

## Profile

Chartered civil geotechnical engineer with 10 years experience in capital expenditure infrastructure design, management and delivery. With a strong international background, Roberto combines analysis skills, design experience and innate overall vision. He has project management experience in major infrastructure projects, design management and team coordination. He holds roles of responsibility in charities, which complete his skills set.

## Professional Experience

September 2013 – present

DESIGN MANAGER and PgMO at AUTOSTRADE PER L'ITALIA (Atlantia group – [www.atlantia.it](http://www.atlantia.it)), Rome, Milan and Genova (IT) Offices.

Programme management office (January 2014 – present): Responsible for programming the detail design (€19M) of the highway upgrade investments in portfolio (3<sup>rd</sup> and 4<sup>th</sup> lanes, for a total of €2.3 bn), priority analysis, manpower and resource allocation, make/buy strategy. Responsible for the design, development and implementation of a model for planning, scheduling and control of engineering design.

Responsible for proposing the organizational strategy for the Gronda di Genova project (€4.3 bn), investment delivery from engineering detail design, to procurement and construction.

“Variante di Valico” project (€3.82 bn): Responsible for planning and design of a master schedule for the work activities to completion, developing a new model from scratch.

Turnaround project: responsible for the design of an innovative digital archive.

Design management (January 2016 – present): Gronda di Genova project (€4.3 bn), responsible for design management of the detail design. Project charter. Project plan. Project execution plan. Make/buy strategy. Tender phase for design consultants: tender preparation, analysis of offers.

Design consultant coordination for bridges, tunnels, slurry pipeline, maritime works and procurement strategy for the Scheme design technical due diligence.

Project management (March 2015 – September 2016): Responsible for project management and technical management of the A10 - SS1 Aurelia interference with a new TBM excavated road tunnel underpassing two existing highway tunnels in operation along the A10 in Savona, northern Italy.

(May 2014 – May 2015): Design consultant coordination for the major “Variante di Valico” project in a lot completion work (€120M) design. Responsible for contract management of design consultants. Assistant to the PM for the dispute resolution process with the Contractor (total of €500M claims).

December 2008 – August 2013

PROJECT ENGINEER at ARUP ([www.arup.com](http://www.arup.com)), London, Bristol (UK), Perth (AUS), Milan and Rome (IT) Offices.

Design of geotechnical structures: Responsible for the geotechnical design of geotechnical structures for underground railway stations, tunnel, airport terminals, high rise buildings, multipurpose and industrial buildings, rail and highway infrastructure (bridges, cut and cover tunnels, embankments). Soil-structure interaction analyses. Excavation induced buildings damage assessment in dense urban environment (TBM, tunnels, deep excavations).

Geotechnical earthquake engineering design: Seismic design of geotechnical works: shallow foundations, deep foundations, deep excavations, embedded retaining wall, etc. Seismic vulnerability analysis of industrial buildings foundations and strengthening works design. Liquefaction assessment. Site response analysis. Post-earthquake reconnaissance and field missions. Post-earthquake building damage assessment.

Site supervision and geotechnical site investigation: Ground investigation scoping, planning, supervision and interpretation for in situ and laboratory tests, Pile load tests, ground anchor pull out tests, pumping tests.

Project and bid management: Project management on Risk assessment projects and on R&D Design and Technical Fund projects.

Technical advisory: Responsible for geotechnical aspects in technical due diligences, in tender at bid stage of infrastructure projects. Technical assistance on site to the site

supervisor (Direzione Lavori). Advisor to architects on geotechnical aspects in design competitions.

April 2008 – December 2008

RESEARCHER at UNIVERSITAT POLITECNICA DE CATALUNYA – C.I.M.N.E. ([www.cimne.com](http://www.cimne.com)), Barcelona (SPA).

Responsible for studying the soil-structure interaction and 9m dia TBM induced subsidence during the excavation works of the new 42km underground line in Barcelona (Linea 9).

January 2008 – March 2008

JUNIOR ENGINEER at OFINCAR GRANADA 21 S.L. ([www.tc6.es](http://www.tc6.es)), Granada (SPA).

Responsible for hydrogeological hazard assessment, river flow analysis, slope stability, retaining wall design.

## Academic background

October 2004 – December 2007

MASTER OF SCIENCE in **Civil Geotechnical Engineering**, at the Milan Technical University (Politecnico di Milano). Final Mark: 102/110.

September 2004 – September 2005

Universitat Politecnica de Valencia (Spain) - Socrates Erasmus Programme – Studentship.

September 2001 – October 2004

BACHELOR DEGREE in **Civil Geotechnical Engineering** at the Milan Technical University (Politecnico di Milano). Final mark 102/110.

September 1996 – July 2001

High school degree in Literature (Maturità Classica) at Liceo Ginnasio Statale “M. T. Varrone” di Rieti. Final mark: 84/100.

## Professional affiliations

Chartered engineer in Milan, Italy. Member of the Milan Institution of Engineers.

International Society of Soil Mechanics and Geotechnical Engineering, ISSMGE.

Italian Geotechnical Association, AGI.

International Tunnel Association – Italian society, SIG – Working Group 3: Contracts, member – Young Members: co-founder

MSc in Tunnel Engineering, Politecnico di Milano – Scientific committee member.

– Lecturer.

Earthquake Engineering Field Investigation Team, EEFIT, IStructE

## Languages

Italian . Mother tongue

English: Technical working knowledge. Fluent (level C2).

Spanish: Technical working knowledge. Fluent. (level C2)

*Certificates:* DELE (Diploma de Español para Lenguas Extranjeras), nivel SUPERIOR.

French: Intermediate (B1).

## Publications

Next Snia (2016): “*From the factory to the territory and its community: Roadmap for a sustainable urban and environmental regeneration of an abandoned industrial area in central Rieti*”, [www.nextrieti.it](http://www.nextrieti.it).

Minno M., Persio R., Petrella F. (2015) “*Finite element modeling of a piled raft for a tall building on cohesionless soil*”, Geotechnical Engineering for Infrastructure and Development. January 2015, 4019-4024, ICE, Ed. Thomas Telford, London.

Tradigo F., Pisanò F., Mussi A., Persio R., Di Prisco C. (2014): “*Finite element analysis of soil-structure interaction in disconnected piled raft foundations*”, 8<sup>th</sup> European Conference on Numerical Methods in Geotechnical Engineering, NUMGE2014, Delft, The Netherlands.

Rossetto T., D’Ayala D., Gori F., Persio R., Han J., Novelli V., Wilkinson S. M., Alexander D., Hill M., Stephens S., Kontoe S., Elia G., Verrucci E., Vicini A., Shelley W., Foulser-Piggott R. (2014): “*The value of multiple earthquake missions: the EEFIT L’Aquila Earthquake experience*”, Bulletin of Earthquake Engineering, Volume 12, Issue 1, pp 277-305, Springer, The Netherlands.

Petrella F., Persio R., Mussi A., Ferrero S., Allievi L. (2013): “*Structural and geotechnical design of a piled raft for a tall building founded on granular soil*”, XVIII ICSMGE, Paris.

Petrella F., Persio R., Mussi A. (2013): “*Behaviour of a large anchored basement wall in dense sands and gravels*”, 7<sup>th</sup> international conference on Case Histories in geotechnical engineering, Chicago.

Persio R., Petrella F. (2012): “*Seismic analysis and design of retaining walls*”, Seismic geo-guide, Arup.

DiMariano A., Persio R., Gens A., Castellanza R. and Arroyo M. (2009): “*Influence of some EPB operation parameters on ground movements*”. EUROTUN2009, Computational Methods in Tunnelling, 2009 Bochum, Germany.

Gens A., Persio R., Di Mariano A., Castellanza R. & Arroyo M. (2009): “*Relación entre los parámetros de una tuneladora EPB y los movimientos del terreno*”. Jornadas Hispano-Portuguesas de Geotecnia, Madrid, España.

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**Relevant CPD courses**

“IPMA project management”, Animp, Milano (May 2017).

“Public procurement”, Il Sole24ore business school, Rome (November 2014 – February 2015)

“Financing and Investing in Infrastructure”, S. Gatti, Bocconi University (June 2014 – July 2014).

“The design validation according to the Italian public procurement law (D. Lgs. 163/2006)”, the Institution of Engineers, Rome (March 2014).

“Corporate finance”, Institution of engineers, Rome (January – March 2012).

Arup Management System, short course for Internal Auditor on quality management system (ISO 9001, ISO14001) (April 2011).

“Soil dynamics and geotechnical earthquake engineering” doctoral school course at the Structural and Geotechnical department in the La Sapienza University in Rome (10-17 September 2007).

*Full list of courses, conferences and seminars available on request.*

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**Software and numerical tools**

Project management: MS Project 2010  
Engineering design: Oasys GEOTECHNICAL and GEOSEISMIC suite  
Geoslope® 2007  
Plaxis® 2011, Plaxis® V9 3D, Plaxis® V8 2D  
Paratie® Plus 2011, Paratie® 6.2  
MIDAS GTS 3D  
EERA, Syren (Site Response Analysis)  
HEC-RAS  
Presto  
AutoCad®, Photoshop®, MDTv4

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**Other relevant experience**

AILAR, an Italian Charity active in the field of oncology. National Board member, Regional delegate for Lazio. Responsible for advocacy, fundraising, project proposal ([www.ailar.it](http://www.ailar.it))

FAVO, Federation of Patient Associations, active in the field of advocacy in oncology, Regional board co-founder and member ([www.favo.it](http://www.favo.it)).

NEXT RIETI, local association for active citizenship and sustainable development, Co-founder and board member ([www.nextrieti.it](http://www.nextrieti.it)).

Skier, alpinist and mountaineer.

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I hereby authorize the use and process of personal data in compliance with the Italian legislative Decree no. 196/03.

ROBERTO PERSIO