# Resume

## Arturo Montalva, P.E.
## Project Manager, Stone Security Engineering, PC

### Background
Arturo Montalva has over 10 years professional experience in design and analysis of a wide range of structures with a general background in mechanical/structural engineering and in-depth expertise in the area of linear and non-linear structural dynamics. Mr. Montalva specializes in the areas of structural analysis and design, blast analysis and design, and finite element analysis.

He has been involved in a variety of projects including bridge, building, and blast design. His experience covers renovations of historic buildings, concept design of new high-rise buildings, analysis development of new buildings, blast analysis and design of structural elements and progressive collapse analysis. He has utilized his knowledge in numerical methods to develop in-house analytical tools as well as to perform applied design and analysis using commercial and government software.

### Education
Universidad Politécnica de Valencia, Spain. Industrial/Mechanical Engineer, 1999
Universidad Politécnica de Valencia, Spain. PhD Candidate, 2006

### Registrations
Professional Civil Engineer, CA 2007 (#71561)
Professional Industrial/Mechanical Engineer, Valencia, Spain 2001 (#3755)

### Representative Project Experience
- Progressive Collapse and Anti-terrorism peer review for air traffic control tower required to meet UFC 4-023-03 and UFC 4-010-01, Atlanta, Georgia.
- Blast analysis and design of a steel arch-based atrium roof using SAP2000 and DYNA3D, Fort Belvoir, Virginia.
- Anti-terrorism design (meeting UFC 4-010-01) for new Military Exchange and Commissary, Yuma, Arizona.
- Anti-terrorism design (meeting UFC 4-010-01) for retrofit of historic military administration building, Wright Patterson Air Force Base, Ohio.
- Blast and security criteria definition for the renovation and expansion of the Calexico U.S. Border Station, Calexico, California.
- Threat and risk assessment, and security criteria development for the New York State Police Headquarters, Albany, New York.

- Risk assessment development and blast design for the new GSA U.S. Courthouse in Coeur d'Alene, Idaho.
- Non-linear dynamic progressive collapse analysis of major high rise federal office buildings to verify UFC compliance in Cleveland, Ohio.
- Blast and progressive collapse analysis and design of a seven stories reinforced concrete building to meet ISC Security criteria and GCA Progressive Collapse criteria in Cleveland, Ohio.

## Employment History

Project Manager, Stone Security Engineering, New York, NY (January 2010 – present)
Senior Engineer, Hinman Consulting Engineers, San Francisco, CA (November 2006 – December 2009)
Senior Engineer, Gilsanz Murray Steficek LLP, NY, NY (April 2003 – October 2006)
Associate Professor, Universidad Politécnica de Valencia, Spain (November 2001 – March 2003)
Engineer, Tecnica y Proyectos S.A., Valencia, Spain (January 2000 – October 2001)
Interim Engineer, Tecnica y Proyectos S.A., Valencia, Spain (June 1999 – December 1999)

## Technical Committees and Professional Affiliations

American Society of Civil Engineers, USA, Member #496161
ASIS International, USA, Member #290156
Society of American Military Engineers (SAME), USA, Member #301228

## Publications

Alcalde J., Montalva A "*Resistencia de Materiales*", SPUPV-97.318.

Montalva A., Ivorra S., Marjanishvili S. "*Air-Blast Analysis of Beam-Columns using Galerkin Formulation*", PROTECT 2007**,** Whistler, Canada, August 20-22 2007.

Montalva A., Marjanishvili S. "*Modeling Approach for Progressive Collapse Analysis*", Structural Engineers World Congress, Bangalore, India, November 2-7 2007.

Montalva A., Loukaides E., Long M. & Gallant S. "*Analysis of Steel Columns for Air-Blast Loads*", ISIEMS 12.1, Orlando, September 17-21-2007

Chan J., Montalva A., Marjanishvili S. "*Effects of Forcible Removal of Elements in Progressive Collapse Analysis*", ISIEMS 12.1, Orlando, September 17-21 2007

Godinho J., Montalva A. & Gallant S. "*Analysis of Steel Columns for Air-blast Loads*" Structures Magazine. November 2007

Montalva A., Godinho J., Marjanishvili S. "*Air-blast Failure Criteria for Columns using Finite Element Methods*". Structures 2008, Vancouver

Montalva A., Chan J., Marjanishvili S. "*Single Degree of Freedom Characterization of Impact Load on Continuous Systems*". Structures 2008, Vancouver

Montalva A., Tadepalli T., Chan J., Marjanishvili S. "*Progressive Collapse as Implicit-Explicit Multi-step Initial Condition Dynamic Analysis*". EM08, Minneapolis

Montalva A., Pons i Frigola V., Herrera O., Pons i Grau V. and Gilsanz R, "A *Catastrophic Collapse: Windsor Building Fire (Madrid, 2005")*. Fourth International Conference on Forensic Engineering, London 2008.

**Public Speaking**

*9th US National Congress on Computational Mechanics*, "Air-Blast Analysis of Beam-Columns using Galerkin Formulation" San Francisco, July 22-26 2007.

PROTECT 2007, "Air-Blast Analysis of Beam-Columns using Galerkin Formulation", Whistler, Canada, August 20-22 2007.

*International Symposium on Interaction of the Effects of Munitions with Structures* (ISIEMS 12.1), "Analysis of Steel Columns for Air-Blast Loads", Orlando, September 17-21 2007

*Structures 2008 Congress*, "Performance-based Techniques for Columns Subjected to Air-Blast". Vancouver, April 24-26 2008

*Structures 2008 Congress*, "Air-blast Failure Criteria for Columns using Finite Element Methods". Vancouver, April 24-26 2008

*Fourth International Conference on Forensic Engineering*, "A Catastrophic Collapse: Windsor Building Fire (Madrid, 2005)". London, December 3-4 2008.