



Qualifications

Full professor of Soil Mechanics, University of Brescia

Professional Associations

Member of the Institution of Engineers of Padua since 1997 and of Belluno since 1972.

Committees

AGI (Member of the committee of the Italian association of geotechnics)

Member of the technical committee of AIPO (Agenzia Interregionale Fiume Po –the Technical committee of the river Po authority) since 1992.

Technical member and expert of “ Magistrato alle acque di Venezia” – (Venice Water authority committee for the evaluation of the projects for the city safeguard) .

Key Data

Francesco Colleselli graduated as Civil Engineer in the 1971 from the University of Padua.

His working life is shared between the academic world, as part time Professor, and his consulting job started in the 70's, mainly focused on the development and design of geotechnical related project and on highly specialized consultancy regarding soil problems.

In 2007 he started “Studio Colleselli & Partners – Ingegneria Geotecnica” a consulting firm able to follow and help the client during the design phase from the preliminary steps to the construction drawings, using state of the art software, as well as during the construction phases thanks to many years of experience on site-related problems solving.

The firm is mainly focused on the following design aspects:

- foundations
- earthworks
- embankments
- underground constructions
- retaining walls
- dewatering
- consolidation of foundation soils
- infrastructures
- maritime works
- dams
- tunnels
- pavement design

He is currently full professor of Soil Mechanics at the University of Brescia, until 1998 at the University of Palermo and until 1994 he was professor of Foundation Technology at the University of Padua. During his carer he has been author of scientific publications presented at national and international conferences, and articles published in journals in the geotechnics and foundations technology sectors.

Currently his research activity is focused mainly on the design and the analysis of banks of the Po river.

Books

“Problemi Geotecnica relativi alle arginature ed alle sponde di fiumi e canali” – (Geotechnical problems related to river and channel embankments) – 1994 CISM International Center for Mechanical Sciences

“Elementi di Geotecnica (Fundamentals of Soil Mechanics) –” 3° edizione, 2004 – Zanichelli

Publications

Selection of Publications (English issue only)

"Relationships between static penetration test results and mechanical properties of soil". Proc. 1st. E.S.O.P.T., Stockholm, Vol. I, 1974. (In collaboration with P. Previatello e G. Ricceri).

"Behaviour of an artificial slope and of natural slopes in complex formations". Proc. Int. Symp. on the Geotechnics of structurally complex formations, Vol. I, Capri, 1977.

"Geotechnical parameters for embankments and pile foundations design". Proc. 6th ECSMFE, Vol. III, Brighton, 1979. (In collaboration with P. Colombo, A. Mazzucato e M. Soranzo).

"Some Italian experiences in the mechanical characterization of structurally complex formations". Proc. 4th ISRM, VOI. I, Montreaux, 1979. (In collaboration with P. Colombo et alii).

"Design Parameters in Geotechnical Engineering". Proc. 7th ECSMFE, Discussion Session 7 on Design Parameters for Granular Soils, Vol. IV, Brighton, 1979. (In collaboration with P. Colombo e A. Mazzucato).

Compactage et comportement de deux remblais le long du Pô en matériaux limoneux et argileux". Proc. Int. Conf. on Compaction, Vol. I, Paris 1980.-Communication tardive: "Modalités constructives des

- remblais le long du fleuve Pô à Sermide".
Proc. Int. Conf. on Compaction, Vol. III, Paris 1980. (In collaboration with A. Mazzucato e L. Tripiciano).
- "Improvement of a Site by preloading". Proc. 10 th ICSMFE, Vol. III, Stockholm, 1981.
(In collaboration with A. Mazzucato e P. Previatello).
- "Improvement of Soil Foundation by vibratory Method".
Proc. 8th ECSMFE, Vol. I, Helsinki, 1983. (In collaboration with A. Mazzucato e P. Previatello).
- "Diaphragm wall panels subject to horizontal static loads". Rivista Italiana di Geotecnica, n. 3, anno XVII, 1983.
- "The seepage control in excavations and river levees".
Proc. IX ECSMFE, Vol. I, Dublin, 1987. (In collaboration with M. Soranzo).
- "Improvement of mechanical properties of soft soil by use of a preloading embankment".
II Int. Conf. on Case Histories on Geot. Eng., St. Louis, USA, 1988.
(In collaboration with P. Simonini e M. Soranzo).
- "Research on Italian peaty soils".
II Baltic Conf. on SMFE - Technical Committee on Peat. Tallin, 1988.
- "Settlement Analysis of Main Buildings in Power Plants by Means of 2D and 3D Models".
Proc. X ECSMFE, Firenze, 1991.
(In collaboration with M. Borsetto, P. Colombo, et Alii).
- "Preservation problems in historical and artistic monuments of Venice".
Proc. X ECSMFE, Firenze, 1991.
(In collaboration with P. Colombo).
- "Foundations for large embankments" Proc. of Int. Cong. on Numerical methods in Eng. and Applied Sciences, Concepcion, Chile, 1992. Barcellona, CIMNE, 1992. Part. I.
- (In collaboration with G. Cortellazzo).
- "Foundations behaviour of a levee to the Po delta". Proc. of the Symp. on Prediction Versus Performance in Geotechnical Engineering, Bangkok, 1992. Southeast Asian Geot. Soc., 1992. (In collaboration with G. Cortellazzo).
- "Behaviour of direct tower foundation on improved soil".
Proc. III Int. Conf. on Case Histories in Geotechnical Engineering, St. Louis, 1993. Rolla, Missouri, 1993, Vol. 2. (In collaboration with P. Varagnolo)
- "Behaviour of a pre-loading embankment on soft cohesive soil". Proc. XI. Southeast Asian Geotechnical Conference, Singapore, 1993. (In collaboration with G. Cortellazzo, P. Mazzalai, P. Simonini)
- "Boundary conditions in the behaviour of large embankments".
Proc. 3 th Europ. Conf. on Numerical Methods in Geotechnical Engineering, Manchester, 1994 Vol. I pp 333-339 (In collaboration with G.P. Cortellazzo)
- "Behaviour of a large fill built on clayey and peaty soils" Proc. Int. Symposium on compression and consolidation of clayey soils, Hiroshima, 1995 . Vol. I pp. 671-676 (In collaboration with G.P. Cortellazzo).
- "Preservation problems in historical and artistic monuments of Venice".
Geotechnical Engineering for the Preservation of Monuments and Historic Sites. A. Croce Memorial Symp. - Napoli 1996.
(In collaboration with P. Colombo)
- "Behaviour of a building in Venice during and after underpinning works".
Geotechnical Engineering for the Preservation of Monuments and Historic Sites.
- A. Croce Memorial Symp. - Napoli 1996. (In collaboration with G.P. Cortellazzo).
- "A Particular foundation problem on a waste fill" Proc. 4 Int. Conf. on Case Histories in Geotechnical Engineering, St. Louis, Rolla, Missouri, 1997, Vol. I (in print) -
(In collaboration with M Macoratti).
- "Behaviour of the underpinning of a building in Venice" Proc. 4 Int. Conf. on Case Histories on Geotechnical Engineering, St. Louis, Rolla, Missouri, 1997. Vol. 1 (in print) - (In collaboration with G.P. Cortellazzo).
- "Evaluation and Rehabilitation of a Movable Barrier Dam and Road Bridge". Proc. 5th Int. Conf. on Short and Medium Span Bridges, Calgary, Canada, July 1998, (In collaboration with L. Da Deppo e C. Modena).
- "Laboratory tests of an italian peaty soil" Proc. Int. Symp. on Problematic Soil, Sendai, Japan, 1998 – pp. 42-52 (In collaboration with G.P. Cortellazzo).
- "Laboratory testing of Italian peaty soils" Geotechnics of High Water Content Materials, ASTM, STP 1374, West Conshohocken, PA, 1999 (In collaboration with G.P. Cortellazzo).
- F. Colleselli - P. Colombo – "The Collapse of the Stava Tailings basins – Analysis of the event and observations" Int. Workshop on "Occurrence and Mechanisms of flows in Natural slopes and earthfills" Invited paper, Sorrento May 2003.
- R. La gioia – A. Sanzeni – F. Colleselli . "Air, water and vacuum pluvation of sand specimen for triaxial apparatus" next publication on Soil and Foundations.
- Colleselli, F. - Trevisan, S. - Russo, L. E.
Road ramps reinforced with geosynthetics in substitution of a traditional design solution. 8th International Conference on Geosynthetics – Yokohama 2006.

Prof. Ing. Francesco Colleselli

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(2006). The mechanics of an Italian

silt; an example of “transitional
behaviour”. 2006 Géotechnique 56,
No. 4, 261-271

Projects selection

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|--------------------|--|
| Date | 1977 – 1997 |
| Location | VENEZIA |
| Employer | ITALY - ENEL S.p.A. |
| Description | 1977 – Sermide power plant (general geotechnical consultancy). 1988 – Foundations for new branch offices at S. Doná di Piave - 1982 - Foundation and embankment works at power stations in Udine, Adria, Venice, Acciaiolo, Focomorto. 1992 - Design and works management for renovation of Villabona - Sacca Fisola electrical transmission line, for the lagoon stretch in the municipality of Venice. 1992/94 – Executive project and assistance to works manager in works for consolidating the foundations of Unit "A" building - Head offices in Rio Novo. 1993-1997 – Fusina thermoelectric power plant - Project design and works management of the civil works for the bottom ash dry extraction system Gr. 1-2, Gr. 3-4. 1997 - Static tests at the Versciaco plant, Sesto Pusteria dam. 1994 – Foundations for the new agency in Mestre at Borgo Pezzana. 2003 – Special foundations design and site supervision for power line on a landslide – Este – Padova |

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| Date | 1981 – 1989 |
| Location | ITALY |
| Employer | IDROVIA FISSERO-TARTARO-CANALBIANCO-PO DI LEVANTE: |
| Description | 1981/83 - San Leone locks; 1984 - Bussari locks. 1985 - Trevenzuolo locks; 1988/89 - Canda locks, repair works on the banks |

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|--------------------|---|
| Date | 1981 – 1997 |
| Location | ITALY |
| Employer | MAGISTRATO PO DI PARMA |
| Description | 1981 – New right and left banks of river Po in municipalities of Occhiobello, Malcantone, Porto Tolle and Contarina. 1983 – Bank on the Panaro at Cà Bianca di Finale Emilia; 1983 – Hydraulic flood control works on the river Crostolo; 1983 - New banking in the area of Volta Vaccari in the municipality of Porto Tolle, withdrawal of right and left banks; 1996-1997 Preliminary design relating to measures for repairing damage to the hydraulic works caused by the floods of November 1994 along the branches of the Delta. 1999 Weir over the river Panaro in municipality of Savignano – MODENA |

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|--------------------|---|
| Date | 1982 - 1996 |
| Location | ITALY |
| Employer | MAGISTRATO ALLE ACQUE DI VENEZIA – VENICE WATER AUTHORITY |
| Description | 1982 - Works for rehabilitation and watertightness of right and left banks of the Tagliamento river upstream from Latisana. 1983 - Hydraulic works on the bed of the river Noncello and repair of the shipping channel from Pordenone to the confluence with the river Meduna, in the municipalities of Pordenone and Porcia; 1986 - Hydraulic training and stabilization of the Stizzon torrential stream in the terminal stretch from Seren del Grappa to Feltre; 1987 - Repair works on the rivers Piave, Bacchiglione, Brenta and Retrone; 1989 - Works to reinforce the banks of the Guà river and Chiampo torrential stream in the municipalities of Montebello, Sarego and Lonigo; 1995 - 1997 - General consultancy on measures for safeguarding the city of Venice. |

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| Date | 1982-1984 |
| Location | ITALY |
| Employer | REGIONE BASILICATA CITTÀ' DI POTENZA |
| Description | Basento aqueduct. |

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| Date | 1984-1989 |
| Location | ITALY |

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|--------------------|--|
| Employer | CIR – RIZZI - ROVIGO |
| Description | Ministry of Public Works. Civil Engineering Board for Trieste Maritime Works - Extension of the Portorosega quay at Monfalcone - Gorizia - Allotment I and Parts I and II. |
| Date | 1984-1986 |
| Location | ITALY |
| Employer | FURLANIS COSTRUZIONI S.P.A. – PORTOMARGHERA |
| Description | 1984 Venice Port Office-New quay at the end of wharf B 1984 Venice Port Office-Static tests on quay for bulk goods terminal in reclaimed area "A" 1986 Metallotecnica Veneta S.p.A. Porto Marghera plant - New quay and new landing stage. |
| Date | 1985 – 1987 |
| Location | ITALY |
| Employer | COMUNE DI ANCONA |
| Description | 1985 - Geological and geotechnical study on safety of existing hospital buildings at Torrette, both completed and under construction, and on the stability of their south-east facing side. 1987 - Study on stabilization works on the landslides at Posatora and Borghetto and assistance for performance of the works. |
| Date | 1985 - 1990 |
| Location | ITALY |
| Employer | COMUNE DI VENEZIA: |
| Description | 1990 - Geotechnical consultancy for construction of underpass for vehicle traffic on via Terraglio at km 2+773 of the Venice-Trieste railway line. 1985 – New multi-storey garage at the Tronchetto. |
| Date | 1986-1997 |
| Location | ITALY |
| Employer | GRANDI LAVORI FINCOSIT – GENOVA |
| Description | 1986 Civil Engineering Board for Maritime Works of Bari - Punta Riso breakwater in Brindisi - Rock-fill dam and vertical wall. 1987 Feasibility study on an artificial island for a power generation plant in the northern Adriatic Sea. 1987 Works management for the State Property Office and for the materials of the Military Engineers - Contract tender and design competition for new "MAR GRANDE" harbor station in Taranto. 1992-1997 ENEL power plant in Rossano Calabro - New seaward intake works. |
| Date | 1986-1988 |
| Location | ITALY |
| Employer | DIPENTA S.P.A. – ROMA |
| Description | 1986 Autonomous Region of Sardinia Improvement, restoration and hydraulic regulation works for the fishing activities in the S. Gilla lagoon, Cagliari. 1988 La Maddalena Autonomous Section of Navy Engineers Repair and consolidation of new rock-fill quay on island of S. Stefano. |
| Date | 1987 – 1999 |
| Location | ITALY |
| Employer | AZIENDA MUNICIPALIZZATA DI VERONA |
| Description | 1987 – Loading tanks at Stedileri hydroelectric plant; 1992 – Weir over the river Adige at Chievo, Verona, urgent static consolidation works; 1990/97 – Camuzzoni industrial canal, consolidation measures at Tombetta 1 and Tombetta 2 power plants; 1997 - Speccheri dam, surface consolidation of the rock wall at the left abutment. 1998 – Camuzzoni industrial canal, construction project for the strengthening of intake construction 1999 – Camuzzoni industrial canal, conditions inspection of foundations and crossing bridges structures |

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| Date | 1988 |
| Location | ITALY |
| Employer | AUTOSTRADA MILANO-NAPOLI |
| Description | A1-A2 motorway link, Pian S. Cesareo-Section Lunghezza-S. Cesareo. |

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| Date | 1988 |
| Location | ITALY |
| Employer | AUTOSTRADA DEI TRAFORI |
| Description | Section of SS No. 32 - Gravellona Toce - Ghemme-Gattico and Gattico-Carpugnino stretches. Allotments No. 4 and No. 7. |

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| Date | 1989 |
| Location | ITALY |
| Employer | FONDEDILE – NAPOLI |
| Description | Port of Livorno – Toscana wet dock – Construction of quay on eastern bank |

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| Date | 1990 |
| Location | ITALY |
| Employer | AUTOSTRADA BRESCIA-VERONA-VICENZA-PADOVA |
| Description | Junctions for connecting the state road S.S. 11 Padana Superiore with the secondary roads S.P. 17 and 22, Lonigo-Gambellara - Enlargement for housing a third lane - Montebello Montecchio Allotment. |

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| Date | 1990 - 94 |
| Location | ITALY |
| Employer | C.P.C. STUDIO DI INGEGNERIA - PADOVA |
| Description | 1990 – Padua eastern by-pass. 1992/94 - Padua northern by-pass and related junction works. |

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| Date | 1991 - 1993 |
| Location | ITALY |
| Employer | MONTEDISON – ENICHEM S.r.l.: |
| Description | 1991/93 - Tanks, buildings and other works at the plants in Marghera and Mantova. 1992 – Geotechnical consultancy and rehabilitation project for Zones A, B and I at the Mantova plant. |

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| Date | 1991 |
| Location | ITALY |
| Employer | LAVORI MARITTIMI AND DRAGAGGI S.R.L. - VIPP LAVORI S.P.A. |
| Description | Metallotecnica Veneta S.p.A. - Completion of quay on Western Industrial Canal in Marghera (VE). |

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| Date | 1992 - 1999 |
| Location | ITALY |
| Employer | CAMPENON & BERNARD – ROMA |
| Description | S.S. No. 307 DEL SANTO: works for improvement of the stretch of state road S.S. No. 11 from Padua to Reschigliano di Campodarsego and the branch from the Cadoneghe junction to Busa di Vigonza. |

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| Date | 1992 - 1998 |
| Location | ITALY |
| Employer | MONTEDIPE S.r.l. |
| Description | 1992 - Project design and works management for improvement of ex-landfill at Malpaga in the municipality of Mira (VE). 1993 - Consultancy and works management for environmental reclamation inside Dira Area - ex Acna installation – Ceriano Laghetto (MI). 1992/98 - Executive project and works management for environmental reclamation inside BASF Italia S.p.A. area - ex Acna installation - Cesano Maderno (MI). |

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| Date | 1993 |
| Location | ITALY |
| Employer | AUTOSTRADA VENEZIA –TRIESTE, with Palmanova-Udine and Portogruaro-Pordenone branches |
| Description | Extension of the A 28 motorway from Pordenone to Conegliano, Allotment No. 26. Crossing over the river Tagliamento at Latisana. |

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| Date | 1993 |
| Location | ITALY |
| Employer | AUTOSTRADA MESTRE-VITTORIO VENETO-PIAN DI VEDOIA: |
| Description | Allotment No. 8 – Viaduct at Ponte nelle Alpi. |

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| Date | 1996 |
| Location | THAILAND |
| Employer | STUDIO O. & P. - TREVISO: |
| Description | 1400 MW thermoelectric power plant at Bang Saphan. |

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| Date | 1996-1997 |
| Location | ITALY |
| Employer | CONSORZIO DI BONIFICA ADIGE BACCHIGLIONE |
| Description | Program for dealing with pollution of the Venetian Lagoon - basin recalibration and support measures. |

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| Date | 1996 |
| Location | ITALY |
| Employer | FERROCEMENTO S.P.A.- ROMA |
| Description | New bridge over the river Po, Venice branch between Cà Venier and Cà Tiepolo. |

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| Date | 1996 |
| Location | ITALY |
| Employer | SNAM S.P.A. |
| Description | Gas pipeline at Roverè della Luna, Bolzano |

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| Date | 1996 |
| Location | ITALY |
| Employer | AQUATER S.P.A. – SAN LORENZO IN CAMPO |
| Description | Rijeka project, LNG terminal at Monfalcone (GO). |

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| Date | 1997-2004 |
| Location | ITALY |
| Employer | AUTORITA' PORTUALE – VENEZIA |
| Description | Venice commercial port - Static tests and improvements to the Emilia quay on wharf B. Improvement and rehabilitation works to the Tagliamento Quay Construction Project of 350 m of quay along the banke side of the West industrial canal near Emilia quay in the Commercial Port of Venice , Marghera suburb New quay alongside the Sali canal |

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| Date | 1997 |
| Location | ITALY |
| Employer | GEMMO IMPIANTI S.P.A. – VERONA |
| Description | Messina - Palermo motorway - Project design of building K6 for housing plant |

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| Date | 1997 |
| Location | ITALY |

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| Employer | ASFALTI SINTEX S.P.A. – BOLOGNA |
| Description | ENAS – SS 347 Cibiana Venas di Cadore - New foundations for bridge over the river Boite |
| Date | 1997 |
| Location | ITALY |
| Employer | GEONOVA S.R.L. – TREVISO |
| Description | Project for final composition of landfill 2B in the Istrana district (TV) |
| Date | 1998 |
| Location | LIBIA |
| Employer | DEL FAVERO SRL - VICENZA |
| Description | Restoration Project of Wadi Qattarah Dams – Benghazi - LIBIA |
| Date | 1998 |
| Location | ITALY |
| Employer | MINISTERO PER I BENI CULTURALI E AMBIENTALI |
| Description | Preliminary Project for restoring “ex Ospedale degli Incurabili “ and adaptation to the new headquarters of Accademia di Belle Arti - Venice |
| Date | 1999 |
| Location | ITALY |
| Employer | SO.GE.A. SRL – PALERMO |
| Description | Plan for the soil defense and for hydrogeological re-arrangement of Valtellina and districts of Bergamo, Como, Brescia. Works of hydrogeological arrangement of Remulo torrent |
| Date | 1999 |
| Location | ITALY |
| Employer | GRASSETTO S.p.A. –TORTONA - ALESSANDRIA |
| Description | Municipality of Florence - Tollgate with interchange parking between the allotment “0” of the way Firenze – Pisa- Livorno and the inside bypass coming from Peretola |
| Date | 2000 |
| Location | ITALY |
| Employer | GRASSETTO S.p.A. – TORTONA - ALESSANDRIA |
| Description | SAVE ENGINEERING S.p.A. - Marco Polo Airport of Venice. Construction Project of 1 st allotment of new hangar. |
| Date | 2000-2004 |
| Location | ITALY |
| Employer | EDISON S.p.A. – MILAN |
| Description | RIMA of Marghera Levante - Venice. Foundation of new power plant at Torviscosa Foundation of new power plant at Simericrichi |
| Date | 2000 -2005 |
| Location | ITALY |
| Employer | IDROESSE INGEGNERIA SRL - PADUA |
| Description | New overpass Sarpi and junctions for connecting the roads - Padua. Vicenza southern by-pass BREBEMI New motorway between the city of MILAN and BRESCIA , preliminary and definitive geotechnical characterization. Construction Project of 3 rd allotment for the bypass motorway North Padua State road 47 new alignment in the municipality of Limena – Motorway BS-VR-VI-PD. Limena by-pass - Padova. |
| Date | 2005 |
| Location | ITALY |
| Employer | VENETO STRADE |
| Description | Geotechnical consultant during construction of a new 1.5 km tunnel at Listolade along S.S. |

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| | Agordina - Belluno |
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| Date | 2007 |
| Location | ITALY |
| Employer | Cimolai Costruzioni |
| Description | New motorway bridge on the Adige river, 580m. Specialist consultant on deep foundations. |
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| Date | 2005-to date | |
| Location | ITALY | ITALY |
| Employer | Passante di Mestre – Venice Link | |
| Description | New motorway link around the city of Mestre. Specialist consultant for the contractor for construction design and during works. | |
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| Date | 2002-2006 |
| Location | ITALY |
| Employer | Venice Municipality – Contractor Cignoni |
| Description | 4 th Bridge on the “Canal Grande” in Venice- Arch. Santiago Calatrava Foundations design for construction project. |
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