

Federico Maltese

Date of Birth: 10/06/1988

Nationality: Italian

Home Address: Via Cesana 25, 10139, Torino, Italy.

Telephone: +39 3291367381

Email: maltese.federico@gmail.com



Professional Experience

– Geodata Engineering Spa, Turin – May 2014 / Present

I am geotechnical and structural designer, specialized in FEM geotechnical and structural analysis of underground constructions (tunnels, shafts and stations).

Principal projects:

- Dudullu-Bostanci Line: This line, on the Istanbul Anatolian side, is a completely automatic system with 14.2 km length and 13 underground stations. I developed the complete design of cavern stations, and of two cut-and-cover stations. Now I'm currently involved in the project completion of two more lines whose construction tender is expected for 2016.
- Thomson-East Cost Line (Singapore): It's a joint line between the Thomson Line and the Eastern Region Line. The project includes two stations, the 4in1 depot and the tunnels in-between them. This new metropolitan line will be active from 2019. I developed geotechnical analysis of some cut-and-cover sections excavated in fine-grained soil in undrained-condition.
- Linha 5 – Lilás da Companhia do Metropolitano de São Paulo: This one is an extension of 11.5 km of the existing line 5. The new project involves the construction of 10 new station, 13 vertical shaft for ventilation and one parking area. For this project I developed the structural analysis and verification of the Otonis Sud access of the Hospital São Paulo station. This one has been completely developed in Revit and exported in Robot Structural Analysis.

– Techproject Srl, Rome - April 2014 / May 2014

I developed the geotechnical design of the new high-speed train line Milano - Genova (embankment and culvert, pier standing, abutment).

– SETIN Srl, Rome - June 2013 / April 2014

Experience of structural, geotechnical and BIM design management and execution (metropolitan station, pier standing and abutment).

Principal projects:

- Copenhagen Cityringen Metro: I developed the geotechnical analysis and BIM model of two deep metro stations Gammel Strand and Oster Sogade.

– am+studio Srl, Rome – January 2012 / June 2012

Experience in integrated design; structural, architectural and plant design. I developed, managed and inspected a part of the Copenhagen metropolitan station project, “Nuuks Plads”.

- **Descor Srl**, Rome – September 2011 / January 2012
Teacher and technician assistant to structural design in Revit Structure.

Education and Training

- **Master of Science degree in Civil Engineering: Geotechnical Engineering**, Sapienza University of Rome - January 2014.
Final Grades: 110/110 (magna cum laude).
Thesis : “Design of deep excavations in fine-grained soils”
Summary: I illustrated the results of a parametric study, in which finite-element analysis, based on effective stresses, were carried out to evaluate how the internal forces and the displacements of the retaining structures are influenced by various quantities.
- **Bachelor of Science degree in Civil Engineering**.
Sapienza University of Rome - March 2011.
Final Grades: 97/110.
- **Scientific High School Degree**.
“Augusto Righi”, Rome, September 2007.

Lectures¹

- **Course BIM – Learning**, INARCH, Rome – 14th February 2014
“Building Information Modeling (BIM) and Engineering”
- **Autodesk & Descor**, Rome – 30th October 2013.
“BIM to become competitive and to win new commissions in Italy and abroad”
Practical case of BIM application (Ostergade Metropolitan Station – Setin Srl).
- **EMIC Executive Master in Management of Construction Company**, LUISS, Rome – 14th September 2013.
“Building Information Modeling, BIM, Construction Industry”
Practical case of BIM application (Gammel Strand Metropolitan Station – Setin Srl).
- **Expo Edilizia**, Rome, 5^o Construction and Architecture– 24th March 2012.
“CAD to BIM – New frontier to computerized design with Autodesk Revit.”
- **Sapienza University of Rome**, College of Architecture, Lecture Hall – 25th May 2011.
“Autodesk Revit – Computerized design course - 2010-2011”.

Article

- **“Design of deep excavations in fine-grained soils accounting for changes in pore water pressure”**, *Eighth International Symposium on Geotechnical Aspects of Underground Construction in Soft Ground*, Seoul – 25th August 2014.

¹ I'm the speaker.

Abstract: The paper illustrates the results of a parametric study, in which finite-element analyses were carried out to evaluate the excess pore water pressures induced by excavations, in low permeability soils, and to assess the effects of their variation with time. Mechanical behavior of the clayey soils was described using a constitutive model based on hardening plasticity (Hardening Soil). The results are used to provide practical indications about the values of excess pore water pressures to be considered for design.

Language skills

- **Italian:** Mother Tongue.
- **English:** Good in speaking and writing.

Computer skills

- **Excellent knowledge of the following software:**
Plaxis 2D, Paratie Plus, Phase2, SAP2000, Staus7, Robot Structural Analysis, Revit, Autocad and Autocad Structural Detailing for concrete, Excel, Word, Grapher, Surfer, .
- **Good knowledge of the following software:**
Flac3D, Dynamo for Revit, Matlab, Rhinoceros, Mathematica, GeoStudio, Midas Gen, Hec-Ras.

Certificate

- **Excellent Graduate**, “La Sapienza”, University of Rome – 8th May 2014
- **Certificate of participation**, ITACET, Turin, - 15/16th January 2015
“Conventional Tunneling and ground reinforcing techniques”
- **Certificate of participation**, HARPACEAS, Turin, - 30th June 2015
“FLAC 3D”

Personal skills

I have excellent ability to work in team, communicate with others and organize individual as well as team projects. I am responsible, ambitious and careful in timing and deadlines. I am studious and keen on new technology above everything else learn quickly. I am open to travel and temporary relocation if necessary.

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