



Professor Maurizio Froli

See:

<http://www.mauriziofroli.it/lang/it-it/attivita-didattica/>

<http://www2.ing.unipi.it/griff/>

<http://www2.ing.unipi.it/griff/index.html>

University of Pisa
Faculty of Engineering

1980: with honors, degree in Civil Engineering from the University of Pisa.

1982 he won the competition for Assistant Professor of Structural Engineering in the Faculty of Engineering of Pisa and in the same year he won a place in the perfecting of the Higher School of University Studies and Specialization of St. Anne.

1990: he was appointed Member of the Expert Commit Européen de Normalisation and is called to be part of the Project Team for the preparation of the Chapter - Thermal Actions Eurocode 1.

1993 writes the formula of Thermal Gradient warping for steel beams and thin-walled open profile.

1998 won the national competition for Associate Professor of Structural Engineering and is called by the University of Pisa.

1999 looks first at the international level, through analysis of the experimental strain gauge thrust in the field of large deformations, the Plastic Slow Wave Reynolds and develop a mathematical model that describes the phenomenon of discontinuous plastic deformation in steel reinforced concrete.

2004 starts in Italy the tendency of theoretical, experimental and design on glass structures for which she won two competitions, one of which PRIN as national manager.

2006 invented and patented the beam Vitrea Tensegrity which achieves success with the first two prototypes (TVT Alpha and Beta).

2009: he was appointed Head of the Laboratory Scientific Officer for the Experiences of Building Materials, University of Pisa. In the same year he won, with the invention of the glassy Tensegrity Beams, the first place in search of Vespucci Award and won with the three-year program of research SISMIVETRA a scholarship for young researchers funded by the Region of Tuscany.

2011: International Society for Shell and Spatial Structures assigns the Hangai Prize at the theoretical method of testing the resistance of glass structures called Design Crack Method developed under his guidance the pupil Manuel Santarsiero.

2012: creates the third prototype (TVT Range) of Tensegrity Beams vitreous which, with its free span of 12 meters, he joined the group of glass beams longest in the world.

2013: invented and patented construction system Tensegrity glassy solids (SVT) that extends to space the structural concept of the TVT. In the same year is a scientific consultant in the project, among the winners of the POR Regione Toscana "Aid to SMEs for acquisition of qualified services," Energetics of a fully glazed gallery in which the beams are taken as components of TVT bearing frames.

Scientific advice rendered by Maurizio Froli on specialized problems of Structural Engineering in the past have included the thermal monitoring of the viaduct casilina for the enterprise Ferrocemento of Rome, the thermal behavior of the dam Ancipa for the Board of Public Works, the structural design and morphological prototype of central trigenerativa Enel "Diamond" on behalf of Consorzio Pisa Ricerche.

Maurizio Froli, author of a total of more than 120 publications, he is currently scientific reviewer of the following International Journals:

Structural Engineering International,
International Journal of Solids and Structures,
Journal of Mechanics of Materials and Structures,
International Journal of Mechanical Sciences,
Advances in Structural Engineering.

'Vespucci' Prize for Research

Already in 2009 Maurizio Froli came top in the classification for the 'Vespucci' Prize for his research on a TVT glass beam patent. This consists of glass beams assembled by means of pre-compression with steel cables which are highly secure despite the large empty spaces between them. This has been perfectly engineered and a glass beam prototype of 12 metres in length is under construction .