### Scope of Work;

- Establishment of horizontal and vertical control stations at approximately one kilometer interval.
- Topographic survey of 100 m wide corridor of the existing two carriageways and additional land of right of way on either side.
- Computer aided mapping at 1:1000 with one meter contour interval.
- Structural Inventory of all the existing drainage and other structures on the highway. Preparation of detailed report.
- Pavement condition survey and Preparation of detailed report.
- Geotechnical investigations with borehole at approximately one kilometer interval and preparation of detailed report.





## DASU HYDROPOWER PROJECT

### KHYBER PAKHTUN KHAWA

- Establishment of Basic Survey Control Stations at Project component sites
- Topographic survey of project component sites and infrastructure development sites, road surveys, river cross sections etc.





## PROJECT SHEET

Project Name: AZGARD9 Resort Site Kallar Kahar

Project Owner: AZGARD9 Ltd. Lahore

Project Location: Kallar Kahar – Punjab. Pakistan

Client Name: AZGARD9, Lahore. Pakistan

Time Frame: June 2006

### Scope of Work:

- Establish Survey Control Stations in the project area.
- Topographic Survey 1:1000 C.I. 1m. (70 acres).
- Computer aided mapping





## PROJECT SHEET

Project Name: Gabral Kalam Hydropower Project  
Project Owner: Swat Hydro Limited – Lahore (Pakistan)  
Project Location: Swat District (NWF Province) - Pakistan  
Client Name: Swat Hydro Limited – Lahore (Pakistan)  
Time Frame: June 2006 – September 2006

### Scope of Work;

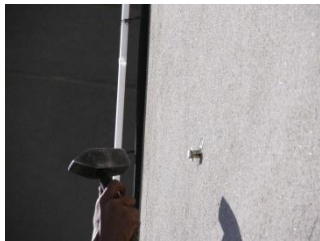
- Checking of existing GPS control stations
- Establishment of horizontal and vertical (20 km) control stations in the project area.
- Topographic Survey of Weir Site (128 hectares) 1:500 with 1 m C.I.
- Topographic Survey Power House & Surge Tank area (200 hectares) 1:500 with 1 meter contour interval (C.I.).
- Topographic Survey Workers Camp (360 hectares) 1:1000 1 m C.I.
- Topographic Survey Access Adit route (40 hectares) 1:1000 1m C.I.
- River Cross Sections 13 number.
- Power House Access Road 4 km 1:500 1m C.I.
- Computer aided mapping and maps printing.





## PROJECT SHEET

### VERTICALITY CHECKS ON TALL BUILDINGS IN ISLAMABAD POST OCTOBER 2005 EARTH QUAKE



Ref. bolt being fixed on the bldg. face



Habib Bank Building



Margala Towers



Margala Towers



NIC Building



Instrument being set up for measurement of NIC Bldg



OGDC Building Towers



Instrument being set up for measurement of OGDC Bldg



## PROJECT SHEET

Project Name: Munda Dam Multipurpose Hydropower Project

Project Owner: AMZO Corporation – Maryland - USA

Project Location: North Western Frontier Province - Pakistan

Client Name: AMZO Corporation – Maryland - USA

Time Frame: October 2004 – August 2005

### Scope of Work;

- Establishment of horizontal and vertical control stations in the project area.
- Topographic survey of 6.5 sq. km. area of the main dam sites:
  - Main Dam Area
  - Main Dam Abutments
  - Spillway area
  - Power House Site and Tailrace.
  - Strip downstream to the Munda Canal Head Works.
- Computer aided mapping at 1:1000 with one meter contour interval.
- Swat River Cross Sections.
- Digitization of the existing maps sheets of the reservoirs area.





## PROJECT SHEET

Project Name: North Turnak Canal (Extension) – Kandhar (Afghanistan)

Project Owner: Irrigation Department - Provisional Government of Kandhar (Afghanistan)

Project Location: Kandhar Province - (Afghanistan)

Time Frame: October 2004

Client Name: Afghan Archensurs – Kandhar (Afghanistan)

### Scope of Work;

- Processing of field survey data in x, y, z format.
- Computer aided mapping and contouring of the project area.
- Planning North Turnak(Extension) Canal's alignment and designing the canal extension (20 Km).
- Preparation of design drawings and of bill of quantities.







## PROJECT SHEET

Project Name: Topographic Survey ( $\approx$  30 hectares) of site for proposed 400 MW Balloki Combined Cycle Power Project

Project Owner: Orient Power Company Pvt. Ltd. Lahore

Project Location: 55km south of Lahore at Balloki – Punjab. Pakistan

Client Name: DECON, Lahore. Pakistan

Time Frame: March 2004

Reference Datum: Survey of Pakistan (SOP) BM at Irrigation Department Guest House at Balloki Head Works.  
E 3301400.3 m N 786911.8 m Elev. 192.38 m

### Scope of Work::

- Construction of permanent survey stations at site.
- Establishment of horizontal control through EDM traversing and vertical control through leveling and check leveling routine.
- Topographic survey using total station and producing digital mapping at 1:1000 with 1 m contour interval and





## PROJECT SHEET

Project Owner: Care Taker Committee of Sundar Sharif Shrine

Project Location: Sundar Sharif, South of Lahore – (Punjab) - Pakistan

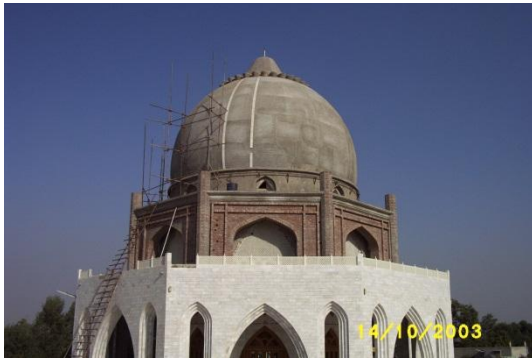
Time Frame: January 2004

Client Name: Architect, Lahore. Pakistan

Reference Datum: Local

### Scope of Work:

- Establish base line using total station.
- Measurement of Shrine Dome and develop cross sections.
- Determine whether the dome is constructed symmetrical around its vertical axis or not.
- Topographic survey using total station of the shrine and the surrounding area for location of buildings and other physical features.



# CVs of Key Personnel



## CURRICULUM VITAE

- Name of Person: **KASHIF WAHEED MIR**
- Position in the Company: Director Technical/Overseas
- Name of the Company: Geomatics and Engineering Services Pvt. Ltd.
- Nationality: American/Pakistani
- Date & Place of Birth: June 17, 1972; Tarbela, Pakistan
- Profession: Civil Engineer
- Specialization: Transportation/Airport Engineering
- Registration Number with Pakistan Engineering Council: Civil 18762
- Affiliations:
  - Member, American Society of Civil Engineers (ASCE)
  - Member, Pakistan Engineering Council (PEC)
  - Member, Aircraft Owners & Pilot's Association (AOPA)

## KEY QUALIFICATIONS

Practicing Civil Engineer / Transportation Engineer.

Seventeen years of design and field experience of working on projects in Pakistan and USA in the following general aspects of the profession:

- Geometric design of highways and roads
- Airport Planning, Design and Construction Management of General Aviation and Commercial Aviation airport projects of various sizes
- Planning and design of housing colonies
- Soil/Material Testing and Geotechnical Engineering on various projects

## EDUCATION

| Name of Institution   | Year | Degree/Diploma |
|---|------|----------------|
| Virginia Polytechnic Institute and State University, Blacksburg, Virginia (USA) | 1996 | B.Sc. Degree   |

## POST GRADUATE TRAINING

Participated in a six week short course on "Landslides and Slope Stability" held at the Punjab University, Lahore, Pakistan in collaboration with Kent State University, Ohio. (December 1999-January 2000).

## CERTIFICATIONS & TRAININGS:

- *Continuous Inlet Design*, ABT, Inc on January 23, 2014
- *Electronic Access Control Seminar* by Ingersoll Rand Security Technologies on October 4, 2012
- *Sika Repair & Protection of Concrete Seminar*, August 7, 2012
- *Stabilizing Stream Banks: An Introductory Workshop*; Practicing Institute of Engineering Inc on November 2, 2011
- *Thinking Beyond the STORM – A workshop on the storage and Treatment of Runoff in Municipalities*; The Practicing Institute of Engineering Inc on June 4, 2008
- *Upgrading Airports to New Engineering Design Standards & Practices Seminar*, ASCE Metropolitan Section on February 20, 2008

- *New Generation Aircraft Seminar*, ASCE Metropolitan Section on February 05, 2005

## **WORK EXPERIENCE:**

May 2014 – Present (Full time basis)

**Geomatics & Engineering Services (Pvt) Ltd**, Lahore, Pakistan

*Director, Technical and Overseas*

G&ES is Pakistan's only Chartered Land Survey firm. Since its inception in 2003 I have worked as Director Technical/Overseas remotely from NY (USA) but on a full time basis since May 2014. As Director Technical/Overseas, I undertake the following responsibilities:

- Overseeing and promoting of the Engineering and Technical activities undertaken on by our project staff.
- Supervising the engineering process, providing support and guidance to the technical staff during the design and bidding phases for projects.
- Providing proactive engineering solutions to the project team, meeting statutory, technical and system compliance.
- Coordinating with clients and G&ES staff for project planning and execution.
- Wrote white paper on Runway 04-22 Pavement Condition at Sialkot International Airport (SIAL), January 2017.

January 2004 – May 2014 (Remotely)

**Geomatics & Engineering Services (Pvt) Ltd**, Lahore, Pakistan

*Director, Technical and Overseas*

Worked as Director of G&ES remotely while residing in USA from April 2004 through May 2014.

January 2010 – Present

**CADDWORX**, White Plains, New York, USA

*CEO*

I founded and registered this company with Westchester County, New York (USA) in 2010 which specializes in providing services in the following fields:

- Project Management,
- Logo Designing,
- Website Design, Development and Consulting,
- Graphics,
- Software Solutions, Mobile Apps and Game Design
- Computer Aided Design (CAD) and 3D rendering for architectural drawings

With a branch office in Lahore (Pakistan), CADDWORX caters to offshore and local clients.

December 2007 – June 2014

**Westchester County Department of Public Works (DPW)**, White Plains, New York, USA

*Civil Engineer*

I worked at the Westchester County Department of Public Works and Transportation as an Associate Engineer. This gave me an opportunity to apply my civil engineering knowledge and work experience to road and highway design projects. Westchester County also owns the Westchester County Airport (KHPN) and this afforded me the opportunity to apply my airport engineering/planning knowledge and experience on civil design projects at KHPN. Some of the projects I worked on while at Westchester County included:

- Site Engineer at the Taxiway "L" Rehabilitation Project, Westchester County Airport, White Plains, New York
- Hangar 6 Pavement and Blast Fence design and construction supervision, Westchester County Airport, White Plains, New York

- Airport Perimeter Security Fence design, Westchester County Airport, White Plains, New York
- Perimeter Road and Security Fence Realignment at Westchester County Corrections Facility, Valhalla, New York
- Design of Slope Rehabilitation along North County Trailway, Yorktown Heights, New York
- Hanger "B" Regrading Project, Westchester County Airport, White Plains, New York
- Design Engineer for the sidewalks and other ancillary work at Westchester County Airport, White Plains, New York
- Post Road Rehabilitation Design & site inspection, White Plains, New York
- Hartsdale Road Rehabilitation Design, Westchester, New York
- Virginia Road Rehabilitation Design, Greenburgh, New York
- North Broadway Rehabilitation Design, White Plains, New York
- Hilltop Hanover Pipeline Project, Yorktown, New York
- Ardsley Road Rehabilitation Project, White Plains, New York
- Croton Point Park Maintenance Building, Westchester, New York
- North Avenue Rehabilitation Project, White Plains, New York

September 2004 – December 2008

**DY Consultants**, Roslyn Heights, New York, USA

*Senior Civil Engineer*

DY Consultants is an award-winning aviation planning and engineering consulting firm. They provide professional services to municipal airport owners, state agencies, airport authorities, military groups and private owners.

My civil engineering education and aviation experience as a pilot gave me the essential tools and knowledge to work on various airport planning/engineering (civil) design projects at a number of airports in the New York, New Jersey, Connecticut and Pennsylvania (USA).

As part of the design process worked out construction schedules and schedules to bid out the respective projects as well as coordinate and conduct pre-bid, pre-construction meetings. Some of the projects worked on with DY Consultants include:

- Delta Airlines Terminal 2 & 3 at JFK Airport, New York; Apron Rehabilitation and Design Project, New York
- Radiant Deicing Facility at JFK Airport, New York
- Air National Guard Helicopter Apron Design at Rochester International Airport, New York
- Trenton-Mercer Regional Airport, New Jersey; Design of Rehabilitation of Taxiways A, C & J Rehabilitation Project, New Jersey
- Sky Manor Airport, Pittstown, New Jersey, Design of Runway 7 End Grading and Stabilization Project, New Jersey
- Sky Manor Airport, Pittstown, New Jersey, Design of the Runway 7 Extension Project, New Jersey
- Hammonton Municipal Airport, Hammonton, New Jersey, Design and Construction Management of Aircraft Parking Apron Project, New Jersey
- Planning and Design of EMAS (Engineered Materials Arrestor System) at New England Groton Airport, Connecticut
- MALSR Project at Capital City Airport, Harrisburg, Pennsylvania
- Trenton Robbinsville Airport, Robbinsville, New Jersey, Design and Construction Management of Aircraft Parking Apron Project & Airfield Signage Project, New Jersey
- Woodbine Municipal Airport, Woodbine, New Jersey, Design and Construction Management of Runway 12-30 Rehabilitation, New Jersey
- Worked on preparation of Contract Documents and Specifications for various projects including the ones listed above
- Member of the Recruitment Committee at DY Consultants

June 1999 – April /2004

**NESPAK** (National Engineering Services of Pakistan), Lahore, Pakistan

*Senior Engineer* (Highway Design)

National Engineering Services Pakistan (Pvt) Limited (NESPAK) is Pakistan's premier engineering consulting firm. Its international stature is well established and it enjoys the reputation of being one of the top engineering consultancy organizations in Asia and Africa and is ranked amongst the world's top 200 consulting firms.

Projects worked on while at NESPAK include:

- Geometric Design and Review of the Pindi Bhattian-Multan (M-4) Motorway (Approx. 180km), Pakistan
- Geometric Design of the Basha Dam Hydropower Project site roads, NWFP, Pakistan
- Geometric Design and alignment of 10 bridges approaches on the Mansehra-Naran Road, NWFP, Pakistan
- Prepared and made presentation to the Secretary Communications and Works Department for the Lahore and Rawalpindi Underpasses Project, Pakistan
- Geometric Design and Geotechnical/Hydraulic Reports for the Japanese Assisted Rural Roads Construction Project Phase-1 for roads in Districts Lahore and Sialkot, Pakistan:
  - Badiana-Motra Road (18.0 km) in District Sialkot (Pakistan)
  - Kingra-Morcha Road (10.0 km) in District Sialkot(Pakistan)
  - Sialkot-Aimenabad Road (10.0 km) in District Sialkot(Pakistan)
  - Minhala-Narwar Road (6.0 km) in District Lahore(Pakistan)
  - Hudiara-Padhana Road (8.0 km) in District Lahore(Pakistan)
  - Green Town-Hudiara Drain Road (5.0 km) in District Lahore(Pakistan)
- Geometric Design of roads in the Parkview Housing Society, Lahore, Pakistan
  - Plan and Profile Drawings
  - General Drawings
- Faisalabad Roads Rehabilitation Project, Faisalabad, Pakistan
  - Plan and Profile Drawings
  - General Drawings
- Raheem Yar Khan-Trinda Mohammad Pinah Road Project (85 km), Pakistan
  - Completed preliminary design details for main carriageway using Eaglepoint RoadCalc and AutoCAD
  - Completed geometric design of junctions at 2 bypasses along the alignment of the project.
  - Prepared the bill of quantities for flyovers and interchanges
  - Marking of locations of various drainage structures along the motorway
  - Finalized the locations of various road signs along motorway and interchanges
  - Prepared and reviewed of general as well as other plan and profile drawings for the project
- Karachi-Hyderabad Motorway (M-9) Project (135km), Pakistan
  - Completed preliminary design details for interchanges, flyovers and main carriageway using Eaglepoint RoadCalc and AutoCAD
  - Prepared the bill of quantities for flyovers and interchanges
  - Marking of locations of various drainage structures along the motorway
  - Finalized the marking of locations of various road signs along motorway and interchanges
  - Prepared and reviewed of general as well as other plan and profile drawings for the project

January 2001 – December 2001

**CADDWORX**, Lahore, Pakistan

*CEO/Engineering Manager*

Managed an engineering drafting company which specialized in preparation of CAD drawings, 3D renderings using 3-D Studio Max and architectural drawings received from various clients in USA.

June 1998 – June 1999

**Associated Consulting Engineers (Pvt) Ltd**, Lahore, Pakistan

*Junior Engineer*

Worked as a site engineer at the Ghazi-Barotha Hydropower Project, Barotha, District Attock, Pakistan (Headponds & Earthworks Section)

Duties included:

i. Excavation and Care of Water

- Checked the Contractor's Program daily to ensure proper implementation and supervision.
- Managed record of changes of physical conditions that occurred during excavation progress.
- Checked the Contractor's dewatering arrangements at site and all data regarding number and size of pumps, pumping duration and effects on water table and slopes.
- Monitored and recorded the daily activities of work at site

ii. Embankments & Other Assignments

- Supervised clearing and grubbing work completion before placement any fill in any reach.
- Ensured fill material meets the specified requirements laid down in the Contract.
- Completed and prepared record of all fill layers on QA forms.
- Provided technical/administrative assistance to the Resident Engineer as needed from time to time.

July 1997 – November 1997

**Terracon Consultants Inc.**, Nashville, TN

*Staff Engineer*

Material Testing - Performed the following:

- Compressive strength, slump and air content of concrete (ASTM C109, C143, C231 and C138)
- Specific gravity and density of asphalt (ASTM D70).
- Standard and Modified Proctor (ASTM D698 & D1557) for soils.
- Certified in soil density testing by nuclear methods (ASTM D5195)

Drilling and Geotechnical:

- Monitored soil investigation and sampling by auger borings (ASTMD1452) and rotary rock coring (ASTM D2113)
- Worked as drill helper and monitored mud rotary drilling
- Completed geotechnical engineering study for 1.88-acre development site in Shelbyville, Tennessee
- Supervised pile load test (ASTM D1143) setup and driving inspection at Metro Waste Water Treatment Plant, Nashville, Tennessee
- Worked on various geotechnical engineering reports based on soil samples obtained from drilling and soil testing

Environmental:

- Prepared environmental site assessment reports for Nortel/MFS Network Technologies (Sprint Tower sites) and Boston Market restaurants at various sites in Tennessee.
- Supervised Grouting and installation of water monitoring wells.

August 1996 – July 1997

**ATC Associates Inc.**, Nashville, TN

*Staff Engineer*

Same as Terracon Consultants Inc.



**COMPUTER SKILLS:**

- Land Desktop 2010 for engineering drawings preparation
- Autoturn 5.0 for vehicle (aircraft) movement at an airport
- Autocad for engineering drawings preparation
- Eaglepoint Roadcalc 14 for Highway Design work
- SoftDesk8.0 for preparation of survey topo drawings
- Microsoft Office Suite
- Microsoft Project
- Various software for web development/design

**ADDITIONAL INFORMATION:**

Other interests:

- Founding Member Lahore Four Wheel Drive Club, Lahore, Pakistan
- Secretary, Council of International Student Organizations at Virginia Tech (Spring 1995-1996)
- President, Pakistan Students Association at Virginia Tech (Fall 1993)
- Have completed 65 hours of flight time towards a FAA Private Pilot License (USA).

# Certifications & Registrations

# PAKISTAN ENGINEERING COUNCIL

Registration No: **CONSULT/1486**

Date of Registration: **21-02-2011**



Serial No **12958**  
PEC-4A

## CERTIFICATE OF REGISTRATION OF PAKISTANI CONSULTING ENGINEER

(UNDER PAKISTAN ENGINEERING COUNCIL ACT 1976)

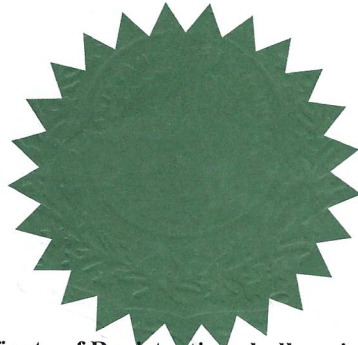
This is to certify that M/s **GEOMATICS & ENGINEERING SERVICES (PVT) LTD**  
Address **G-176, MODEL TOWN, LAHORE-54700** have been registered as Consulting  
Engineers at Serial No **CONSULT/1486** of the Register of Pakistan Engineering Council  
with following particulars:-


Type of Ownership (021,022,023,024) **(PRIVATE LIMITED COMPANY)**

Field of Specialization

(Project-profile Code Nos.) **1201,1203,1204(i),1205(i),[1215(ii)(FOR SURVEYS & FEASIBILITY  
STUDY ONLY)], 1235(SIX ONLY)**  
**(FOR CIVIL ENGG WORKS ONLY)**

Date of Issue:  
**26/08/2019**



  
Registrar  
Pakistan Engineering Council,  
Islamabad

### Note:

1. This Certificate of Registration shall expire on **30th June 2020** and will be renewed on payment of the required fee before **31st July, 2020**.
2. Description of project profile codes is shown on reverse.

## PROJECT PROFILE CODES

- |   |   |
|---|---|
| <p>1201 Public Buildings &amp; Offices(ii) Commercial Buildings &amp; Office (iii) Residential Buildings &amp; House (iv) Hotels &amp; Motels (v) Hospitals, Medical Facilities, Laboratories, Medical research (vi) Educational Facilities &amp; Complexes (vii) Recreation and sports Facilities stadium (viii) Libraries, Museums Galleries.</p> <p>1202 Industrial economics policy and planning (ii) Industrial projects development and appraisal.</p> <p>1203 Urban developments, housing estates(ii)Industrial estates industrial complexes (ii) Urban roads and surface drainage.</p> <p>1204 Urban sewerage and water supply (ii) Solid wastes collection and disposal (iii) Water treatment plants (iv) Sewage treatment plants.</p> <p>1205 Irrigation system, hydraulic structures (ii) Dams, Reservoirs, Tunnels (iii) Salinity control and land reclamation Agricultural drainage (iv) Dikes, levees, Embankments (v) Ground water development and irrigation (vi) Water resource appraisal/use.</p> <p>1206 Water Transmission Lines.</p> <p>1207 Hydroelectric power stations</p> <p>1208 Thermal power stations (ii) Power transmission and distribution systems.</p> <p>1209 Nuclear plants, Nuclear research.</p> <p>1210 Renewable energy sources and systems.</p> <p>1211 Coal mining processing, Gasification.</p> <p>1212 Petro- chemicals Refineries.</p> <p>1213 Oil and gas pipelines (ii) Oil &amp; gas development, storage, Transmission and Distribution System</p> <p>1214 Railways and railway bridges.</p> <p>1215 Tunnels, Sub-ways Rapid transit (ii) Highways, Bridges, Tunnels(iii) Transportation system services.</p> <p>1216 Airports.</p> <p>2017 Ports, Harbours, Marine terminals (ii) Shipyards, Dockyards, Ship breaking yard, (iii) Breakwaters, Revetments, Beach Protection.</p> <p>2018 Material handling systems, conveyors, Sorters (ii) Dry materials storage Reclaim systems (iii) Liquid storage and Reclaim systems.</p> <p>1219 Communication systems, Radar navigation aids (ii) Telephone, Telegraph, Telex(iii) Broadcasting systems (Radio &amp; TV)</p> | <p>1220 Energy planning conservation and development.</p> <p>1221 Mining and mineral exploration and development.</p> <p>1222 Land resources appraisal/use.</p> <p>1223 Agro industries/Food processing.</p> <p>1224 Forestry.</p> <p>1225 Fisheries.</p> <p>1226 Rural Development and social infrastructure.</p> <p>1227 Farm mechanization, seeds processing.</p> <p>1228 Botanical gardens.</p> <p>1229 Zoological gardens.</p> <p>1230 Livestock development and animal husbandry.</p> <p>1231 Landscaping and horticulture.</p> <p>1232 Health systems. Planning. Evaluation and Research (ii) Environment planning and protection.</p> <p>1233 Manpower development (ii) Population planning (iii) Social welfare and community development.</p> <p>1234 Chemicals, Ceramics, Mineral products industry (ii) Engineering industry (iii) Electrical and electronic industry (iv) Transport equipment industry (v) Cement industry (vi) Textile industry (vii) Basic metal industry, Metal products (viii) Fertilizer industry (ix) Chemical Plants.</p> <p>1235 Surveying, valuation and loss assessment.</p> <p>1236 Pre-shipment inspections.</p> |
|---|---|

### CODES FOR TYPE OF OWNERSHIP

- |     |   |                         |
|-----|---|-------------------------|
| 021 | - | Individual              |
| 022 | - | Sole Proprietor         |
| 023 | - | Partnership             |
| 024 | - | Private Limited Company |

GOVERNMENT OF PAKISTAN  
Ministry of Defence  
SURVEY OF PAKISTAN

Serial No. 78



Provisional Registration Certificate  
(Under Surveying and Mapping Act 2014)

This is to certify that **M/S "Geomtics and Engineering Services (Pvt.) Limited"**

Address **G 176, Model Town, LAHORE.**

is **provisionally** registered under registration No. **SOP/19004** in category **S-3**

with Survey of Pakistan subject to the following conditions:-

- (i) Security clearance from concerned agency.
- (ii) Registration of surveyor/ assistant surveyor/ associate surveyor of firm/ organization

This registration is valid for one year.



Date of Issue — **30--04-2019**

Registrar,  
Survey of Pakistan, Rawalpindi,  
Tel: +92 51 9290206, Fax: +92 51 9290207

GOVERNMENT OF PAKISTAN



CERTIFICATE OF INCORPORATION

(Under section 32 of the Companies Ordinance, 1984 (XLVII of 1984))

Company Registration No. 12563/20030302

I hereby certify that "GEOMATICS AND ENGINEERING SERVICES  
(PRIVATE) LIMITED"

// // //

is this day incorporated under the Companies Ordinance, 1984 (XLVII of 1984) and

that the company is limited by Shares

Given under my hand at LAHORE

this 18th day of March,

two thousand and three.

Fee Rs. 5,200/-



JOINT

( ZAHOR AHMAD )  
REGISTRAR OF COMPANIES

CRO-1

NO. JRM/19547 dt. 18/3/03

Book No.B 07824

QDP/7.5/MSD/F-04

Serial No.B 782396

# MEMBERSHIP CERTIFICATE

MEMBERSHIP NO: 55416- C

Name & address of Chamber The Lahore Chamber of Commerce & Industry  
XXXXXXXXXX

11 Shara-e-Aiwan-e-Sanat-o-Tijarat, Lahore.

*(Affiliated with the Federation of Pakistan Chambers of Commerce & Industry)*

**CERTIFIED** that M/s GEOMATICS AND ENGINEERING SERVICES (PVT) LTD

*(name and address of Member Firm / Company)*

G-176 MODEL TOWN LAHORE

G.S.T. No. .... N.T.N. No. 1759429-4

is a member of this Chamber Since 10-Feb-2005  
XXXXXXXXXX



**THIS CERTIFICATE** shall be valid upto the 31 MAR 2020 unless  
*(date)*

otherwise notified to the NTN / GST Registration authority / Scheduled Bank concerned.

Given on this 25 day of Jan 2019

Signature of Secretary General.....

Countersigned by.....

**FAHEEM-UR-REHMAN**  
*(name and designation)*  
Vice President 2018-2019

