

# Jorge Tito, P.E., Ph.D.

## Civil/Structural Engineer

### Core skills

- Teaching courses of Concrete and Steel Structures, Concrete Technology, Software, Wood Design.
  - Estimating and elaboration of proposals
  - Finite Elements Structural Analysis: Static and Dynamic Loads
  - Concrete and Steel Design
  - Construction and design norms
  - Concrete Technology and Construction Support
  - Laboratory of Structural Engineering
  - Software development for engineering applications
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### Professional summary

My teaching philosophy consists in combining theoretical lessons with the use of software applications, laboratory work, and industry interaction. As faculty member, I also consider necessary to participate in the administration activities of the University to improve the quality of the Academic Programs.

As Structural Engineer, I have experience in the analysis, design, management, and construction support of petrochemical plants, LNG terminals, revamps, bridges, and buildings. My design goal is to obtain a cost-effective structure, considering safety, serviceability, durability, schedule, workability, budget, existing obstacles, and specifications.

### Professional qualifications / registrations

Registered Professional Engineer in the States of Texas, Louisiana, and Georgia.

### Education

MSc-PhD Civil Engineering-Structures – University of Puerto Rico at Mayagüez. Puerto Rico.  
BS Civil Engineer. Pontifical Catholic University of Peru. Lima, Peru.

### Memberships / affiliations

American Institute of Steel Construction, AISC.

Member of Structural Engineers Association of Texas, SEAoT.

### Languages

English  
Spanish

### Employment history

#### ACADEMIC

Prairie View A & M University, Prairie View, TX. September 2017 to present. Adjunct  
University of Houston Downtown, Houston, TX. August 2001 to May 2014. Associate Professor  
Polytechnic University of Puerto Rico, San Juan, Puerto Rico. August 1996 to July 2001. Associate Professor  
University of Puerto Rico, Mayagüez and San Juan, Puerto Rico, January 1991 to December 1996. Adjunct  
Professor in Civil Engineering Department (Mayaguez) and Architecture School (San Juan)

#### DESIGN, SUPERVISION, AND CONSTRUCTION

Wood, Houston, TX. October 2017 to Present  
VerBlueTech, Houston, TX. March 2017 to Present  
IHI E&C, Houston, TX. February 2016 to February 2017  
Amec Foster Wheeler, Houston, TX. July 2013 to January 2016  
Foster Wheeler, Houston, TX. January 2006 to July 2010 and October 2001 to July 2004  
H2A Consultant Engineers, PSC, San Juan, Puerto Rico. May 1999 to September 2001  
Contraloria General de la Republica, Lima, Peru. January 1989 to January 1991

SECOVENSA, General Contractors, Lima-Peru. May 1988 to December 1988  
BRUCE S.A. & TIZON S.C.R.L. ASSOCIATES, Pucallpa, Peru. February 1987 to April 1988  
SETECO S.R.L. General Contractors, Pucallpa-Peru. July 1986 to February 1987  
Sistema Nacional de Cooperación Popular, Lima, Peru. January 1984 to May 1986

## Representative projects

- **Associate Professor** of Soil Mechanics, Concrete Technology, Steel Structures, Wood Design, Reinforced Concrete Design, Software Applications. The courses include theory and laboratory work.
- **Advisor of Undergraduate Projects.**  
Development of educational software to provide academic support.  
Laboratory Study of a WT Beam under Flexo-Compression Load.  
Study of structural wood properties.  
Study of properties of light-weight and normal-weight concrete.  
Structural Verification of the Travis Bridge, at Travis Ave. and Buffalo Bayou, Houston, TX.  
Structural study of two 24-ft long T-Beams constructed with lightweight concrete.
- **GCGV Ethylene Cracker Plant. October 2017 to present.** Sr. Engineer. Structural analysis and design of foundations and steel structures for chemical tanks and heavy equipment.
- **Elba LNG. February 2016 to February 2017.** Principal Engineer. Structural analysis and design of concrete and steel structures including piperack, and equipment support. Coordination with other offices for final design.
- **Reliance Petroleum Jamnagar Refinery, 6 Coke Drum Replacement, Jamnagar, India, September 2015 to January 2016.** Sr. Structural Engineer. This project involved the study of existing connections, reinforcement of structural elements, design of temporary foundations for cranes and structures, and verify their structural capacity during lifting and for new permanent loads.
- **Enterprise Products LLC, PDH Unit, Mont Belvieu, TX, July 2013 to August 2015.** Sr. Structural Engineer. As this project was large and complex, I had the responsibility of the structural design of a project area, leading a group of engineers and designers. The work includes the design of 3 table tops for turbines and compressors under dynamic loads, and the design of foundations and steel structures for the corresponding shelters, pipe and cable racks, equipment, and miscellaneous supports. Use of FEA to analyze and design compressor table tops.
- **Cameron LNG. Cameron, LA, July 2015 to January 2016.** Sr. Structural Engineer. Owner's engineer. Review of design and drawings for compressor table tops, shelters, piperack, and other structures. Use of cubic finite element analysis to verify the compressor table tops under static and dynamic loads.
- **Repsol & Irving Oil. Canaport LNG. Saint John, NB, Canada, March 2006 to April 2010.** Sr. Structural Engineer. Owner's engineer. Review of design and construction support for the construction of 3 LNG tanks, shelters, piperack, and other structures.
- **Sempra Energy. Energía Costa Azul LNG. Ensenada, Baja California, Mexico, March 2006 to April 2010.** Sr. Structural Engineer. Owner's engineer. Review of design and construction support for the construction of 3 LNG tanks, shelters, piperack, and other structures.
- **Valero. 4 Drum Delayed Coker. Texas City, TX. October 2001 to July 2003.** Sr. Structural Engineer. Design of Concrete Table Top to support 4 drums, Coker Pit, Coker and 2-Derrick Steel Structures, Pipe Racks, Equipment Support, Pile Foundations, etc.
- Estimating and preliminary structural design for proposals.

## Publications and presentations

"Eccentric Compression Test of WT Shape Steel Braces". Tito, J. *11th LACCEI Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2013.* Cancun, Mexico. August 2013.

"Teaching Green Concrete". Tito, J., Gomez-Rivas, A. 10th LACCEI Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2012. Panama City, Panama. August 2012.

"Models, Computers, and Structural Analysis". Gomez-Rivas, A., Pincus, G., Tito, J. 10th LACCEI Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2012. Panama City, Panama. August 2012.

"Design, Construction, and Test of a Postensioned Segmental Beam". Tito, J., Gomez-Rivas, A. *9th LACCEI Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2011*. Medellin, Colombia. August 2011.

"Learning Software Development Using a Publication Describing the Spinning Ball Trajectory". Tito, Jorge. *Proceeding of the 2011 American Society of Engineering Education Gulf South, Annual Conference*. Houston, TX, March 2011.

"Structural Evaluation of a Steel Girder Pedestrian Bridge". Tito, J. Gomez-Rivas A. *Proceeding of the 2011 Conference for Industry and Education Collaboration*. San Antonio, TX, February 2011

"Use of High Strength Lightweight Concrete to Construct a Postensioned Segmental Beam". Tito, J. Hernandez, L. Trujillo, J. *8th LACCEI Latin American and Caribbean Conference for Engineering and Technology, LACCEI 2010*. Arequipa, Peru. June 2010.

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