

PERSONAL INFORMATION



Sebastiano Marasco

📍 Via Speranza B 99, 88049 Soveria Mannelli (Italy)

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Sex Male | Date of birth 05/07/1988 | Nationality Italian

STUDIES APPLIED FOR

Civil/Structural Engineer

WORK EXPERIENCE

Mar 2014–Apr 2014

Software developer

Giuseppe Manzone Engineering Studio
Via Carlo Alberto 31, Torino (Italy)

Collection of data necessary to develop software for seismic signal processing and earthquake selection.

Business or sector Construction

EDUCATION AND TRAINING

1 Dec 2014–Present

Ph.D. in Structural Engineering

Politecnico di Torino, Torino (Italy)

Scientific activities:

- Analyses of ground motion selection methods for input seismic definition to be used in structural and geotechnical fields.
- Development of a new ground motion selection and modification procedure based on the energetic content of records.
- Improvement of GPU parallel computing concepts in MATLAB.
- Updating and performance improvement of OPENSIGNAL software
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- Analyses of basic concepts of critical infrastructural networks resilience in order to identify the main interdependencies.
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- Development of a new code for evaluating the critical infrastructural performances during emergency cases, correctly considering the seismic input.

Oct 2011–Jul 2014

Master of Science in Civil/Structural Engineering - LM23

Politecnico di Torino, Corso Duca degli Abruzzi 24, 10129, Torino (Italy)

Final score: 110/110

Main skills and study areas:

- Structural design and verification of reinforced concrete structures;
- Seismic analysis of buildings according to NTC08, EC8 and FEMA;
- Seismic signal analysis;
- Structural calculation of elements and application of numerical methods (F.E.M.);

- Nonlinear analysis of structures (plastic analysis and fracture mechanics)
- Analysis and design of geotechnical constructions (shallow and deep foundations, retaining walls);
- Fundamentals of transportation infrastructural constructions;
- Fundamentals of hydrology.

- Final thesis: "OPENSIGNAL: a complete software framework for earthquake processing and selection", supervisor: Prof. G. P. Cimellaro.
- Development of MATLAB software for seismic records processing and ground motion selection. The main goal of software is to define a consistent seismic input to be used in the seismic design.

Oct 2007–Sep 2011

Bachelor of Science in Civil Engineering

Università degli studi della Calabria, Via Pietro Bucci, 87036 Arcavacada di Rende, Cosenza (Italy)

Final score: 102/110

Main skills and study areas:

- Basic subjects (mathematical analysis, physics, chemistry, programming languages);
- Fundamentals of design and verification of reinforced concrete and steel structures;
- Fundamentals of hydraulic constructions design (aqueducts, drainage, and shallow water management);
- Fundamentals of geotechnical design;
- Fundamentals of materials technology;
- Fundamentals of transportation planning and management;
- Fundamentals of survey planning.

Final thesis: "Ultimate Limit State of stability of reinforced concrete elements", supervisor: Prof. Luciano Ombres.

- Analysis of different mathematical and physical models in order to consider the second order effects on reinforced concrete elements.
- Ultimate Limit State description according to NTC08 and EC2.

Sep 2002–Jul 2007

Secondary School Leaving Qualification

Istituto Tecnico Statale per Geometri, Via S. Miceli, 88046, Lamezia Terme (Italy)

Final score: 90/100

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	C1
IELTS Certificate Overall results: 5.5-B2 (2014, March) PET Certificate Overall results: 70-B1 (2011, July)					

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
 Common European Framework of Reference for Languages

Communication skills

Excellent adaptability in multicultural environments, high propensity to group work and good social capabilities.

- Cultural activities carried out during "Soveria più" summer festival (2011-2013).

Organisational / managerial skills

Excellent capability to work either alone or in team respecting provided deadlines and focusing on the targets.

Experience obtained during the following activities:

- University team-work (projects, reports and thesis)
- Organization of summer cultural event "Vinellando" for three consecutive years and assembly filmography and fotography editor.

Job-related skills

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Independent user	Proficient user	Independent user	Proficient user

Digital competences - Self-assessment grid

- Excellent knowledge of Microsoft Office™ (Word, Excel, Powerpoint);
- Excellent knowledge of text and image management (Sigmaplot, Mathtype, Ednote);
- Good knowledge of Autocad;
- Good knowledge of structural calculation software (SAP2000, Lusas, SDC);
- Good knowledge of Diadim software of geo&soft international;
- Advanced knowledge of MATLAB;
- Basic knowledge of Java;
- Good knowledge of html and php;

More: Development of MATLAB software (OPENSIGNAL) for seismic signal processing and ground motion selection.

Other skills

- Good capability at manufacturing activities.
- Excellent capability to adapt in different environments.

Driving licence

B

ADDITIONAL INFORMATION

Conferences

Cimellaro, G. P., and Marasco, S. (2014). "Opensignal: a software framework for earthquake record processing and selection." Second European Conference on Earthquake Engineering and Seismology (2ECEES), Istanbul, August 24-29, 2014.

Conferences

Cimellaro, G. P., and Marasco, S. (2014). "A new earthquake record processing and selection software: OPENSIGNAL." XI Congreso Chileno de Sismología e Ingeniería Sísmica, Hotel Intercontinental Santiago, Santiago de Chile - March 18-20, 2015.

Publications

Cimellaro G and Marasco S (2015).A COMPUTER-BASED ENVIRONMENT FOR PROCESSING AND SELECTION OF SEISMIC GROUND MOTION RECORDS: OPENSIGNAL.*Front. Built Environ.* 1:17.doi: 10.3389/fbuil.2015.00017

Publications Gian Paolo Cimellaro & Sebastiano Marasco. *Fundamentals of Dynamic of Structures and Earthquake Engineering*. universitas-studiorum.it

Projects Spencer Quiel, Sebastiano Marasco, Takayuki Yokoyama, Kevin Mueller, Shalva Marjanishvili, Gian Paolo Cimellaro. *Special Issue: Recent Advances in Assessment and Mitigation of Multiple Hazards for Structures and Infrastructures*.

Honours and awards Research fellowship for scientific activity in "Development of a software framework for earthquake record processing and selection for real and synthetic ground motion records", n. 00628/2015/V.5.2. April 04, 2015.