

# S. Ghosh & Associates Pvt. Ltd

An IS/ISO 9001 – 2008 Certified Company: Serving Since 1985

Civil Engineering Consultant and Project Executor



## **FIELDS OF WORK & EXPERTISE**

Geotechnical Engineering & Consultancy

Geophysical & ND Testing

Foundation Testing

Engineering Survey

Soil Stabilization / Ground Improvement

Restoration of RCC Structures & Waterproofing Work

RCC Bored Piling & Construction of OHR / UGR

Construction of RCC Bridge, Check Dam

## ABOUT US

We are an IS/ISO 9001:2008 certified multidisciplinary engineering consultancy/contractor firm. We started our journey in 1985 and in the last 30 years we have been able to establish ourselves as a leading consulting group in India in various engineering value additions like, Geotechnical & Geophysical Engineering, Construction and ground improvement, Surveying etc. We have successfully completed over 2600 projects across India.

## SGAPL TEAM

SGAPL has a strong and dedicated team of more than 50 people from various professional fields like Civil, Geotechnical and foundation Engineering, Construction and Piling, Engineering Survey, Management and Finance etc. We have a hierarchical corporate team that ensures smooth operations and on-time deliveries of our contracts. For more on our offerings, get in touch with us and we would be glad to assist.

## GEOTECHNICAL ENGINEERING

Geotechnical Investigation is a part of Civil Engineering which deals with the technical behavioral properties of earth related materials. A Geotechnical investigation project ideally begins with a survey of underlying materials and their physical, mechanical and chemical properties. SGAPL holds market leadership position across India in organized geotechnical investigation sector. We are one of the leading Geotechnical Engineering Companies in India and are capable of providing all related engineering value additions ranging from Field Investigations, Field Testing, Laboratory Testing, ND Testing and Analysis as well as Foundation Consultancy, Construction and Piling. We have our own Soil Mechanics Laboratory located at R. N. Tagore Road, Makhla, Uttarpara (Near Dankuni), Hooghly, where testing is conducted on soil, rock and water samples. We are IS/ISO 9001:2008 certified for engineering qualities.



## **Field Exploration and Testing**

- Different types of Boring & Drilling Through Soil & Rock
- Trial pits with large Undisturbed Sampling, Bulk Sampling
- Pocket Penetrometer Test
- Standard Penetration Test
- Dynamic Cone Penetration Test
- Static Cone Penetration Test
- Vane Shear Test
- Plate Load Test
- Cyclic Plate Load Test
- Pile Load Test
- Electrical Resistivity Test
- Seismic Refraction Test
- Cross Hole Shear wave Test
- Piezometer Test
- Block Vibration Test
- California Bearing Ratio Test
- Percolation Test (In Trial Pit)
- Permeability Test in Soil (Falling & Constant Head Pumping-In)
- Permeability Test in Rock (Single Packer & Double Packer)
- Pump Out Test (In Soil & Rock)
- Benkelman Beam Deflection Test

## **Laboratory Testing**

- Triaxial Shear Test
- Undrained with Pore Pressure Measurement
- Consolidated Drained, Unconfined
- Compression Test
- Direct Shear Test

- Vane Shear Test
- Proctor Density Test
- Compaction and Consolidation Tests
- Index Properties of Soil
- Consistency Limits of Soil
- Swelling Pressure & Swelling Index
- Permeability Tests
- California Bearing Ratio
- Crushing Strength
- Co-efficient of Softening of Rocks
- Point Load Test
- Chemical Test of Soil & Water Samples for determining pH value and concentration of Ions

### Geotechnical Consultancy

- Foundation Study for different types of structures at different sub-soil conditions.
- Study on different ground improvement techniques.
- Study of grout-ability for different types of soil.
- Seismic Analysis, liquefaction potential study of sub-soil.
- Slope-Stability Analysis for Embankments, Dams.
- Design of sheet piles, different types of retaining walls etc.

### MAJOR GEOTECHNICAL INVESTIGATION WORK CARRIED OUT IN LAST 3 YEARS

Sl. No	Client	Job Description	Job Value (Lacs)	Year of Execution	Execution Status
1.	Civil Engineering Dept, Jadavpur University	Topographical Survey & Geotechnical Investigation Work for proposed Cyclone Centres at 25 nos. of sites in 5 blocks of 24 Pgs (S) districts, West Bengal under ICZMP Project.	19.25	2013-14	Completed

Sl. No	Client	Description	Job Value (Lacs)	Year of Execution	Execution Status
2.	Kolkata Metropolitan Development Authority (KMDA)	Sub-soil Investigation work in connection with the construction of proposed RCC ESR at 6 different sites under Bally Municipality.	6.79	2013-14	Completed
3.	NH Planning & Design Division, PWD (Roads), Bhabani Bhaban, Kolkata, West Bengal.	Topographical Survey and Geo-Technical Investigation Work for Multipurpose Cyclone Shelter (MPCS) for 10 Sites at Different Locations of Coastal Areas of 24 Pgs.(S) under NCRMP.	7.50	2014-15	Completed
4.	NH Planning & Design Division, PWD (Roads), Bhabani Bhaban, Kolkata, West Bengal.	Topographical Survey and Geo-Technical Investigation Work for Multipurpose Cyclone Shelter (MPCS) for 8 Sites at Different Locations of Coastal Areas of 24 Pgs.(S) under NCRMP.	6.40	2014-15	Completed
5.	NH Planning & Design Division, PWD (Roads), Bhabani Bhaban, Kolkata, West Bengal.	Topographical Survey and Geo-Technical Investigation Work for Multipurpose Cyclone Shelter (MPCS) for 8 Sites at Different Locations of Coastal Areas of 24 Pgs.(S) under NCRMP.	6.30	2014-15	Completed
6.	EMC LIMITED, KOLKATA	Pheripheral/ Contour Survey & Soil Investigation Work - 765/400 KV GIS Sub-Station at Vemagiri, Andhra Pradesh under POWER GRID CORPORATION OF INDIA LIMITED.	7.71	2014-15	Completed

Sl. No	Client	Description	Job Value (Lacs)	Year of Execution	Execution Status
7.	NABARD Consultancy Services (Wholly-Owned Subsidiary of NABARD), Kolkata.	Structural Design including Land-Survey and Soil Investigation for Proposed FCI Godown at 8 Different Sites of Different Districts of West Bengal.	11.5 (Approx)	2014-15	Completed
8.	Rajpur Sonarpur Municipality, 24 Pgs (S), West Bengal.	Sub-soil Investigation work in connection with the construction of proposed RCC OHR / UGR at 21 different sites under Rajpur Sonarpur Municipality.	16.5 (Approx)	2015-16 and 2016-17	Ongoing
9.	ABB Ltd., Salt Lake, Sec-V, Kolkata: 91	Pheripheral/ Contour Survey & Soil Investigation Work for 220 / 132 / 33KV New GIS Stations at Hatidah, Bihar under Bihar Grid Company Ltd., Patna.	2.85	2016-17	Ongoing

## FOUNDATION TESTING

SGAPL offers services for various Foundation Testing like Dynamic Load Test (High Strain) on pile (DLT), Integrity Test (Low Strain) test on pile (PIT and PET), Crosshole Sonic Logging Test (CHUM) on RCC Pile, Static Compression Load, Lateral Load, Pullout Test on RCC Pile.



### List of Foundation test

- Dynamic Load Test (High Strain) on pile (HSDLT)
- Integrity Test (Low Strain) on pile (PIT / PET)
- Crosshole Sonic Logging Test on pile (CHUM)
- Vertical Static Compression Load Test on pile
- Lateral Load Test
- Pullout Test

## MAJOR PILE DYNAMIC LOAD TEST CARRIED OUT IN LAST 3 YEARS

i) ESIC Project(Medical college & Hospital) at Joka, Kolkata.(Under L&T and EPIL)

- ii) RCC Overhead reservoir at Barrackpur, North 24-Pgs. (Under KMWSA)
- iii) Jair Bridge(Road Bridge), Pandua, Hooghly.(Under Irrigation & Waterways Directorate, Govt. of W.B)
- iv) RCC overhear reservoir at Ward no. 5 of Bally Municipality (Under KMDA)
- v) Road Bridge at Rajarbathan, Singur, Hooghly. (Under Irrigation & Waterways Directorate, Govt. of W.B)
- vi) NTPC Thermal Power Plant Project at Salakati, Assam.
- vii) CPWD project of Kendriya Bihar (Phase-ii) at Belgharia Expressway, Kolkata.
- viii) Six different Road Bridge over South Swaraswati River at six different site of Hooghly and Howrah. (Under Irrigation & Waterways Directorate, Govt. of W.B).
- ix) PWD-WB project of proposed Academic Building of Aliah University, Park circus, Kolkata-14.
- x) NHAI project of Road Bridge at NH-34, Krishnagar–Baharampore section under NHDP Phase -III.
- xi) DVC project of Road Bridge at Birbhampur, Durgapur.
- xii) Hospital Building, Jalpaiguri District Hospital, PWD, Jalpaiguri Division

**Besides the above job on high strain dynamic load test, we have also conducted static load tests on several important project sites throughout the country.**

## GEOPHYSICAL TESTING

SGAPL offers services for various Geophysical Tests like Seismic Refraction, Cross Hole Shear Wave, Down Hole Shear Wave, Dipole–Dipole Sounding, Ground Utility, Vertical Electrical Sounding, and Underground Water Survey.



### List of Geophysical Tests

- Seismic Refraction Test
- Cross hole Shear Wave Test
- Down hole Shear Wave Test
- Electrical Resistivity Test
- Vibration Parameters Measuring

### MAJOR JOBS EXECUTED WITHIN THE LAST 3 YEARS

Sl. No.	Description of job	Site Location	Year of Execution	Principal Client	Type of Execution	Job Done Through
1	Seismic Crosshole Survey for Proposed Construction of Indore IIT Campus, Indore, Madhya Pradesh.	Indore, Madhya Pradesh	2014-15	MECON Limited	3 <sup>rd</sup> Party investigation	Geotechnical Engineers Consortium; 24/1, Moore Avenue, kolkata–700040

Sl. No.	Description of job	Site Location	Year of Execution	Principal Client	Type of Execution	Job Done Through
2	2 nos. Seismic Crosshole Tests for Proposed Construction of Captive Power Plant under Andhra Sugar Ltd., Rajahmundry, Andhra Pradesh.	Rajahmundry, Andhra Pradesh	2014-15	Andhra Sugars Limited	3 <sup>rd</sup> Party investigation	Aimil Limited; Bengaluru
3	Detail Seismic Crosshole Survey for Proposed Plant Extension of Assam Petrochemical Ltd.	Dibrugarh, Assam	2015-16	Assam Petrochemical Ltd.	3 <sup>rd</sup> Party investigation	SKM Geosurvey; BK-130, Salt Lake, Sector-II, Kolkata-700091
4	1 no. Seismic Crosshole Test for Design of Machine Foundation at TATA Steel Plant, Kalinganagar, Jajpur District, Odisha.	Kalinganagar, Jajpur District, Odisha	2015-16	TATA Steel	3 <sup>rd</sup> Party investigation	Creative Studio; Tankapani Road, Bhubaneswar, Odisha-18.
5	10 nos. Seismic Crosshole Test for 5×800MW YADADRI THERMAL POWER STATION at Veerlapalem village, Dameracherla Mandal, NALGONDA	Nalgonda, Telangana	2016-17	Telangana State Power Generation Corporation Limited	3 <sup>rd</sup> Party investigation	Aimil Limited; Delhi

## ND TESTING

SGAPL offers services for various ND Testing like Ultrasonic Pulse Velocity Test, Rebound Hammer Test, Rebar locator, Half Cell Potentiometer Test (CANIN+), Resistivity Test, Chemical Test, Concrete Core collection and its Strength test, Vibration measurement on structure and ground.



### List of ND tests

- Ultrasonic Pulse Velocity Test
- Rebound Hammer Test
- Rebar locator
- Concrete Core collection and its Strength test
- Vibration measurement on structure and ground
- Half Cell Potentiometer Test
- Resistivity Test
- Chemical Test

**MAJOR JOBS OF ND TESTING EXECUTED WITHIN THE LAST 3 YEARS**

<b>Sl. No.</b>	<b>Client</b>	<b>Description of Job</b>	<b>Job Value in Lacs</b>	<b>Year of Execution</b>
1.	Tata Tin Plate, Jamshedpur	Structural Health Assessment by Non-Destructive Test at Column Foundation of Golmuri Works At Jamshedpur Baryeard	1.12	2013-14
2.	Macnan Consultancy Pvt. Ltd.	Structural Health Assessment of RCC based Machine Foundations for Iron-Ore Handling Plant of ESSEL Mining, Barbil, Odissa	1.58	2013-14
3.	Electrosteel Steels Ltd. Bokaro, Jharkhand	Non-Destructive Test on Vertical RCC foundation of Bokaro WRM Plant	0.74	2014-15
4.	United Breweries Ltd., Kalyani	Strutural Health & Stability Assessment of the UT Roof & Building by ND Testing.	1.52	2015-16

## SOIL STABILIZATION BY GROUTING/ RESTORATION OF RCC STRUCTURE / DRILLING / WATER PROOFING

Where poor ground conditions make traditional forms of construction expensive, it may be economically viable to attempt to improve the engineering properties of the ground before building on it. This can be done by reducing the pore water pressure, by reducing the volume of voids in the soil, or by adding stronger materials. SGAPL provided all kind of ground improvement.



### MAJOR JOBS EXECUTED

SI No	Client	Description of Job	Job Value in Lacs
1	National Project Construction Corporation Ltd. (N. P. C.C), Khuga Dam Unit, Churachandpur, Manipur	Curtain Drilling and Grouting in Earthen Dam at Khuga, Manipur	8.32
2	Superintending Engineer, Jaldhaka Hydrel Project, West Bengal State Electricity Board	Drilling and Grouting Work at Downstream of Desilting Chamber of Jaldhaka Hydrel Project.	6.29
3	J. Thomas & Co. (P) Ltd. 11, R.N.Mukherjee Road, Nilhat House, Kolkata.	Soil Stabilization, Water Proofing of Wall, Roof Treatment With Modified Shet And Renovation of Boundary Wall.	8.71
4	Sarada Mines Pvt. Ltd. Thakurani Iron Ore Mines Ltd. Barbil, Keonjhar District, Orissa	Strengthening and Filling, Boring and Grouting Work at Wash Plant	23.50

Sl. No	Client	Description of Job	Job Value in Lacs
5	MCNALLY Bharat Engineering Co. Ltd., Eco Space Campus 2B 11/F (Old Plot No. AA 11/B1K 3), New Town, Rajarhat, Kolkata. Pin: 700 156.	(A) Improvement to Filled up Earth below the Floor Slab of Clarified Water Storage Tank and One Clarifloculator for 1 X 270 MW TPP , Bela Nagar Site (Cement & Fly Ash Free Supply)	25.00
		(B) Improvement to Filled up Earth below the Floor Slab of Clarifloculator including Curtain Grout Along The Periphery (Cement and Fly Ash Free Supply )	9.00
6	Jadavpur University Kolkata -700 032	Soil Stabilization Work Surrounding the Pump House Pit of Garden Reach Water Works by Grouting with Mixture of Cement , Bentonite and Fly Ash Slurry within the Soil.	70.00
7	Superintending Engineer, Circle, TT Sector, K.M.D.A	Rehabilitation and Retrofitting Work of The Existing Ambedkar Bridge at E.M. Bypass, Kolkata	62.34
8	Additional G.M. (Civil), RITES Ltd., Project Co-Ordinator (SBV Head) for & on Behalf of K.M.C	Special Grouting by Cement along With Fly Ash including all Men, Machineris and Materials to Resists the Settlement of Road Profile on Road Over Bridge of Dhakuria, Kolkata	63.66

Sl. No.	Client	Description of Job	Job Value in Lacs
9	Jadavpur University Kolkata -700 032	Soil Stabilization Work for the Raw Water Pump House at Water Treatment Plant within Uluberia Municipality by Grouting of CementaAnd Bentonite / Admixture Slurry within the Soil	28.00
10	The Assembly of God Church Vocational School. Kolkata	Soil Stabilization and Strengthening of Structural Members of the Assembly of God Church School at Tangra, Kolkata	21.09

S GHOSH & ASSOCIATES PVT LTD

## ENGINEERING SURVEY

Engineering Surveying is defined as those activities involved in the practice and application of surveying principles for the location, design, construction and maintenance and operation of engineered projects. In the past SGAPL has completed more than 30 jobs for various engineering surveys like Topographical, Hydrographical & Route Surveying with the use of state-of-art equipments like DGPS, Hand GPS, and Total Station & Digital Levels.



### Field exploration and Testing

- Topographical Survey with DGPS, GPS & Total Stations
- Leveling by Digital Level & Auto Level instruments
- Hydrographic Survey
- Profiling, Contouring, Leveling, Curve setting, etc
- Route alignment for roads, bridges, pipelines, power lines etc
- As built survey for developed city regions
- Quantity survey after construction

## RCC BORED PILING AND CONSTRUCTION OF OHR / UGR

SGAPL do execute the job of RCC bored piling work since the early 1985. A few years later SGAPL has also started commissioning (design and construction on turnkey basis) RCC over head / elevated service reservoir and underground reservoir. We are now one of the leading Piling & water tank construction Companies in west Bengal (mostly at Kolkata) and are capable of providing all related construction value additions ranging.



### MAJOR JOBS EXECUTED WITHIN THE LAST 3 YEARS

Sl. No	Client	Job Description	Job Value (Lacs)	Year of Execution	Execution Status
1.	ABB Ltd., Salt Lake, Sec-V, Kolkata-91	500 MM Dia. Piling Work for Extension of 400/220KV Sub-Station at Subhasgram, West Bengal.	127.41	2013-14	Completed
2.	ABB Ltd. Salt Lake, Sec-V, Kolkata: 91	Civil Work including Road Work for Propsoed Extension of 400/220KV Switchyard of PGCIL at Subhasgram, (W B.)	280.00	2013-14	Completed
3.	Executive Engineer K.C.M.D, W/S Sector, <b>KMDA,</b>	Detailed Design, Drawing, Const. & Commissioning of <b>1800 Cum. Capacity</b> RCC Elevated Service Reservoir Including Pile Foundation on Turnkey Basis under Dumdum Municipality JNNURM Project Ward No. 29. Staging Height – 20m	289.70	2013-14	Completed

Sl. No	Client	Job Description	Job Value (Lacs)	Year of Execution	Execution Status
4.	Executive Engineer (Div-X) <b>K.M.W &amp; S.A,</b>	Detailed Design, Drawing, Const. & Commissioning of <b>Capacity 2.03 M.L</b> RCC Elevated Service Reservoir including Pile Foundation at Rameswar Nagar under JNNURM, Uluberia, Phase-II. Staging Height - 20m.	332.0	2014-15	Completed
5.	Executive Engineer Hooghly Irrigation Div.	Protection of the Eroded Right Bank of River Mundeswari at Udna in P.S Khanakul Under Hooghly Irrigation Div. under RIDF – XVIII.	478.0	2015-16	Completed
6.	Executive Engineer K.C.M.D, W/S Sector, <b>KMDA</b>	Detailed Design, Drawing, Const. & Commissioning of <b>Capacity 2850 Cum.</b> RCC Elevated Service Reservoir including Pile Foundation on Turnkey Basis at Kazi Para Barasat under Barasat Municipality JNNURM Project Ward No. 2 Staging Height – 20m.	493.05	2015-16	Completed
7.	Executive Engineer (Div-X) <b>K.M.W &amp; S.A</b>	Detailed Design, Drawing, Const. & Commissioning of <b>Capacity 2.80 M.L.</b> RCC Elevated Service Reservoir including Pile Foundation at Rahara Bazar within Ward No.5 Under Khardah Municipality Staging Height – 20m,	512.4	2015-16	Completed
8.	L&T Ltd., 11 <sup>th</sup> Floor, Sector-V, Salt Lake, Under West Bengal Medical Services Corporation Ltd.	750mm Dia. RCC Bored Piling Work for Sub- Divisonal Hospital at Chanchal, Malda, West Bengal. <b>(Materials Free Issue)</b>	50.56	2015-16	Completed

Sl. No	Client	Job Description	Job Value (Lacs)	Year of Execution	Execution Status
9.	L&T Ltd., 11 <sup>th</sup> Floor, Sector-V, Salt Lake, Under West Bengal Medical Services Corporation Ltd.	600mm Dia. RCC Bored Piling Work for Sub-Divisional Hospital at Raiganj, Uttar Dinajpur, West Bengal <b>(Materials Free Issue)</b>	32.54	2015-16	Completed
10.	Executive Engineer K.C.M.D / Water Supply Sector, <b>K.M.D.A</b> , Bagajatin STP Complex, Kolkata-700094	Detailed Design, Drawing, Const. & Commissioning of <b>2800 Cum Capacity</b> RCC Elevated Service Reservoir <b>including Pile Foundation</b> at Ward No. 01 Near FCI Godown and Jessore Road Railway Crossing, Barasat.	484.40	2016-17	Under Execution

**TECHNICAL RESOURCES****Key Personnel of the Organization**

<b>Sl. No</b>	<b>Name</b>	<b>Designation</b>	<b>Qualification and/or Experience</b>
1.	Mr. S. Ghosh	Managing Director	M.C.E, M.I.G.S., F.I.E
2.	Mr. A. K. Sinha	Senior Consultant	B.E. (Civil), F.I.E. (44 Years of Experience)
3.	Mr. Uttam Ghosh	General Manager	B. Sc. (30 Years Experience)
4.	Mr. S. R. Roy	Senior Consultant	B.E. (Civil) (38 Years of Experience)
5.	Mr. S. K. Saha	Associate Consultant	B.E. (Civil), B.Sc. (Physics), MIE, MIGS
6.	Mrs. Someli Ghosh	Assistant Engineer	B. Tech. (Electrical)
7.	Mr. Shubham Ghosh	Assistant Engineer	B. Tech (Civil)
8.	Mr. D. Bhattacharjee	Consulting Engineer	Diploma (Civil) (40 Years Experience)
9.	Mr. Suman Ghosh	Junior Engineer	Diploma (Civil)
10.	Mr. Pappu Pal	Junior Engineer	Diploma (Civil)
11.	Mr. Dinesh Halder	Manager (Testing)	B.Sc. (Physics)
12.	Mr. Haraprasad Ghosal	Junior Engineer	Diploma (Civil)
13.	Mr. P. C. Ghosh	Sr. Supervisor	39 Years Experience
14.	Mr. R. Santra	Sr. Supervisor	25 Years Experience
15.	Mr. Ashit Pal	Sr. Supervisor	19 Years Experience
16.	Mr. T. Bose	Sr. Supervisor	19 Years Experience
17.	Mr. S. Chandra	Supervisor (Q.A./Q.C.)	16 Years Experience
18.	Mr. P. Chatterjee	Sr. Supervisor	16 Years Experience

### List of Soil Investigation Equipment

Field Equipment	Nos.	Laboratory Equipment	Nos.
Hydraulic Rig	04	Tri-axia Shear Test Equipments	02
Boring Rig	15	Direct Shear Test Equipments	02
Drilling Rig	12	Consolidation Test Equipments	02
Cross hole Seismic Equipments	01	Vane Shear Test (Motorized)	01
Down hole Seismic Equipment	01	Unconfined Compressive Strength	01
Pressure Meter Equipment	01	Odometer	02
Static Cone Penetration Equipments	02	Rapid Moisture Meters	02
Seismic Refraction Equipments	01	Proctor's Test Equipment	01
Field Density Equipments	03	Cone Penetrometer	01
Block Vibration Test Equipment	01	Swelling Pressure Machine	01
Electrical Resistivity Test Equipments	02	Mechanical Sieve Shaker	01
Dynamic Cone Penetration Test Equipments	04	California Bearing Ratio Test Equip	01
Pump-out Test Equipment	01	Permeability Test	01
California Bearing Ratio Test Equipments	03		
PLT & CPLT Equipment	02		
Vane Shear Equipment	02		
Permeability Test Equipment	03		

### List of Geophysical Test Equipment

Sl. No.	Description	Make	Numbers
1.	Seismic Refraction Test (24 Channels)	Pasi Geophysics, Italy	2 Set
2.	Crosshole Seismic Test	Pasi Geophysics, Italy	2 Set
3.	Downhole Seismic Test	Pasi Geophysics, Italy	2 Set
4.	Earth Resistivity Testing Equipment	Geosensor, India	1 Set
5..	Vibration Meter	Rion Co. Ltd, Japan	1 Set

### List of ND Test & Foundation Testing Equipment

SI No.	Description	Make	Numbers
1	Low Strain Pile Integrity Test (PET)	Pile Test.Com Ltd, Israel.	1 Set
2	Low Strain Pile Integrity Test (PIT)	Pile Dynamics Inc., USA.	1 Set
3	Crosshole Sonic Logging Test (CHUM)	Pile Dynamics Inc., USA.	1 Set
3	Dynamic Load Test Equipment	Pile Dynamics Inc., USA.	1 Set
4	Schmidt Hammer	Proceq, Switzerland.	1 Set
5	Ultrasonic Pulse Velocity Test (UPV)	Proceq, Switzerland.	1 Set
6	Profoscope (Rebar Locator)	Proceq, Switzerland.	1 Set
7	Half Cell Potentiometer (CANIN+) Test	Proceq, Switzerland.	1 Set
8	Concrete Resistivity Test	Proceq, Switzerland.	1 Set
9	Concrete core cutting and testing setup	Bosch & HEICO	1 Set
10	Setup for Chemical Test on Concrete	-----	-----

### List of Engineering Survey Equipment

SI No.	Description	Make	Numbers
1	Theodolite With Accessories	Lawrence & Mayo And Wilson.	5 Sets.
2	Level With Accessories (Dumpy And Tilting) And Spot Level	Lawrence, Mayo And Wilson.	5 Sets.
3	Electronic Total Station (Set610) With Accessories All Complete Set.	Sokkia	2 Sets.

### List of Piling & Construction Equipment

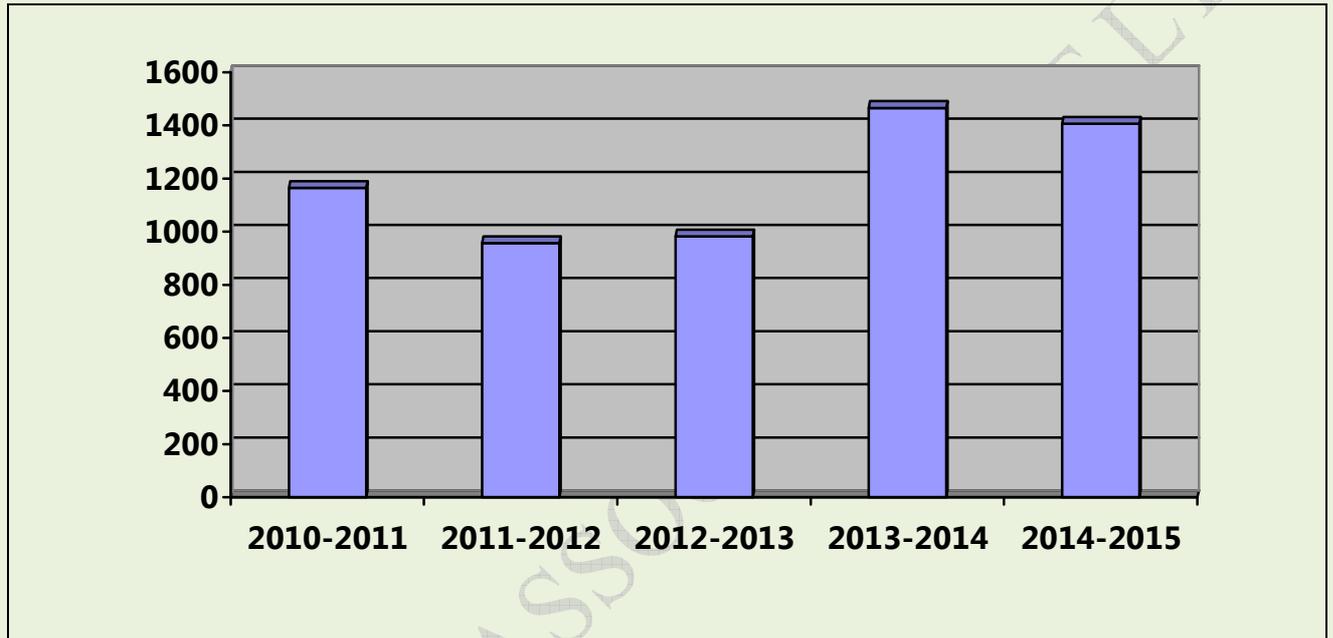
SL NO.	DESCRIPTION	NUMBERS
1	5 MT & 3 MT CAPACITY SINGLE DRUM WINCH MOUNTED WITH 4YDA AND 3YDA AIR COOLED RUSTON DIESEL ENGINE INCLUDING TRIPOD, BAILOR, CASING PIPE, FORCE CUTTER, TREMMIE PIPES WITH ALL ACCESSORIES COMPLETE SET. (RANGE 450 MM DIA. TO 1200 MM DIA.)	
	3 M.T WINCH	3 MT -- 14 NOS.
	5 M.T. WINCH	5 MT -- 6 NOS.
2	STATIC LOAD TESTING EQUIPMENTS INCLUDING PRESSURE GAUGES, DIAL GAUGES AND OTHER ACCESSORIES COMPLETE UP TO 500 M.T.	4 SETS.
3	DYNAMIC LOAD TEST EQUIPMENT (PILE DYNAMIC ANALYZER WITH CAPWAP) (MADE IN U.S.A)	1 SET
4	CONCRETE MIXTURE MACHINE (10 / 7)	6 NOS.
5	CONCRETE CUBE TESTING MACHINE	4 SETS

### List Of Drilling and Grouting Equipments

SL NO.	DESCRIPTION	NUMBERS
1	DRILLING MACHINE INCLUDING CRADLE : a) C. P.            ----        ----            70 b) C. P.            ----        ----            120 c) COMMANDO 0 - 22 mm ELECTRIC d) HITACHI        0 - 35 mm ELECTRIC	3 NOS. 2 NOS. 2 NOS. 2 NOS.
2	GROUTING PUMP (TRIPLEX)...	6 NOS.
3	GRINDING MACHINE (AIR)	2 NOS.
4	TRIPOD FOR PNEUMATIC DRILLING IN ROCK.	2 SETS.
5	ROTARY CORE DRILLING MACHINE FOR ROCK WITH TRIPOD, DRILL ROD, AND CORE BARREL AND OTHER ACCESSORIES COMPLETE SET.	3 SETS
6	DRILLING ROD 1/ ¼ DIA. WITH 6MM / 10MM BORE.	250 R.M
7	PACKER SET (FOR WATER TEST & GROUTING).	6 SETS.
8	MISCELLANEOUS TOOLS & TACKLES, DRILL BITS. ETC.	COMPLETE SET.
9	GUNITING MACHINE WITH WATER TANK AND OTHER ASSEMBLY COMPLETE.	1 SET.
10	EPOXY GROUTING SETS WITH COMPRESSOR.	2 SETS.
12	HELICAN PROGRESSIVE CAVITY OPEN MOUTH GROUT PUMP WITH GEAR MOTOR OF DIFFERENT CAPACITY AND TWIN GROUT MIXED PREPARATION TANK OF 300 LITER CAPACITIES.	
	a) WITH 10 HP GEAR MOTOR (FLUID : CEMENT+ WATER +SAND, CAPACITY 10 Cum PER HOUR)	1 SET
	b) WITH 15 HP GEAR MOTOR (FLUID : CEMENT+ WATER +SAND, CAPACITY 18 Cum PER HOUR)	1 SET

## FINANCIAL PERFORMANCE

### Revenue in Lac



## QUALITY CERTIFICATE

  
**Certificate of Registration**

This certificate has been awarded to

**S. Ghosh & Associates Pvt. Ltd.**  
162 B, A.J.C. Bose Road, Suit No. 204, Kolkata, West Bengal, 700014, India

in recognition of the organization's Quality Management System which complies with

**ISO 9001:2008**

The scope of activities covered by this certificate is defined below

**Provision of Civil Engineering with Geotechnical Consultancy and  
Project Execution**

Certificate Number:	Date of issue: (Original)	Date of issue:
53746/A/0001/UK/En	15 September 2012	15 September 2015
Issue No:	Expiry Date:	
2	14 September 2018	

Issued by:  On behalf of the Schemes Manager

If there is any doubt as to the authenticity of this certificate, please do not hesitate to contact the Head Office of the Group on [info@urs-certification.com](mailto:info@urs-certification.com).  
URS is a member of United Register of Systems (URS) Ltd, Ferry House, Derby Road, Southwark, S11 3DZ, UK. Company Registration no. 5088466

### **Registered Office**

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