

PERSONAL INFORMATION

Francesco Lo Monte



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PROFESSIONAL EXPERIENCE

Since January, 2011

PhD Student, Post-doctoral Researcher and Structural Engineering Consultant

Politecnico di Milano, piazza Leonardo da Vinci, 32, 20133 Milan (Italy)

- Engineering consultancy in collaboration with the Department of Civil and Environmental Engineering (DICA) and with the Laboratory of Material and Structural Testing (Laboratorio Prove Materiali e Strutture – LPM) at Politecnico di Milano:
 1. Structural diagnosis on existing structures and infrastructures (industrial plants, tunnels and historical buildings) via destructive and non-destructive techniques
 2. Structural assessment
 3. Structural and material characterization via laboratory testing in ordinary or extreme conditions
- Fire Engineering (linear and non-linear Finite Element analyses on structures)
- Researcher in the Financed Projects:
 1. “Continuous Deformation Monitoring under Coring for Stress State Identification in Tunnels”, financed by Fondazione Lombardi Ingegneria (Switzerland)
 2. “High-Performance Concrete in Tunnels: the spalling sensitivity in case of fire”, financed by Fondazione Lombardi Ingegneria (Switzerland)
 3. “Test Monitoring of Concrete Elements Exposed to Fire”, partly financed by CSTB (France)
 4. “Concrete Behaviour in Fire: Interaction between Explosive Spalling and Stress, and Evaluation of Permeability at High Temperature”, financed by CTG-Italcementi Group (Italy)
- Professor assistant in the courses of Structural Design (Civil Engineering and Architecture)

May 2010-April 2011

Finite Element Modelling, Structural Analyses and Design

Design Office ECSD S.r.l., Via Carlo Goldoni, 22, 20129 Milan (Italy)

Main projects:

- Static study of the steel facade of a tall building
- Static study and optimization of the steel structure for big solar trackers
- Design of structural retrofitting of R/C buildings
- Design of structural and seismic retrofitting of a multi-span R/C and P/C viaduct

March-May 2010

Facility Management and Safety

R. Bosch Italia, via Marco Antonio Colonna, 35, 20149 Milan (Italy)

EDUCATION

January, 2011-December, 2013

PhD in Structural, Seismic and Geotechnical Engineering

cum Laude

Thesis: “Reinforced Concrete in Fire: from Materials Behaviour to Spalling Sensitivity and Structural Modelling”, Supervisors: P. G. Gambarova and R. Felicetti.

Politecnico di Milano, piazza Leonardo da Vinci, 32, 20133 Milan (Italy)

October, 2007 – December, 2009

Master Degree in Civil Engineering (Structures)

110L/110

Politecnico di Milano, piazza Leonardo da Vinci, 32, 20133 Milan (Italy)

September, 2004 – July, 2007

Bachelor Degree in Civil Engineering

110L/110

Politecnico di Milano, piazza Leonardo da Vinci, 32, 20133 Milan (Italy)

September, 1999 – July, 2004

High School Diploma*Liceo Scientifico G.B. Vico, via Leonardo da Vinci, 1, 20093 Cologno Monzese, Milan (Italy)***AWARDS**Calls for Financial Support by
Fondazione Lombardi Ingegneria
in 2013 and 2016

Two projects chosen:

“Continuous Deformation Monitoring under Coring for Stress State Identification in Tunnels ” (2016)

“High-Performance Concrete in Tunnels: the spalling sensitivity in case of fire” (2013)

PhD Thesis

Best three PhD thesis in the competition “Innovation in Concrete Structures and Cementitious Materials” organized by ACI-Italy Chapter and Federbeton ACI in 2014

Bachelor's Degree

Best graduate in Civil Engineering at Politecnico di Milano in 2009

LANGUAGENative Language
Foreign Language

Italian

English (Toefl iBT, 88/120)

FURTHER INFORMATION

Software

Programming Software: Matlab, Fortran

Finite Element Analysis: ABAQUS, Sap 2000, PRO_Sap

Others: Microsoft Office, Autodesk

Professional Board

Registered in the Official Civil Engineering Board of Milan since 2010 (matriculation number 28450)

International cooperations

- Since October 2015: participation to the RILEM Technical Committee 256-SPF: "Spalling of concrete due to fire: testing and modelling", aimed at establishing recommendations on experimental methods for characterizing spalling sensitivity of concrete in fire.
- October 2013: Experimental investigation on pore pressure in concrete during heating, via neutron radiography at Paul Scherrer Institute (PSI, Villigen, Switzerland), in cooperation with EMPA (Dübendorf, Switzerland)

Main publications on
International Journals or on
Proceedings of International
Conferences

- P. Bamonte and F. Lo Monte, “Reinforced Concrete Columns Exposed to Standard Fire: Comparison among Different Constitutive Models for Concrete at High Temperature”, *Fire Safety Journal* 71 (2015), pp.310-323, DOI: <http://dx.doi.org/10.1016/j.firesaf.2014.11.014>.
- F. Lo Monte, C. Rossino and R. Felicetti, “Spalling Test on Concrete Slabs Under Biaxial Membrane Loading”, *Proceedings of the 4th International Workshop on “Concrete Spalling due to Fire Exposure”*, Leipzig (Germany), October 8-9, 2015
- Lo Monte, R. Felicetti, M. Lualdi and F. Lombardi, “Concrete Damage and Spalling Monitoring in Fire Tests via Ultrasonic Pulse-Echo and Ground-Penetrating Radar”, *Proceedings of the International Symposium Non-Destructive Testing in Civil Engineering – NDT-CE*, Berlin (Germany), September 15-17, 2015
- N. Toropovs, F. Lo Monte, M. Wyrzykowski, B. Weber, G. Sahmenko, P. Vontobel, R. Felicetti and P. Lura, “Real-time measurements of temperature, pressure and moisture profiles in High-Performance Concrete exposed to high temperatures during neutron radiography imaging”, *Cement and Concrete Research* 68 (2015), pp. 166-173.
- C. Pozzuoli, F. Lo Monte, F. Mola, E. Mola, G. Pasqualato and V. Re, “ Seismic Analysis and Retrofitting of the Highway Bridge over the Rivers Tanaro and Bormida”, *Proceedings of the Second European Conference on Earthquake Engineering and Seismology*, Istanbul (Turkey), August 25-29, 2014.

‘autorizzo al trattamento dei dati personali, ai sensi dell’art. 13 del D. Lgs. 196/2003