# **Aristomenis V. Tsantilis** Civil Engineer, PhD

email: <a href="mailto:tsantilis.info@gmail.com">tsantilis.info@gmail.com</a>
tel. +30 6937090336



## **EDUCATION**

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2011 – 2016	University of Patras, Greece PhD in Civil Engineering Structural Materials Laboratory			
2004 – 2005	Imperial College of Science, UK MSc in Civil Engineering Steel Structural Design & Business Management			
1998 – 2003	National Technical University of Athens, Greece B.Sc. in Civil Engineering			
WORK EXPERIENCE				
2016 -	Partnership with A.T. CONSULTANTS as structural engineer in infrastructure projects (bridge & building design)			
2010 -	Independent structural engineer as a consultant in projects concerning buildings, infrastructures and geotechnical projects.			
	<ul> <li>Concrete, steel and composite building design</li> <li>Concrete and composite steel bridges design</li> <li>Cuts, embankments, deep foundations and retaining structures design</li> <li>Cut &amp; Cover/Top Down tunneling design</li> <li>Rehabilitation of existing building</li> </ul>			
2008 – 2010	Okto S.A. – Metal Construction Design and supervision of large scale steel buildings			
2006 – 2010	Triaina S.A. Design and supervision of buildings			
	<ul><li>Residential</li><li>Commercial</li><li>Industrial</li></ul>			
2005 – 2006	Greek Army Rehabilitation of a three storey building in Nauplio, Greece			
2003 – 2004	Technical Office Theodosopoulos Panagiotis Design and supervision of private residential multistory buildings			

## **SKILLS & QUALIFICATIONS**

Excellent knowledge of the following Civil Engineering programs:

Structu	iral (C-concrete, S-stee)	, SC-composite)	•	StereoStatika	(C)
•	SOFiSTiK	(C-S-SC)	•	Fedra	(Masonry)
•	ETABS – SAP2000	(C-S-SC)	•	Scada Masonry	(Masonry)

• ANSYS (FEA)

OpenSees

FESPA (C-Rehabilitation)

• INSTANT 2016 (S)

EC4 COMPOSITE (SC)

#### Geotechnical

• PLAXIS 2012

• LARIX-5

## Design and modeling

- AutoCad
- TEKLA

#### Codes

Greek codes, Eurocodes, DIN, BS

#### **Expertise**

- Linear and nonlinear static and dynamic time-history analysis of new and existing structures using Performance Based Approach according to EC8 Part 3.
- Evaluation of earthquake resistance and strengthening of existing structures (buildings, bridges) using shotcrete, steel plates, FRP/TRM fibers and exterior steel grid techniques.
- Evaluation of concrete and steel structures using destructive and nondestructive testing methods (core tests, pull-out/off, surface absorption, reinforcement detection, rebound hammer testing, ultrasonic test).
- Strengthening techniques of existing foundations (micropiles).
- Evaluation and stabilization of existing slopes and embankments (piles and retaining structures).
- Analysis of deep excavations using diaphragm walls, secant piles, soldier pile method [berlin wall] using concrete or composite steel piles, sheet piling, anchoring).
- Finite Element Analysis (FEA) of planar and 3D structures.

#### **SCHOLARSHIPS**

1998 – 2003 I.S. Latsis Foundation during my undergraduate studies

## RESEARCH EXPERIENCE

RESEARCH EAFERIENCE				
2017-present	Innovative systems of energy efficiency together with strengthening of existing masonry buildings			
2015	Novel design concepts for ENergy related Steel STRuctures using Advanced Materials (ENSSTRAM)			
2013	PZT Monitoring of Reinforced Concrete Beams Retrofitted with CFRP			

## SELECTED PUBLICATIONS

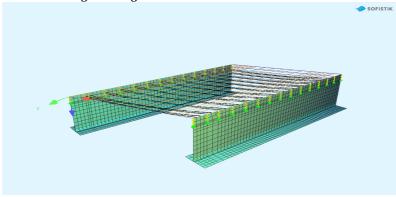
A. Tsantilis, T. C. Triantafillou, (2017) "Innovative Seismic Isolation of Masonry Infills using Cellular Materials at the Interface with the Surrounding RC Frames", *Engineering Structures* 155 (2018) 279-297.

A. Tsantilis, T. C. Triantafillou, (2016) "Seismic Isolation of Infills using Cellular Material Joints", 17<sup>th</sup> Concrete Conference, Thessaloniki, a/a 122

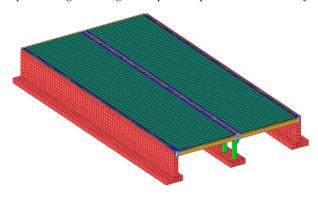
C.P. Providakis, T. C. Triantafillou, D. L. Karabalis, A. Papanicolaou, K. Stefanaki, A. Tsantilis and E. Tzoura, (2013) "Simulation of PZT Monitoring of Reinforced Concrete Beams Retrofitted with CFRP", *Journal of Smart Structures and Systems*, Techno Press, 14(5), 811-830.

### SELECTED PROJECTS

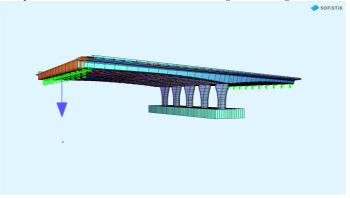
Single Span Prestressed Integral Bridge:



Expressway Bridge: 2 spans Integral Bridge with precast prestressed beams for superstructure



Bridge BRO2: 2 spans prestressed cast in situ multi cell box girder bridge.



Single span composite bridge: 1 span I-beam girder composite bridge on isolation bearings

