

Curriculum Vitae

ALIREZA SHARIFI SOLTANI

Geotechnical Engineering Consultant- Independent

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Surname: Sharifi Soltani

Name: Alireza

Date of Birth: 25/Feb./68

Language Proficiency: Fluent in English both
in writing and speaking

Nationality: Iranian

Place of Birth: Tehran

Marital Status: Married
(children under 18: 1)

EDUCATIONAL DEGREE

- PhD candidate in geotechnical engineering at Azad University, Science and Research Branch.
- Master of Science in Soil Mechanics and Foundation Engineering from “Amirkabir University of Technology- Tehran Polytechnic”, Tehran, Iran, 2015
- Bachelor of Science in Civil Engineering from “Iran University of Science and Technology”, Narmak, Tehran, Iran, 1989.
- Diploma in Mathematics / Physics from “Alborz College”, Tehran, Iran, 1984
- English diploma from “National Institute of English Language (N.I.E.)”, Tehran, Iran, 1980

Key Technical Qualifications

More than 25 years of experience in project management, commercial and technical management, design, execution and supervision of:

- Geotechnical investigations (on- and off-shore)
 - Drilling on-shore and off-shore (on jack-up barges and pontoon barges, maximum 12 m water depth), rotary wash-boring, continuous coring, percussion drilling, down-the- hole, Odex, big diameter pilot borings, etc.)
 - Field and laboratory tests performance and analysis
 - Interpretative geotechnical reports including determination and judgment of the physical, mechanical and chemical soil properties for design by analyzing the field and laboratory tests. Analysis on soil layers and soil properties, bearing capacity, spread and deep foundation design, settlement analysis, liquefaction analysis, slope stability, etc.

- Ground improvement
 - Dynamic Compaction
 - Dynamic Replacement
 - Jet Grouting (3-phase and 1-phase methods) as cut-off elements in dam body and underpinning structures
 - Deep Mixing Method (DMM)
 - Staged construction, preloading and surcharging
 - Stone column construction by vibratory techniques (VC/VR): wet-top-feed and dry-bottom-feed methods
 - Soil stabilization by nailing and anchoring
- Cut-off walls and other dam sealing elements
 - Diaphragm Walls
 - Soil-cement Slurry Walls
 - Plastic Concrete Cut-off Walls
 - Asphalt Concrete Core
- Piling
 - Driven, CFA, Bored-and-cast-in-place piles and pile loading tests
- Tender Documents
 - Preparation and evaluation of tender documents (ground improvement, cut-off elements and geotechnical investigation contracts)
- Specification Writing
 - Technical specification writing for specialist contractor and geotechnical investigation contracts

REGISTRATIONS & MEMBERSHIPS

- Secretary of ground improvement technical committee of the Iranian Geotechnical Society- IGS
- Member of the “International Society for Soil Mechanics and Geotechnical Engineering- ISSMGE”, ID No. IRI0600173
- Former member of the IGS board of directors
- Registered Geotechnical Engineer, authorized by Management and Planning Organization- Tehran Province, Grade I
- Member of the Iranian Construction Engineers Organization Province of Tehran

WORK EXPERIENCES

- April 2014 to present

Geotechnical Engineering Consultant- Independent

Independent technical, commercial and contractual consultant.

- April 2013 to April 2014

Pars Geometry Consultants. # 01, 17th Ave., Kordestan South, Tehran, Iran.

Discipline Leader and head of the geotechnical site supervision teams. Responsibilities include technical management, commercial management and contractual management of the geotechnical projects.

- September 2011 to April 2013

SOILS ENGINEERING SERVICES Specialist Contractors and Consulting Engineers (SES). # 04, Zhubin cul-de-sac, North Dastour, Gheitarieh, Tehran, 19317, Iran.

Head of the "ground improvement" and "geotechnical Investigation" departments. Responsibilities include technical management, commercial management and contractual management of projects.

- July 2008 to August 2011

COWI-LARSEN JV, Development of Muscat Airport, Muscat, Sultanate of Oman.

Senior geotechnical engineer and resident geotechnical engineer. Ground improvement design, supervision and technical evaluation. Duties included: Preparation of ground improvement technical specifications and tender documents, contractors technical evaluation, design and supervision of ground improvement, interpretation of geotechnical investigation results. Ground improvement techniques include: "dynamic compaction, stone column construction by dry bottom feed method, densification by impact roller, preloading surcharging. Supervising the ground improvement activities at site (including the trial and the production phases), analysis and evaluation on: field stone column construction Lutz records, control test results, preloading /surcharging settlement and pore pressure records.

- August 1990 to July 2008

SOILS ENGINEERING SERVICES Specialist Contractors and Consulting Engineers (SES). # 135, Zhubin cul-de-sac, North Dastour, Gheitarieh, Tehran, 19317, Iran.

Senior project manager, technical manager, designer, as well as bid and contract preparation for variety of projects.

-November 1989 to August 1990

-SHAHEDIN CONSTRUCTION CO. LTD. 8th Narenjestan, Farmanieh, Tehran , Iran.

- Site Engineer- residential complex site.

Papers, Publications and Contributions

- Sharifi Soltani A and Litkouhi S (2010) Asphalt Concrete Core of Meijaran Dam in Brief. Dam Engineering Journal **XX(3)**: 235-253.

- Majdi A, Sharifi A and Litkouhi S (2007) Mitigation of liquefaction hazard by dynamic compaction. Journal of Ground Improvement, Thomas Thelford **11(3)**: 137-143.
- Majdi A, Sharifi A and Litkouhi S (2004) Dynamic Compaction to Mitigate the Liquefaction Potential for Caspian Sea Republics Oil Swap Project at Neka, Mazandaran Province, Iran. In Proceedings of the 5th International Conference on Ground Improvement Techniques. Kuala Lumpur, Malaysia, pp. 65-72.
(This paper received Highly Commendable Paper Award from Pennine Ltd.).
- Sharifi A and Litkouhi S (2001) Standard Penetration Test (SPT) Instruction for Testing and Application for Foundation Design. MPO (management and Planning Organization) 224.
- Sharifi A and Litkouhi S (2005) Quasi-Static Cone Penetration Test (CPT) Instruction for Testing and Foundation Engineering". Iran Water Resources Management Co. (a-285).
- Amini B and Sharifi Soltani A (2007) Dam foundation grouting (Ken Weaver). Translation into Persian, for Dam and Reservoir Sealing Sub-committee of the Iranian Committee on Large Dams- IRCOLD (71).
- Peer review of paper to the ASCE GSP 227
- Peer Reviewer, Canadian Geotechnical Journal- CGJ
- Peer reviewer, Geotechnical and Geological Engineering Journal
- Peer reviewer, Journal of Zhejiang University, Science A, Applied Physics and Engineering
- Peer reviewer, AGS Journal, ACTA Geotechnica Slovenica
- Sharifi Soltani A (2019) 1st Seminar on Ground Improvement, Geotechnical Investigation and Ground Improvement. Iranian Geotechnical Society- IGS, presented on June 19th, 2019.
- Sharifi Soltani A (2016) 1st Tutorial Workshop on Fundamentals of Ground Improvement, Jet Grouting Practice. Iranian Geotechnical Society- IGS presented on July 14th, 2016.
- Member of the supervisory committee on "Handbook of Dam Foundation Improvement Criteria", prepared by Tehran University, faculty of civil and geotechnical engineering.

Technical Communications

Technical exchanges in geotechnical engineering and ground improvement issues with "Dr. K. Rainer Massarsch" since 2004 and cooperating with him in Seeb Airport project in Muscat-Oman on design, preparation of the special

specifications as well as supervision of various ground improvement techniques since July 2008.

Professional Programs and IT Skills

Microsoft Office	Slide (RocScience)
ACAD	SURFER
Plaxis 2D	

ASSIGNMENTS

December 2019 to present

Atis Engineering Co.

Technical Consultant. Adviser on geotechnical investigation issues. GEG Oil Terminal, Erbil, Iraq.

November 2019 to present

ADISH Construction Co.

Technical Consultant. Review on geotechnical interpretative report, Reduction of no. of piles, specific comments on ground improvement and non-engineering fills.

February 2018 to present

Culham Construction Co.

CEO's technical, contractual and commercial consultant on ground improvement and Key wall construction. Deputy project manager. Third phase extension of Rajayi Port.

January 2018 to present

Member of the geotechnical board of review on "Publication No. 55- Construction Works Specification- Ground Improvement Section".

Client: Research Center of Road, Housing and Urban Planning

December 2011 to present

YAPMIC geotechnical engineering consultant on mining geotechnical issues.

September 2015 to present

NFC/VFB consultant for geotechnical services of Lamerd Aluminium Plant. Quality control and verification of the geotechnical investigations as well as design review and higher supervision for ground improvement and piling works (CFG and CFA piles), and Jet grouting.

October 2018 to present

DARYABANDAR Engineering Consultants

CEO's technical, commercial and contractual consultant on geotechnical issues (extracting soil parameters, breakwater stability, liquefaction analysis, ground improvement design review and evaluation, pile design and pile loading tests, staged construction design, contractual advisor, etc.).

Tonbak Port (Assalouyeh) and Amirabad Port (Mazandaran), Iran.

November 2016 to November 2018

Soils Engineering Services Specialist Contractor (SES)

CEO's technical, commercial and contractual manager on geotechnical investigation and ground improvement projects. Ground Improvement of Qeshm Heavy Crude Oil Refinery (120,000 m³ of DSM columns). Client: Pars Behin Palayesh Refinery- Qeshm Island, Iran.

July 2016 to present

Pars Kavosh Consulting Engineers (PKCE)

Design, technical and contractual management for geotechnical investigation and ground improvement projects. Design and higher supervision of ground improvement and geotechnical investigations.

June 2016 to November 2016

Lamerd Ghadir Energy & Electrical Company (LGEC)

Technical advisor for geotechnical services of Lamerd Combined Cycle Power Plant. Quality control and verification of the geotechnical investigations as well as design review and higher supervision for ground improvement and piling works (CFG and CFA piles).

April 2016 to present

Revising Iranian code 308 on geosynthetics, reinforced soil and retaining walls based on FHWA, BS, AASHTO standards as well as German and Nordic guidelines

February 2015- September 2015, Haghani Eastern border Excavation and stabilization by Nailing

MC, Excavation, drilling, nail installation and grouting as well as QC/QA.

May 2014- February 2015, Niayesh Parking Construction by Top-down Method

MC, Complementary geotechnical investigations, drilling piles and steel column/beam installations.

May 2013- April 2014 Design Control and Supervision of Iranzamin 45-meter Vertical Excavation

Controlling the excavation design, preparing the remedial design and supervision of the site works for the 45-meter Iranzamin vertical excavation

Client: SATSA Co.

February 2014- April 2014 Design Control and remedial Proposal for the Bandar Imam Oil Tanks

Controlling the geotechnical design and remedial measures for the excessive settlement of the oil tanks. Client: Bandar Imam Petrochemical Company.

January 2014- April 2014 Design and Supervision of 35-meter Vertical Excavation for Car Parking of Sharif University of Technology

The excavation design and supervision of site works for the 35-meter vertical excavation by anchoring. Client: Tehran Municipality- Region 2

May 2013- April 2014 Design Control and Supervision of 30 nos. Urban Vertical

Excavations

Controlling the excavation design and supervision of site works for 30 excavations with depths larger than 10 m by nailing/anchoring. Client: Tehran Municipality- Region 2.

August 2013- December 2013 Design Control of the KSR Desalination Plant

Controlling the excavation, ground improvement and geotechnical design of the one million cubic meter desalination plant and basin. Client: Asia Water Co.

February 2013- May 2013 Sealing the Isfahan Metro Station by jet grouting method

Sealing the northern and southern entrances of Isfahan Metro Station by construction of jet grouting columns. 1300 m of drilling and 1000 m of Jet Grouting. Client: Isfahan Metro Organization

February 2013-May 2013 Underpinning the Tabriz Metro rails by jet grouting method

Transferring the Metro rail loads to the undisturbed bearing soil layer through a collapsible fill, 1700 m of rotary drilling / Odex drilling as well as 1400 m of three-fluid jet grouting columns. Client: Tabriz Metro Organization

December 2012- February 2013 Insulation of the Abadan Hospital Excavation using Geosynthetic Clay Liner (GCL)

Insulation of the Abadan hospital excavation wall (around 200 square meter) and bottom (around 8000 square meter) by GCL, geomembrane layers and geosynthetics drains. Client: Health organization of the Iranian Oil Industry.

November 2012-May 2013 Excavation support and excavation wall sealing of Ardebil Twin Towers using DSM and JG columns and temporary anchors

Sealing a 3500 square meter deep excavation wall by deep soil mixing and jet grouting columns as well as excavation support by driven H piles and temporary anchors along with dewatering. Client: Artalatif Company.

November 2012-March 2013 Geotechnical Investigation for Genaveh Oil Tanks

Over 700 m of drilling in alluvium, performing SPT, PLT as well laboratory tests along with geotechnical interpretative report. Client: Tehran Jonoub Construction Company

May 2012-February 2013 Geotechnical Investigation for Pardis Township More than 2000 m of drilling in alluvium and rock, performing SPT, CPT, PLT as well laboratory tests along with geotechnical interpretative report. Client: Pardis International Company

December 2011-February 2012 Design of underpinning by jet grouting columns, Petropars Guest House Foundations

Transferring the foundation loads to the intact soil at the bottom through a collapsing fill by 350 jet grouting columns being constructed by one-fluid and three-fluid jet grouting systems both inside and outside the guest house.

November 2011-April 2012 Evaluation of the degree of Improvement by CPT, VST and SPT, Bandar Imam Wheat Silo Site

Evaluation of the improvement gained by periodic loading of iron ore powder. Drilling boreholes, performing vane shear tests. SPTs as well as CPT performance Client: Bandar Imam Administration

October 2011-December 2011 Pipe Jacking support against boiling sand by jet grouting method

Stabilizing the boiling sand around sewer pipes before and after pipe jacking, 4000 m of rotary drilling / Odex drilling as well as 2500 m of three-fluid jet grouting columns around 2x1.6 m sewer pipes.

December 2011-December 2012 Excavation support and excavation wall sealing of Abadan Hospital using DSM columns and permanent anchors

Sealing a 6.6 m deep excavation wall by 4000 m deep soil mixing soilcrete columns as well as excavation support by 3200 m of driven H piles inside DSM columns and 4000 m of permanent anchors together with Waling. Client: Health

Organization of the Iranian Oil Industry.

February 2011-July 2011 Ground Improvement of Eastern Marina Project, Beirut- Lebanon

Senior Technical Consultant, preparation of the technical specifications, geotechnical investigation and field/laboratory test programs as well as design of dynamic compaction for trial stage and main work. Client: SOLIDERE.

2010-August 2011 Development of Airports in Sultanate of Oman, Muscat- Ground improvement of roads and bridges, MC1 and MC4a Contracts

Resident geotechnical engineer, Supervision and technical evaluation of the ground improvement activities (735 km stone columns by dry bottom feed method), surcharging, bored-and-cast-in-place piles by CFA method, pile loading tests, pile integrity testing by Pulse Echo Method (PEM), geotechnical investigation. Client: DGSAS.

2009-2010 Development of Airports in Sultanate of Oman, Muscat- Ground improvement of runways and taxiways, GI Contract

Resident geotechnical engineer, Supervision and technical evaluation of the ground improvement activities (350 km of stone columns by dry bottom feed method), dewatering, soil replacement and geotechnical investigations. Client: DGSAS.

2008-2009 Development of Airports in Sultanate of Oman, Muscat- Design office

Senior geotechnical engineer, design of ground improvement and geotechnical investigations, preparing special specifications as well as technical evaluation of the tender documents.

2008 Hormozal Smelter Complex, Tehran, Iran

Senior project manager, design and construction of 3000 driven pre-cast RC piles along with performance of bearing tests, particle velocity and ND tests. Client: Almahdi Aluminium Smelter Complex. Engineer: FATA.

2007-2008 Underpinning Propane Tank, Kharg Island, Iran

Senior project manager, design and execution of 4,000 m of drilling and circuit grouting to mitigate the differential settlement of the Kharg Propane tank (60 m in diameter). Client: Kharg Petrochemical Co.

2007-2008 Stone Columns for Residential Buildings- Bandar Abbas, Iran Senior project manager, design and construction of more than 13 km stone columns maximum 10 m in depth for two residential complexes (two contracts). Client: Private Sector.

2007-2008 Kamandan Dam- Plastic Concrete Cut-off Wall, Azna, Iran

Senior project manager, construction of 12,000 square meter of plastic concrete cut-off wall, 1 m thick and maximum 40 m in depth.

2005-2007 Nian Dam- Cut-off Wall by Jet Grouting, Bandar Abbas, Iran

Senior project manager, design and construction of 10,000 m of drilling and jet grouting by 3-phase method as the dam cut-off element. Client: Didas Construction Company.

2005-2007 Shahriar Dam- Slope Stabilization of the Excavations by Jet Grouting, Mianeh, Iran

Senior project manager, design and construction of 20,000 m of drilling and jet grouting by 3-phase method to mitigate the staged excavation support. Client: Tablieh Construction Company.

2005-2007 Kheirabad Dam- Plastic Concrete Cut-off Wall and Dam Grouting, Nikshahr, Iran

Senior project manager, Construction of 6,000 square meter plastic concrete cut-off wall 0.8 m wide and maximum 50 m in depth as well as 15,000 m of drilling and grouting. Client: Pouyab Co.

2005-2006 Shamil Dam- Plastic Concrete Cut-off Wall, Bandar Abbas, Iran

Senior project manager, construction of 3,600 m plastic concrete cut-off wall 0.8 m in width and maximum 20 m in depth.

2005 Stone Columns for Shipyard Dry Dock- Neka, Iran

Senior project manager, design and construction of 30 km stone columns, maximum 14 m in depth for the shipyard dry dock as well as miscellaneous buildings to mitigate liquefaction hazard. Client: SADRA International.

2005-2006 Ground Improvement of Mahestan High Rise Residential Buildings by Stone Columns, Bandar Anzali, Iran

Senior project manager, design and construction of more than 29 km of stone columns maximum 12 m in depth for the Mahestan Complex residential buildings. Client: Mahestan Co.

2004-2005 Jegin Diversion Dam- Cement Slurry Cut-off Wall, Bandar Jask, Iran

Senior project manager, design and construction of 10,000 square meter cement-bentonite cut-off wall. Client: Bandar Abbas Regional Water Co.

2004-2005 Zeitoun Mall excavation Support by Deep Soil Mixing Wall and Anchors, Bandar Abbas, Iran

Senior project manager, design and construction of 6 km of soilcrete columns by DSM method along with installation of 80 anchors. Client: Shibkouh Zeitoun Co.

2004-2005 Know-how Transfer, Geotechnical Investigation and Ground Improvement of Malakeyeh Asemanha High Rise Residential Building by Stone Columns, Bandar Abbas, Iran

Senior project manager, design and construction of 5 km of stone columns maximum 10 m in depth along with know-how transfer.

2001-2003 Meijaran Dam Asphalt Concrete Core, Ramsar, Iran

Senior project manager, know-how transfer, design and construction of 5,000 cubic meter of asphalt concrete (25 km of compacted layers 0.7 m wide and 0.2

m thick). Know-how transfer was supervised by China Three Gorges Project Company (CTGPC). Client: Mazandaran Regional Water Company Co.

2001 Geotechnical Investigations for Pardis Petrochemical Co, Assalouyeh, Iran

Senior project manager, more than 2000 m of drilling and CPT (on and off-shore), field and laboratory tests as well as interpretative geotechnical reports.

Engineer: Arup.

2001-2002 Neka Refinery, Geotechnical Investigation and Ground Improvement by Dynamic Compaction Neka, Iran

Project manager, design and execution of 6 hectare dynamic compaction of fuel tanks, 60 m in diameter as well as building complexes by heavy tamping (25 t tampers, maximum drop height 25 m) along with geotechnical investigation. Client: SINOPEC.

2001-2002 BND Shipyard Complex, Ground Improvement by Dynamic Compaction Bandar Abbas, Iran

Project manager, design and execution of 2 hectare dynamic compaction of shipyard workshop as well as miscellaneous buildings by heavy tamping (18 t tampers, maximum drop height 25 m). Client: Shipyard Complex.

2000 Geotechnical Investigation- Various Projects

Project manager, design and execution of hundreds of meter drilling (on and off-shore), field and laboratory tests as well as interpretative reports.

1999-2001 Geotechnical Investigation and Ground improvement of “Tondgouyan Petrochemical Complex- Phases I and II” by Preloading, Surcharging and Prefabricated Vertical Drains, Bandar Mahshahr, Iran

Project manager, design, technical supervision and analysis of 20 hectare preloading and surcharging, maximum 18 m in embankment height with prefabricated vertical drains as well as conducting geotechnical investigations, field and laboratory tests and interpretative geotechnical reports. Client: Tondgouyan Petrochemical Company.

1999 Micro-zoning of the Greater Tehran Area, Tehran, Iran

Project manager, 2000 m of drilling maximum 150 m in depth, performing field and laboratory tests for the microzonation of the greater Tehran area. Client: Japan International Cooperation Agency (JICA).

1998 Dynamic Compaction for the Foundation of the Cooking Oil Reservoirs, Bandar Abbas, Iran

Project manager, design and execution of 1.5 hectare dynamic compaction of Cooking oil reservoirs (25 t tampers, maximum drop height 20 m). Client: Ministry of Commerce.

1996-1997 BND Refinery Water Intake Walls, Bandar Abbas, Iran

Project manager, Construction of 3,500 square meter reinforced concrete diaphragm wall and 1,000 square meter of plastic concrete cut-off wall (all 0.8 m wide and 20 m in height) using pilot boreholes, as well as installation of 130 anchors at two levels. Client: BND Refinery. Engineer: Snamprogetti.

1995-1996 Ground Improvement and Geotechnical Investigation of Administration Buildings by Dynamic Replacement, Ministry of Agriculture, Sari, Iran

Project manager, design and execution of 4 hectares dynamic replacement of the administration complex (15 t tampers, maximum drop height 20 m). Client: Ministry of Agriculture.

1991-1993 Ground Improvement and Geotechnical Investigation of Almahdi Smelter Complex by Dynamic Compaction, Tehran, Iran

Project manager, design and execution of 12 hectares dynamic compaction of the Aluminium Smelter Units (20 t tampers, maximum drop height 20 m) as well as geotechnical investigation (on and off-shore). Client: Ministry of Industries. Engineer: Wimpey Construction Ltd. and M&F Consulting Engineers.

1989-2004 Geotechnical Investigation- Various Projects

Project manager: design and execution of thousands of meters drilling, field and laboratory tests as well as preparation of interpretative geotechnical reports.