

Pietro Zanetti

Chartered Civil geotechnical engineer with technical experience on soil-structure interaction, bored & mined tunnelling, metro & railway stations, shafts, buildings design for D&B contracts. Recently acting as principal geotechnical designer of railway stations and cut & cover tunnel projects on behalf of public clients.

Professional Record



(F&M Ingegneria SpA)

10/2023 - Present
Venice, IT

Senior Geotechnical Engineer, Catania Metro (Ferrovie Regionali Siciliane), FCE (client)

- Geotechnical design of 2 no. underground stations (84m x 32m, 21m deep). Ongoing site support
- Plaxis Analysis of anchored micropiles on lava basalt. Optimized Jet grouting scheme value engineering

02/2023 - Present
Venice, IT

Senior Geotechnical Engineer, Venice Airport Railway Link, Rete Ferroviaria Italiana RFI (client)

- 300m x 60m cut-and-cover station tunnel Top-down method supported by 36m long diaphragm walls
- jet grouting for uplift, hydraulic heave and groundwater control
- Ongoing site support to contractor (Rizzani de Eccher)

08/2024 - Present
Venice, IT

Senior Geotechnical Engineer, various projects

- RFI – Augusta Bypass (2025). Station design and bridge ramps; stone columns for soil improvement
- SACBO - P4 Parking BGY Airport (2024). Scoping of GIs and geotech design of 5 storey building

ARUP (Arup)

05/2020 - 11/2022
London, UK

Tunnel Designer, HS2 (UK's largest transport project) S2 Old Oak Common

- 5km Sprayed Concrete Lining twin tunnel design interfacing crossover box, metro station, shaft
- PLAXIS 2D & 3D London Clay consolidation analyses and primary lining design

03/2021 – 11/2022
Copenhagen, DK

Geotechnical Engineer, Large-scale Data center, Confidential Hi-tech Client

- Scoping of GIs, lab testing, soil characterization.
- 900+ shallow pad foundations design. Hardening Soil constitutive model validation Plaxis 2D

05/2018 - Present
Milan, IT
Copenhagen, DK

Geotechnical Engineer, various projects

- Femern A/S - Pilen (2022). Pile design for Observation tower over Fehmarn (DK-DE immersed tunnel)
- Coima S.r.l. - Gioia 20, Milan, Italy (2019). 110m high-rise building monitoring specs

05/2018 - 05/2020
Copenhagen, DK

Geotechnical Engineer, Cityringen M4 Metro branch-off-to-Sydhavn, Metroselskabet

- Geotechnical Interpretative Report. Subgrade reaction moduli calibration
- secant bored piles wall design. Base slab design with tension piles for uplift

Academic Record

09/2024 - Ongoing



E-MBA (Executive Master of Business Administration); University of Udine

08/2016 - 07/2018
Copenhagen, DK



MSc Civil Engineering - Building Structures; Technical University of Denmark

Thesis project: Soil-structure interaction for wind turbines subjected to earthquake excitations

09/2012 - 12/2015
Trento, IT; Madrid, ES

BSc Civil Engineering; University of Trento

Erasmus Programme; Polytechnic of Madrid (UPM)

08/2022 - Present
04/2023 - Present

Ordine degli Ingegneri della Città Metr. di Venezia - Chartered Civil Engineer, Sez. A, N. 5101

SIG (Società Italiana Gallerie) - Young Member and part of Working Group 2

Publications

2025 (WTC25)

Damiani et al. 'Complex groundwater control in conventional tunnels with Top-Down method for Venice Tunnel (Venice Airport Railway Link)'

2022 (WTC22)

Petrella, Martini and Zanetti, 'Settlement prediction and observed behaviour of a railway embankment induced by tunnelling in mixed faced conditions in Copenhagen'

2021 (EUROCK 2021)

Jackson, Olbakk, Petrella, Wudzka and Zanetti, 'A case study on the design, numerical modelling and preliminary testing of tension piles in weak rock'

2017 (Elsevier)

Broseghini, Zanetti, Jefferson and Gei, 'Progressive instability in circular masonry columns'

Skills

Languages

Italian *native*
English *fluent*

Spanish *fluent*
Danish *fluent*

Digital

FE Plaxis 2D & 3D; Midas; Leapfrog
Paratie Plus, Slide2, Aztec, Lpile, Settle3, RSWall