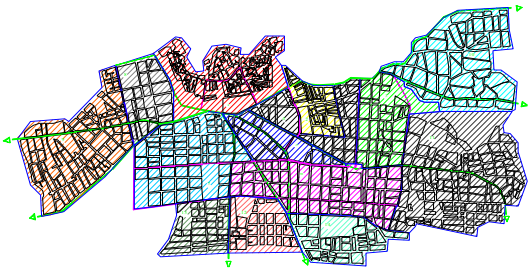
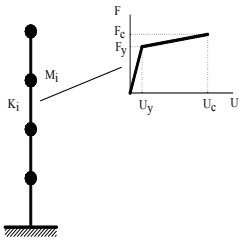
NICOLA NISTICO'
CURRICULUM VITAE ET STUDIORUM

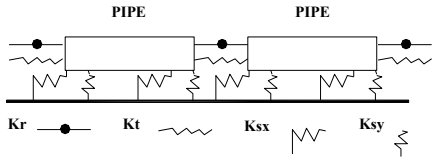
2013

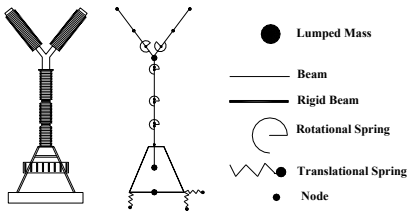


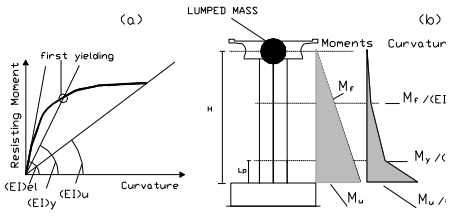
Primary road network

Secondary road network









CURRICULUM VITAE ED STUDIORUM

NICOLA NISTICO', born in 1961. Associate professor of structural engineering, at the University of Roma "*La Sapienza*".

1988: Special student at Massachusetts Institute of Technology (USA, Boston).
1989: Degree in Civil Engineering (University of Roma "*La Sapienza*")
1990 ÷1997: Researcher of the Italian Earthquake Engineering Center.
1994: Ph.D. in Structural Engineering (University of Florence).
1997: Assistant professor of structural engineering at the Engineering Faculty of the University of Roma "*La Sapienza*".
2005: Associate professor of structural engineering at the Engineering Faculty of the University of Roma "*La Sapienza*".

Fields of interest: expert systems; seismic assessment, design and retrofitting; FRP materials.

JOB CONTACTS

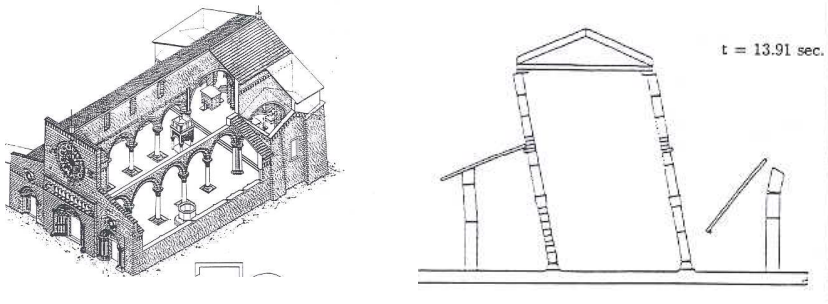
Dipartimento di Ingegneria Strutturale e Geotecnica
Facoltà di Ingegneria – Sapienza Università di Roma
Via Eudossiana 18 – 00184 Roma - ITALY

✉ nicola.nistico@uniroma1.it
☎ +39 06.44585.369
+39 06.4884850
+39 328.1140497

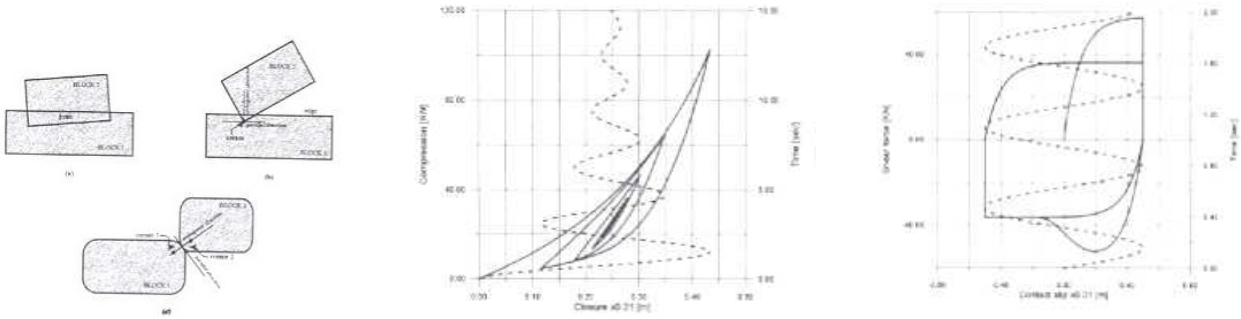
Nicola Nisticò, born 1n 1961, has graduated in engineering at the University "LA SAPIENZA" of Roma.

He attended some classes at the M.I.T. (BOSTON) where he studied “Artificial Intelligence” applied to structural engineering.

He has obtained the PhD at the University of Firenze in 1994 (Thesis title: Structural behaviour of “Block Masonry”: experiments and numerical investigation). The thesis was oriented to 1) the validation of the Discret Element Method for the seismic assessment of Block Masonry Structures, and 2) the formulation and implementation of a constitutive model for contact-impact problem.



Discrete Element Modelling and Analysis of the Church of S. Maria Maggiore in Tuscania (ITALY): Simulation of the Collapse Mechanism for transversal seismic action.



Formulation and implementation of a constitutive model for contact-impact problem.

He has been Researcher at the GNDT where he has been involved in seismic vulnerability evaluation of existing structures.

Since 1997 is assistant professor of structural engineering at the University of Rome “LA SAPIENZA” where, after the attainment of the associated professor title, is actually teaching a class of “Constructions” and “Advanced Structural Design”.

His scientific activity has addressed the topics of a) expert systems b) seismic assessment and retrofitting of existing structures b) composite materials.

Concerning the topic (a) he designed and partially implemented an integrated expert system oriented to the seismic assessment of "AEC organisms" (Architectural and Construction "objects", like buildings) and for the production of the related seismic risk maps. Organism data are supposed to be collected from on-site surveys, while the system provides an expert interface to assist the surveyor in the geometric and mechanical description of the AEC organism itself. Data are subsequently integrated in a CAD (Computer Aided Design) system interface and then analyzed on the basis of "intelligent" risk estimation models, in order to compute the organism seismic risk. Finally, the "local" risk analysis is connected to the "global" analysis (city or province) through a GIS (Geographical Information System) interface.

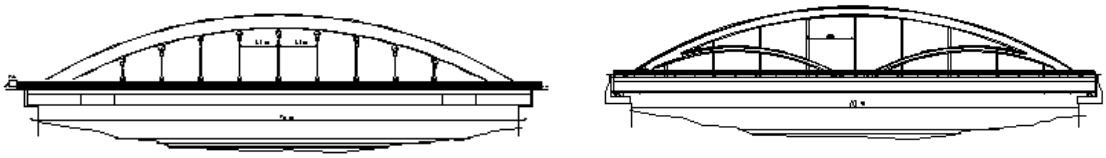
Concerning the topic (b) he has been involved in four research project that are: 1) seismic vulnerability evaluation of the public existing buildings located in Emilia Romagna (Italy), 2) seismic assessment of Buildings and Lifelines located in Chania (Creta), 3) seismic risk evaluation of the Catania (Italy) existing bridges, 4) seismic assessment and retrofitting of the Catania (Italy) existing buildings.

Concerning Composite materials (topic c), he devoted his activity to Fiber Reinforced Concrete as well as FRP studies oriented to the formulation of analytical predictive equations for confined concrete. The studies included experimental tests.

Experimental investigation on square and rectangular columns confined by CFRP.

The scientific activities has been combined with applicative studies finalized to innovative design techniques such as those concerning c) the design of bowstring bridges for high-speed railway transportation and d) the application of innovative device for the improvement of seismic performance of new and existing structures.

Concerning railway bowstring bridges, he has been involved in a joint research program between the Italian Railway Transportation Organization (RFI) and the University of Roma "LA SAPIENZA". The study investigated some specific questions, namely: 1) global and dynamic behaviour 2) fatigue, particularly regarding the hangers 3) passenger comfort. Several structural solutions, with span length ranging from 70 and 120 m, have been investigated and studied in detail. A new structural solution has been proposed with the aim to improve the performance regarding passenger comfort; the solution, named MABB (Multiple Arches Bowstring Bridge) consists of an external arch connected to two internal arches by means of the hangers.



Traditional Bowstring Bridge and Multiple Arches bowstring Bridge.

Concerning the application of innovative devices, he has been involved in he seismic protection of industrial buildings. The goal of the design was the seismic isolation of cement production equipments: dissipative seismic isolators have been implemented in combination with sliding devices.

He is actually investigating, the feasibility of the installation of seismic isolators under the roof of 2 floor precasted buildings: the goal is the use of the roof as Tuned Mass Damper.