

Genock Portela, Ph.D.

Professor

Ph.D. University of Puerto Rico, Mayagüez Campus

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Professional Preparation

- Ph.D. in Structural Engineering, University of Puerto Rico, Mayagüez Campus, 2004.
- M.S. in Structural Engineering, University of Puerto Rico, Mayagüez Campus, 2000.
- B.S. in Civil Engineering, University of Puerto Rico, Mayagüez Campus, 1997.

Appointments

- 2008-present Assistant Professor, University of Puerto Rico - Mayagüez
- 2004-2008 Adjunct Faculty, General Engineering, University of Puerto Rico - Mayagüez

Professional Preparation

- Ph.D. in Structural Engineering, University of Puerto Rico, Mayagüez Campus, 2004.
- M.S. in Structural Engineering, University of Puerto Rico, Mayagüez Campus, 2000.
- B.S. in Civil Engineering, University of Puerto Rico, Mayagüez Campus, 1997.

Significant Publications

- Portela G. and Godoy L.A. (2007), "Wind pressures and buckling of grouped steel tanks". *Wind and Structures*, Vol. 10(1), pp. 23-44.
- Portela G., Virella J.C., Godoy L.A. (2006), "Computational model of wind damage in unanchored tanks". Proceedings in 23rd South Eastern Conference on Theoretical and Applied Mechanics (SECTAM XXIII), Mayagüez, P.R.
- Virella, J.C., Portela G. and Godoy L.A., (2006) "Toward an inventory and vulnerability of aboveground storage tanks in Puerto Rico. 4th Latin American and Caribbean Conference for Engineering and Technology, Breaking Frontiers and Barriers in Engineering: Education Research and Practice", Mayagüez, P.R.
- Portela G. and Godoy L. A. (2005), "A Cost-effective technique to repair cylindrical steel tanks exposed to hurricane wind loads in tropical settings". Proceedings of the World Federation of Engineering Organizations (WFEO, October 2005), San Juan, Puerto Rico.
- Godoy L. A., Jaca R., Portela G., Sosa E. M., Virella J. C. (2005), "Damage of Oil Storage Tanks due to Wind and Earthquake". Proceedings of the International Conference on the Behavior of Structures with Damage, DAMSTRUC 2005, Universidad Federal Fluminense, Rio de Janeiro, Brasil, August 2005.

- Godoy, L. A., Jaca R., Portela, G., Sosa, E. M., Virella, J. C. (2005), Structural consequences of natural hazards on metal storage tanks”. Third Latin American and Caribbean Conference for Engineering and Technology (LACCEI): Advances in Engineering and Technology A Global Perspective, Cartagena de Indias, Colombia.
- Portela G. and Godoy L. A. (2005), “Shielding effects and buckling of steel tanks in tandem arrays under wind pressures”. Wind and Structures. Vol. 8(5), pp. 325-342.
- Portela G. and Godoy L. A. (2005), “Wind pressures and buckling of cylindrical steel tanks: Tanks with dome roofs”. Journal of Constructional Steel Research, Vol. 61, pp. 786-807.
- Portela G. and Godoy L. A. (2005), “Wind pressures and buckling of cylindrical steel tanks: Tanks with conical roofs”. Journal of Constructional Steel Research, Vol. 61, pp. 808-824.
- Godoy, L. A., Sosa, E. M., and Portela, G. (2004), “Nonlinear dynamics and buckling of steel tanks with conical roof under wind”. Proceedings of the Fourth International Conference on Thin-Walled Structures, held in Loughborough, Leicestershire, United Kingdom, pp. 407-414.
- Portela-Gauthier, G., Godoy, L. A., and Zapata, R. (2003), “Wind tunnel simulation of group effects in tank farms”. Dimensión. Revista del Colegio de Ingenieros y Agrimensores de Puerto Rico, Volume 2, pp. 25-30.
- Godoy, L. A., Portela-Gauthier, G., Sosa, E. M., Suárez, L. E., Virella, J. C., and Zapata, R. (2002), “Damage due to buckling in above ground storage tanks”. Proceedings of the International Conference on the Behavior of Structures with Damage, DAMSTRUC 2002, Universidad Federal Fluminense, Rio de Janeiro, Brazil.
- Portela-Gauthier, G., Godoy, L. A., and Zapata, R. (2002), “Distribución de presiones de vientos huracanados sobre tanques cortos mediante estudios de túnel de viento”. Revista Internacional de Desastres Naturales, Accidentes e Infraestructura Civil (in Spanish). Volume 1, Number 3, pp. 63-81.
- Martínez-Cruzado, J. A., Irizarry, J., Portela-Gauthier, G. (2001), “Espectros de diseño para las ciudades principales de Puerto Rico basado en registros de aceleración mundiales”. Revista Internacional de Desastres Naturales, Accidentes e Infraestructura Civil (Spanish). Volume 1, Number 1, pp. 21-31.

Research Projects

- Agency: US Army Corps of Engineers
 - *Evaluation of Bridges Subjected to Military Loading and Dynamic Hydraulic Effects*
 - *Assessment of Fracture Critical Members and Fatigue Prone Details in US Army Bridges*
 - *Assessment of Blast Damaged Structural Bridge Components*
- UPRM-Seed
 - (PI): *Performance of Pre-cambered Composite Structural members Subjected to Dynamic Loads*

Synergistic Activities

- Jan 2009-Present: “Planning and Development”: President, Engineering faculty, UPRM
- 2004-2006: “Computational Resources”: President, Engineering faculty, UPRM
- 2006: Promotion Committee – “Twenty Third South Eastern Conference on Theoretical and Applied Mechanics (SECTAM XXIII)”. Applications of Applied Mechanics in Infrastructure. Mayagüez Resort & Casino, Mayagüez, P.R.
- Lab Director
 - 2004-2006: Engineering Computer Laboratory and Video-Conferencing Room, Department of Engineering Sciences and Materials, UPRM
 - 2005: Engineering Graphics Laboratories, Department of Engineering Sciences and Materials, UPRM

Professional Membership

- 2009 – Present Precast Concrete Institute (PCI)
- 2009 – Present American Society for Engineering Education (ASEE)
- 2004 – 2007 American Association for Wind Engineering (AAWE)
- 2002 - Present CIAPR – Puerto Rico Board of Engineers, Licensed Professional Engineer

Professional Affiliations

- Technical and Professional Associations:
- American Society of Civil Engineers
- International Conference of Building Officials
- Precast / Prestressed Concrete Institute
- Colegio de Ingenieros y Agrimensores de Puerto Rico