

## **Prof. Ing. Giorgio FRUNZIO**

born in Naples on 17 February 1955 - married with two children

### **TRAINING**

High School Diploma at the State Scientific High School "G. Mercalli " of Naples with the vote of 54/60 in the school year 1972/1973

Graduated in Civil Engineering Transport on July 26th 1978 with 110 and Lode / 110 discussing the thesis speaker on prof. Vincenzo Franciosi and prof. Francesco Russo Spena.

From 1978 to 1985 he carried out study and research activities at the Institute of Building Science (later Department) of the Faculty of Engineering of the University of Naples Federico II.

In the academic years 1983/84 and 1984/85 he taught, by contract, Geometry in the Faculty of Engineering of the University of Reggio Calabria.

### **UNIVERSITY AND TEACHING ROLE**

From 1985 to 1989 University Researcher at the Faculty of Engineering of the University of Naples Federico II - Construction Science grouping.

From 1989 to 2000 Assistant Professor at the University of Engineering of Studies of Naples Federico II - grouping of Building Science.

From 1990 to 1993 Assignment of Construction Science for Electrical Students at the Faculty of Engineering of the University of Naples Federico II

From 1993 to 1994 Assignment of Construction Science as part of the University Diploma in Engineering of Structures at the Faculty of Engineering of the University of Naples Federico II

From 1994 to 1995 Assignment of Testing and Testing of Materials and Structures under the University Diploma in Structural Engineering at the Faculty of Engineering of the University of Studies of Naples Federico II

From 1995 to 1996, Deputy Professor of Construction Science for aeronautical students at the Faculty of Engineering of the Second University of Naples (seat of Aversa)

From 1996 to 2001 Deputy Professor of Construction Science at the Faculty of Architecture of the Second University of Naples (Aversa headquarters)

From 1997 to 2001 Assignment of the course of Experimentation of Materials, Models and Structures at the Faculty of Engineering of the University of Naples Federico II

From 2001 to today Associate Professor of Construction Science at the Faculty of Architecture of the Second University of Naples, seat of Aversa, today Department of Architecture and Industrial Design.

Since he was a member of the Department of Architecture he has always carried out the Building Science Course for the Single Cycle Degree Program

Over the years he has been in charge of other courses, such as: Structural Design, Experimentation of Materials, Structural verification, verification of materials and structures

In the academic years 2006/07 and 2007/08 he held the Laboratori I and II courses within the School of Specialization in teaching. Espeerienza repeated with the same course in 2009/10 for the TFA.

From the Academic Year 2017/2018 he is in charge of the Statics course for the Single Cycle Master's Degree From the Academic Year 2018/2019 he is in charge of the Course on Elements of Building Science for the Course Degree in Building Sciences and Techniques.

### **INSTITUTIONAL ACTIVITY**

Researcher representative at the Faculty Council from 1987 to 1993

From 1989 to 1997 representative of the Department of Building Science at the CIBEC (center Interdepartmental for Cultural Heritage)

From 1989 to 1999 Head of the Materials and Structures Test Laboratory of the Science Department of the Construction of the University of Naples Federico II

Member of the Faculty Board of the Doctorate in Structural Consolidation activated at the Department of Civil Engineering of the Faculty of Engineering of the Second University of Naples  
Member of the Scientific Council of the RIAS - Interdepartmental Center of Services of the Second University of the Studies of Naples

Member of the Teaching Board of the Doctorate in Architecture, Industrial Design and Cultural Heritage of the Second University of Naples

Member of the Commission, wanted by the CNR and coordinated by prof. Paolo ZANON, who wrote the Instructions for the design, construction and testing of WOOD structures, which today is subjected to public inquiry entitled "INSTRUCTIONS FOR THE PROJECT, THE EXECUTION AND THE CONTROL OF WOODEN STRUCTURES CNR-DT 206-2006".

Member of the Commission, wanted by the CNR and coordinated by prof. Franco Maceri, who has in progress the drawing up instructions for the design, construction and testing of GLASS structures

Member of the TeDia Association. - Diagnosti technicians.

## RESEARCH ACTIVITY

Coordinator of research groups on different topics of the scientific disciplinary grouping:

- Anisotropic behavior of walls with particular reference to the influence of mortars;
- Assessment of the safety of masonry arch bridges by comparing "geometric" methods with solutions to the finite elements;
- Study of materials and structural typologies of Neapolitan buildings in yellow tuff, also through in situ tests and dynamic laboratory surveys;
- Tensile strength of concrete by inserting expansion plugs (evaluation of experimental results);
- "Historical" assessment of concrete strength; assessment of the degradation and factors that it determine;
- Dynamic behavior of small objects for the purpose of seismic protection of works of art;
- Analytical approach to the evaluation of the resistance capacity of masonry buildings subject to earthquake;
- Analysis of the mechanical properties of "antique" wood. Evaluation of the different levels of degradation.
- Mechanical properties of Structural Glass

As part of the research, there were funding and / or agreements to which it contributed

- 1) Coordinator of the commission established by the Dean of the Faculty for the constitution of the Laboratory for the Built Environment contributing to the preparation for the request for funding within the NOPs, (funding obtained)
- 2) Antique Wood: Modeling, experimental investigations, reinforcement interventions and their modeling. - PRIN Miur financing;
- 3) Seismic analysis for the protection of small objects - Requested Regional Law funding n. 5;
- 4) Assessment of seismic risk on existing structures in c.a. - Considerations relating to existing cases or active agreements: Province of Avellino,
- 5) Recovery of assets confiscated from the Camorra;
- 6) Consolidation and protection of Neapolitan yellow tuff - activity in collaboration with prof. A. Vitale of the TeDia association and of the DIMP of the University of Naples "Federico II";
- 7) On-site coordinator of the activities carried out on behalf of the BENECON in relation to the surveys on walls of the Church of the Nativity of Bethlehem in Palestine under a convention with the Palestinian National Authority with the parent company of the University of Ferrara.
- 8) Mechanical properties of structural glass - Experimental activity within the conventions of RIAS.

- 9) Participation in the activities of the BENECON Regional Competence Center in the unit coordinated by the prof. Antonello De Luca. Evaluation of the static conditions of buildings of historical and cultural interest in Tianjin (China) within the activities of the Center and the agreement with the SIRENA Consortium of Naples
- 10) Participation in the Convention of the Department of Culture of the Project for the re-use project a social goals of the Villa of Walter Schiavone in Casal di Principe (CE) requisitioned as well made with illicit proceeds
- 11) Agreement with the Naples North ASL for the evaluation of the Safety of the Giugliano Hospital (NA) San Giuliano.

Author or co-author of over 60 scientific articles published in journals, presented at conferences or parts of volumes.

#### ORGANIZATIONAL ACTIVITY

- Member of the Cominato Local Organizer of the Aimeta Convention of 1995 held in Naples
- Contributed (with the Te.Dia association) to the organization of the Study Day on Diagnostics of Building Materials on 03.12.2003 held in the Real Site of San Leucio (CE) and edited by the volume published for the occasion;
- Member of the Organizing Committee of the DIACOMAST Conference held in the Real Site of San Leucio on 21 and 22 February 2008 on the issues of diagnostics of the building.

#### PROFESSIONAL ACTIVITY

Since graduation, she has also worked in the field of structural design, too complex, as a temporary professor up to 2016, the year in which he opted for Full Time.

#### OTHER

Founding Member of the Center for Studies in Economic and Social Policy, Adone Zoli Foundation - Moral Institution

Member of the Neapolitan Timekeepers. Association.