

# Short Curriculum vitae of Pierpaolo Oreste

## Education and training

- Attainment, cum laude, of a degree in Mining Engineering at the Politecnico di Torino with a thesis entitled : “Studio di applicabilità di un nuovo metodo di coltivazione in un miniera di talco in sotterraneo” (Study of the applicability of a new mining method in an underground talk mine) (July 1991);
- Attainment, cum laude, of a degree in Environmental Engineering with specialization in Geotechnology at the Politecnico di Torino with a thesis entitled: “Analisi delle Condizioni di Stabilità di una Caverna Mineraria di Grandi Dimensioni” (Analysis of the Stability Conditions of a Large Sized Mining Cavern) (October 1996);
- Attended specialisation course in Mechanised Tunnelling (duration: 300 hours) organised by the Politecnico di Torino and attainment of the relative final diploma (April-June 1994);
- Attainment of a Ph.D. in Underground Resource Engineering with a thesis entitled: New Calculation Models of Reinforced and Precontainment Structures in Tunnels (October 1995);

## Work experience

- Post-doctoral Fellow (1996-1998) at the Department of Georesources and Land at the Politecnico di Torino on the following topic: Analysis of improvement techniques of the static function of tunnel faces.
- Employed as University Researcher at the Department of Environmental, Land and Infrastructure Engineering at the Politecnico di Torino (1999-2006) in the ex I 16 A scientific sector (Excavation and Mining Engineering), at present ING-IND/28 (Excavation Safety and Engineering).
- Employed as Associated Professor at the Department of Environmental, Land and Infrastructure Engineering at the Politecnico di Torino (in 2006) in the ING-IND/28 scientific sector (Excavation Safety and Engineering).
- Employed as Full Professor at the Department of Environmental, Land and Infrastructure Engineering at the Politecnico di Torino (in 2016) in the ING-IND/28 scientific sector (Excavation Safety and Engineering).

## **Scientific activity**

- Author of more than 200 scientific publications in national and international journals as well as conference proceedings, mainly in the field of geomechanics and underground structures.
- Pierpaolo Oreste's scientific activity has been developed through theoretical and applied research, mainly in the field of geomechanics and underground structures, and is documented by the publications that are listed in the annex enclosed with the curriculum. The research has in part been developed as part of research projects of the Politecnico di Torino, of the National Research Council (CNR) and of the Ministry of Scientific Research and the University of the Italian Republic (PRIN). The theoretical research has mainly been developed as part of public research projects or of projects supported by public funds. The applied research has mainly been related to research contracts between the Politecnico di Torino and external companies.

## **Coordinator of research groups and projects**

- President of the Educational Area of Environmental and Land Engineering (2007-2012). This area supervised 4 different Engineering Degree Courses which were attended by more than 700 students: Bachelor in Environmental and Land Engineering, Master of Science in Environmental and Land Engineering, Master of Science in Land Protection Engineering, Master of Science in Petroleum Engineering. Sixty professors, in charge of the various degree courses, belonged to this organisation.
- Coordinator of the Degree Courses School in Environmental and Land Engineering (since 2012). This School plays the same role as the previous Educational Area school, with the addition of some assignments of the former Faculties. The Bachelor in Environmental and Land Engineering, the Master of Science in Environment and Land Engineering and the Master of Science in Petroleum Engineering, attended by a total of about 900 students, are all part of this School. About 65 professors, holders of the teaching courses, are members of this School.
- Vice-Director of the Department of Land, Environment and Geotechnology Engineering (DITAG) at the Politecnico di Torino (2007-2011). This Department was composed of 50 professors and researchers, more than 15 technicians and administrative staff and another 40 collaborators, including scholarship holders and research grant holders. The Department budget, in the 2007-2011 period, amounted to about 3 million Euros per year. The Department was engaged in relevant applied research projects at a national and international level in the field of

environment and land, with close connection to the socio-economic context of Turin and Italy with many important contacts and international partnerships.

- Coordinator of the Politecnico di Torino project entitled "Innovative methods for the eco-compatible and sustainable recycling of excavation, considering the potential content of noxious minerals" co-funded by the Piedmont Region at the end of a selection procedure of the received proposals. This research project (total amount 1.8 million Euros) was active in the 2007-2011 period and lasted 42 months; it involved 25 professors and researchers from the Politecnico di Torino from three different departments and five external companies.
- Coordinator of contracts between the Politecnico di Torino and public and private companies.
- International co-tutoring of three Ph.D. students at the Instituto Superior Tecnico, Universidade Tecnica de Lisboa, 2010; INSA de Lyon, 2014; Amirkabir University of Technology, Tehran Polytechnic, 2014.
- Member of the Board of Directors of the Politecnico di Torino (2003-2006 and 2007-2013). The Board of Directors is the supreme Body that manages and organizes the University activities, with around eight hundred teachers and as many technicians and administrative employees and where about 30,000 students study. The total budget that the Board of Directors administered in the 2003-2013 period was about 300 million Euros per year. The Council was made up of 12 elected members and by the Rector, Vice Rector and Director of Administration.

## **Main Teaching activity**

- Held the course on "Mining" (1999-2000), the course on "Underground Constructions" (from 2002-2003 until now), the course on "Tunnelling" (2004-2005) and the course on "Quarries and environmental rehabilitation" (2003-2004) at the Faculty of Engineering at the Politecnico di Torino. Holder of the course "Underground Constructions" (80 hours) in the second year of the Master of Science in Environmental and Land Engineering since the 2011-2012 academic year, of the course "Evaluation and Managing of Risks" (120 hours) since 2018-2019 academic year and of the course "Occupational Safety Engineering" (60 hours) in the second year of the Master of Science in Petroleum and Mining Engineering since 2019-2020 academic year.
- Teacher of the "Theory and applications of back-analysis in excavation engineering" course (15 hours) (2002) and of the "Calculation methods in geoengineering" course (20 hours) at the Ph.D. School (Doctorate in Civil and environmental engineering) at the Politecnico di Torino (2015).

## **Services and institutional roles in Italian and foreign universities and/or public and private institutions with scientific and/or technological transfer**

- Member of the Society of Mining Professors (SOMP), based in Delft (The Netherlands) (since 2013).
- Member of the Institute of Environmental Geology and Geoengineering, Turin branch, of the National Research Council (since 2002).
- Lecturer in Applied Geology, Module II, at the University of Siena (1996-1997).
- Member of the Regional Committee for Public Works of the Piedmont Region (1995-2000). The Regional Committee for Public Works was the supreme controlling body of the Piedmont Region of public work projects of regional and national importance.
- Consultant of the Administrative Judiciary Board (Piedmont Regional Administrative Court) for a Technical Verification related to the awarding of a construction contract for a total amount of 10.3 million Euros (2014).
- Member of the Board of the Ph.D. School in Environmental Engineering at the Politecnico di Torino (from 2012 to 2015) and of the Board of the Ph.D. School in Civil and Environmental Engineering (since 2015).
- Member of the Committee for the reorganisation of the structures of the Politecnico di Torino, as representative of the Board of Directors (2010-2011).