

INFORMAZIONI PERSONALI

Raffaella Cefalo



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Sex Female | Date of birth 24/07/1963 | Nationality Italian

ACTUAL POSITION

Professor of Topography and Cartography, Department of Engineering and Architecture, University of Trieste, Italy  
 GeoSNav Laboratory Director, University of Trieste, Italy

PROFESSIONAL EXPERIENCE

Since November 2002

**Professor of Topography and Cartography,**  
**GeoSNav Laboratory Director**  
**Department of Engineering and Architecture, University of Trieste, Italy**

University of Trieste, Piazzale Europa 1, 34127 TRIESTE, ITALY <http://geosnav.dia.units.it/>

▪ **Titular of the following Courses:**

- "Topography and Cartography", Bachelor Degree in Civil and Environmental Engineering, University of Trieste, Italy;
- "3D Advanced surveying techniques and GIS for civil and environmental monitoring", Master Degree in Civil Engineering and Informatics Engineering, University of Trieste, Italy.

**R&D activities:**

- GNSS (Global Navigation Satellite System) techniques and applications to civil and environmental monitoring (bridges, chimneys, landslides, glaciers, real time environmental pollution monitoring) and to aerial, maritime and terrestrial navigation;
- 3D topographic and GNSS advanced techniques applied to civil and environmental engineering, geophysics, architecture, archaeology, cultural heritage; 3D modelling;
- Laser scanner, photogrammetry, GIS and Web GIS applications to civil and environmental engineering, architecture, archaeology and cultural heritage;
- MMS (Mobile Mapping System) surveys for Road Cadaster updating and GNSS devices real-time and post-processing performance analysis;
- Applications of EGNOS (European Geostationary Navigation Overlay System) technology to dynamic positioning; experimental tests and analysis of ESA SISNeT (Signal in Space through InterNet) technology;
- Hardware/software innovative developments for real time terrestrial navigation;
- "Innovative GNSS/INS techniques applications to cable car plants monitoring for passengers safety analysis", in cooperation with Domenico Di Santolo non-destructive tests Laboratory, DIA
- research funded by University of Trieste in the framework of FRA 2013-2015;

Participation to an International Research Group in the framework of MONITOR Project, funded by GJU (Galileo Joint Undertaking), European Commission, FP6.

Erasmus coordinator. Department of Engineering and Architecture ERASMUS coordinator till 2017. Vice Coordinator of the PhD in Geomatics and GIS, University of Trieste, till 2008, than member of the Board of Civil and Environmental Engineering, University of Trieste.

Coordinator of the module of Planning and Environmental monitoring, second level Master in Characterization and sustainable territorial use, University of Trieste, 2008-2011.

Coordinator of a Consortium of 10 partners for a Project Proposal preparation in the framework of Environmental Call, FP7, total budget: 3.2 M€.

GSA (European GNSS Agency) External Expert and Technical Reviewer, European Commission since 2010.

from December 1994 to  
November 2002

Activity or sector Higher Education

**Researcher of Topography and Cartography, Department of Civil Engineering,  
University of Trieste, Italy**

University of Trieste, Piazzale Europa 1, 34127 TRIESTE, ITALY [www.units.it](http://www.units.it)

**Principal R&D activities and responsibilities:**

Didactic activities in the framework of the Course of Topography, University of Trieste and Cartography and Geographic Information Systems, University of Trieste, Italy.

Cooperation with Geophysics Section, Department of Earth Sciences at University of Milan, Italy for researches applied to alpine and Antarctic glaciers monitoring by using geodetic/geophysics integrated techniques (GNSS/geo-radar).

Participation to Dome Concordia Italy-French Antarctic Project, funded by PNRA (National Project for Researches in Antarctica), ENEA, with the responsibility of GPS data processing and 3D modelling. Organization and participation to surveying campaigns for landslide monitoring in the framework of cooperation with Civil Protection, Friuli Venezia Giulia Region.

University of Trieste,  
Piazzale Europa 1, 34127 Trieste, Italy.

**HIGHER  
EDUCATION**

From January 1993 to  
January 1996

**PhD**

PhD in Geodetic and Topographic Sciences.

Dissertation Title: "GPS kinematic techniques and applications to Engineering and Geophysics", containing experimental researches presented to DomeC (Antarctica) Steering Committee.

Cooperation with European Research Groups for kinematic GNSS (Global Navigation Satellite Systems) applications to terrestrial navigation and Geophysics.

From 1984 to 1991

Polytechnic of Milan  
Piazza Leonardo da Vinci 32, 20133 Milan, Italy.

**Degree in Civil Engineering**

5 years programme Degree in Civil Engineering with full marks.  
University of Trieste, Piazzale Europa 1, 34127 Trieste, Italy.

**PERSONNEL  
COMPETENCES**

Mother tongue(s)

Italian

Other language(s)  
SELF-ASSESSMENT  
EUROPEAN LEVEL (\*)

English

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C2	C1	C1	C2
Advanced User				

Levels: A1/A2: basic user - B1/B2: intermediate user - C1/C2: advanced user

(\*) Common European Framework of Reference (CEF) level

Social skills and competences

- Attitude for Teamwork and International Cooperation.
- International relations.
- Ability to share and disseminate scientific and technical experiences.
- Very good communication and didactic skills, public speaking ability, ability to think critically and solve problems.

Organisational skills and

Research Project management.

**competences**

Coordination of national and international Research Groups.  
 Organization of national and International Seminars, Courses and Workshops. Dissemination.  
 Participation to International Teaching Staff Mobility Programmes in the framework of ERASMUS Programme.  
 Students' R&D activities coordination for Degree and PhD Thesis.  
 Attitude for Teamwork and International Cooperation.  
 National and international Projects management.  
 Coordination of international Research Groups.  
 Higher Education – Organization and teaching in international Seminars/Courses/Workshops.  
 Dissemination in the framework of International Projects.  
 Management of International Exchange Programmes (Erasmus and extra-Erasmus).  
 Management of experimental research activities for PhD and Degree Thesis/Dissertations.  
 Local organizer of a Summer School with Texas A&M University, College Station, Texas, since 2015.

**Professional competencies**

- Very good competence in national and international surveying campaigns organization and management.
- High expertise in experimental activities planning, managing and data processing, analysis and reporting.
- Participation to National and International Projects. Organization of experimental activities and surveying campaigns. Data processing. Instruments testing.

**Computer skills and competences**

SELF-ASSESSMENT				
Information processing	Communication	Contents creation	Safety	Problems solving
ADVANCED USER	ADVANCED USER	ADVANCED USER	ADVANCED USER	ADVANCED USER

Levels: BASIC USER – INTERMEDIATE USER - ADVANCED USER  
[Competenze digitali - Scheda per l'autovalutazione](#)

- Advanced user of Microsoft Office programmes (Word processor, Acrobat, Excel, Power Point, Access);
- Very good competences on scientific and commercial GNSS static and kinematic scientific, commercial and open source Data Processing Software's and GNSS data adjustment (commercial: Trimble Terraflex and Catalyst, Topcon Tools, Leica Spider; scientific: GAMIT-GLOBK, Bernese; open source and free: RTKLIB), 3D Modelling, Remote Sensing, Cartographic, Photogrammetric, GIS (Geographical Information System) and WebGIS scientific, commercial, open source and free Software's;
- Very good competences on GNSS/INS integration and processing (Applanix POS/LV).

**Other competencies**

June 1992

**Abilitation to Engineering carrier**

University of Trieste, Italy

Abilitation to Engineering Albo A, Civil and Environmental sector.

**Driving licence(s)**

A, B

**ADDITIONAL INFORMATION**

**Publications**

Author and co-author of more than 120 scientific publications on national and international Journals and national and international Proceedings.

Editor of the Book: "New advanced GNSS and 3D spatial techniques", Springer&Verlag.

**Presentations**

She participated to many national and international Workshops presenting scientific papers.

**Actual Projects**

Partner of **HARMO-DATA Project**, Italia-Slovenia Interreg V-A, funded by European Union.

**Total budget: € 1.120.240; GeoSNav Lab budget: € 136.000.**

Partner of **GRC-MS** (Galileo Reference Center – Member States) **Project**, coordinated by CNES (Centre national d'études spatiales), funded by GSA (European GNSS Agency), WP 5.3 Field campaigns - real-time e post-processing tests to assess Kinematic Galileo performances in aerial, maritime and road applications in different environmental conditions.

**Total budget: € 7.600.000; GeoSNav Lab: € 111.629.**

#### Seminars

Organization and management of many national and international Seminars on: Reference Systems and Cartography - GNSS data processing and analysis -3D spatial techniques for environmental monitoring.

#### Awards

GSA (European GNSS Agency) and EC (European Commission) External Expert e Technical Reviewer.

Member of Scientific Programme Committee of the 13th International Conference on Marine Navigation and Safety of Sea Transportation TransNav 2019.

#### Association membership

Membership on Editorial board and International Programming Council of *TransNav*, the International Journal on Marine Navigation and Safety of Sea Transportation.

Reviewer of the open access Journal: Remote Sensing (ISSN 2072-4292).

Reviewer and member of Reports on Geodesy and Geoinformatics, Warsaw, Poland.

Reviewer and member of the Editorial Board of Geodetski Vestnik, Journal of Association of Slovenian Surveyors (ZGS).

Reviewer and member of the Editorial Board of *Atti dell'Istituto Italiano di Navigazione*.

Member of SIFET (Società Italiana di Fotogrammetria e Topografia).

Member of IIN (Italian Institute of Navigation).

Since 2008 she is a member of ICG (International Committee on GNSS).

#### Personal Interests

Enjoy music, literature, classical and modern arts.

Enjoy all sports particularly dance, swimming, skiing, skating, mountain and glacier trekking, mountain biking.

Scuba diving international licence – FIPS/CMAS.

#### Personnel Data

I authorize my personnel data treatment based on Legislative Decree June 30<sup>th</sup> 2003, n. 196 "Code in the field of personnel data protection" ("Codice in materia di protezione dei dati personali").