J. Paul Smith, Ph.D., SE (OR), PE (OR, CA)

Department of Civil and Environmental Engineering Seattle University, Seattle, WA 98122 smithih@seattleu.edu 206-296-5901

2000-2004

Purdue University

W. Lafayette, Indiana

Ph.D. in Civil Engineering (Structures)

Dissertation: Wall-Frame Structures with Vulnerable Foundations.

1998-2000 **Purdue University** W. Lafayette, Indiana

M.S. in Civil Engineering (Structures)

Thesis: Performance-Related Specifications for Concrete Bridge Superstructures.

1992-1997 Universidad Nacional de Colombia Medellín, Colombia

B.S. in Civil Engineering. Summa Cum Laude.

EMPLOYMENT	
HISTORY	

Sept. 2016-Today

Seattle University

Seattle, Washington

Associate Professor.

Sept. 2010-Sept. 2016

Seattle University

Seattle, Washington

Assistant Professor.

Sept. 2009 – June 2010

Seattle University

Seattle, Washington

Adjunct Professor.

Jan-Sept. 2010

BergerABAM

Federal Way, Washington

Project Engineer, International Ports and Terminals

Sept. 2007-Jan. 2010 Berger/Abam Engineers, Inc. Federal Way, Washington

Senior Engineer, International Ports and Terminals

Sept. 2005-Sept. 2007 Berger/Abam Engineers, Inc. Federal Way, Washington

Engineer, International Ports and Terminals

Jan-April 2008

June-Aug 2005

University of Washington

Seattle, Washington

Adjunct Professor.

Visiting researcher

National Center for Research in Earthquake Engineering Taipei, Taiwan

Aug. 2004- June 2005

Purdue University

W. Lafayette, Indiana

Instructor.

Aug. 1998- Aug 2004

Purdue University

W. Lafayette, Indiana

Research Assistant

June- Aug 2002 University of Tokyo Tokyo, Japan

Visiting Researcher

1998 Universidad Nacional de Colombia Medellin-Colombia

Instructor

RESEARCH INTERESTS

- Earthquake engineering and behavior of structures under impact loading
- o Seismic vulnerability and seismic retrofitting of structures
- o Performance-based methodologies
- o Soil-structure interaction
- Behavior and design of waterfront structures

AWARDS

- Outstanding Faculty Adviser Award, College of Science and Engineering, Seattle University, 2014.
- o ASCE New Faculty Excellence in Teaching Fellowship (ExCEEd, summer 2011)
- National Science Foundation Summer Program in Taiwan (East Asia Pacific Summer Institute, summer 2005).
- o General Electric Faculty for the Future Fellowship, GEFFF (2002-2004).
- National Science Foundation Summer Program in Japan (East Asia Pacific Summer Institute, summer 2002).
- Purdue Graduate Association Travel Grant for the presentation of a technical paper in Finland (May 2000)
- Summa Cum Laude (National University of Colombia, June 1997)
- Best Undergraduate Student Award (Colombian Institute of Investigation and Science, June 1997)
- o B.Sc. Thesis with Merits (National University of Colombia at Medellin, June 1997)
- o President's List, National University of Colombia, Medellin, December 1992-1997.

PUBLICATIONS

REFEREED JOURNAL PUBLICATIONS

- J.P. Smith-Pardo, F.A. Galvis-Lopez (2018), "Rectangular footing dimensions to develop the plastic moment capacity of R/C bridge columns", *Journal of Bridge Engineering*, 23(7): 06018003.
- J.C Reyes, E. Marcillo-Delgado, J.P. Smith-Pardo, O.A. Ardila-Giraldo (2018),
 "Assessment of the effective seismic mass for low-rise framed shear buildings supporting nearly permanent live loads", *Journal of Structural Engineering*, 144(8): 04018098.
- E. Villalobos, C. Sim, J.P Smith-Pardo, S. Pujol, P. Rojas, and M. E. Kreger (2018), "April 16, 2016 Ecuador Earthquake Damage Assessment Survey", *Earthquake Spectra*, in-Press.
- J.P. Smith-Pardo, J.C. Reyes, J.D. Sandoval, and W.M. Hassan (2018), "Evaluation of ASCE 61-14 NSPs for Estimating Seismic Demands of Marginal Wharves", *Earthquakes* and Structures, under review.
- J.C. Reyes, L.A Ardila-Bothia, J.P. Smith-Pardo, J.N. Villamizar-Gonzalez, and O.A Ardila-Giraldo (2016), "Evaluation of the effect of containers on the seismic response of pile-supported storage structures", Engineering Structures, 122 (September): 267-278.
- J.P. Smith-Pardo, J.C Reyes, L.A Ardila-Bothia, J.N. Villamizar-Gonzalez, and O.A Ardila-Giraldo (2015), "Effect of Live Load on the Seismic Design of Single-Story Storage Structures under Unidirectional Horizontal Ground Motions", Engineering Structures, 93(June): 50-60.
- A.F. Henao-Ramirez, and J.P. Smith-Pardo (2015), "Elastic Stability of Pile-Supported Wharves and Piers", *Engineering Structures*, 97(August): 140-151.
- C. A. Blandon, J.P. Smith-Pardo, and A. R. Ortiz (2015), "Rotational Capacity of shallow footings and its implication on SSI analyses", *Earthquakes and Structures*, 8(3): 591-617.
- K. Kuder, N. Gnanapragasam, and J.P. Smith-Pardo (2015), "Experiential Learning through Structural Retrofit Captsone Projects", *International Journal of Engineering* Education, 31(6B): 1860-1868.

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 N. Gnanapragasam, J.W. Lauer, J.P. Smith-Pardo, M. Marsolek, and N. Canney (2015),
 "International Civil Engineering Capstone Projects- Benefits, Challenges and Lessons Learned", *International Journal of Engineering Education*, 31(6B): 1869-1880.

- O J.P. Smith-Pardo, A. Ortiz, and C.A. Blandon (2014), "Biaxial Capacity of Rigid Footings: Simple Closed-Form Equations and Experimental Results", *Engineering Structures*, 69(15): 149-157.
- S. Pujol, M.D. Nelson, and J.P. Smith-Pardo (2013), "Virtual Velocity: Connecting the Concepts of Kinematics and Virtual Work", *Engineering Structures*, 56(November): 2249-2252.
- O J.P. Smith-Pardo and C.E. Ospina (2013), "Special Considerations for the Seismic Analysis and Design of Piers, Wharves and Container Yards Supported on Prestressed Concrete Piles", ACI Special Publication SP-295: Recent Advances in the Design of Prestressed Concrete Piles in Marine Structures in Seismic Regions.
- J.P. Smith-Pardo (2012), "Design Aids for Simplified Nonlinear Soil-structure Interaction Analyses", Engineering Structures, 43(1): 572-580.
- J.P. Smith-Pardo (2011), "Performance-Based Framework for Soil-Structure Systems using Simplified Rocking Foundation Models", Structural Engineering and Mechanics, 40(6): 763-782.
- S. Pujol, and J.P. Smith-Pardo (2009), "A New Perspective on the Effects of Abrupt Column Removal", *Engineering Structures*, 31(4): 869-874.
- J.P. Smith-Pardo (2008), "Reinforced Concrete Walls with Vulnerable Foundations", Journal of Geotechnical and Geoenvironmental Engineering, 134(2): 257-261.
- J.P. Smith-Pardo and J.D. Aristizabal-Ochoa (2008), "Second-Order Axial Force and Midspan Deflection in a Simple Supported Beam Axially Restrained", *Engineering Structures*, 30(2): 561-569.
- J.P. Smith-Pardo, and A. Bobet (2007), "Behavior of Rigid Footings under Combined Axial Load and Moment", *Journal of Geotechnical and Geoenvironmental Engineering*, 133(10): 1203-1215.
- J.P. Smith-Pardo, J.A. Ramirez, and R.W. Poston (2006), "Distribution of Compressive Stresses in Transversely Post-Tensioned Concrete Bridge Decks", *Journal of Bridge* Engineering, 11(1): 64-70.
- Y. Cataño, J.P. Smith, and J. Naranjo (2001), "Ondas Airy de Gravedad y Teoria de Primer Orden Aplicadas a la Atenuación de Ondas Estacionarias", Avances en Recursos Hidraulicos, Medellin, Colombia.
- J.P. Smith-Pardo and J.D. Aristizabal-Ochoa (1999), "Reversals-Buckling of an Axially Restrained Beam Column", *Journal of Engineering Mechanics*, 5(4): 401-409.

REFEREED CONFERENCE PUBLICATIONS

- J.P. Smith-Pardo (2018), "Stiffness, Strength, and Deformation Capacity of Rocking Foundations", 16th European Conference on Earthquake Engineering, Thessaloniki, Greece, June 18-21.
- J.N Villamizar-Gonzalez, J.P Smith-Pardo, J.C. Reyes, C. Alvarez (2018), "Effect of Moored Vessels on the Nonlinear Dynamic Response of Marginal Wharves", 16th European Conference on Earthquake Engineering, Thessaloniki, Greece, June 18-21.
- J.P. Smith-Pardo, E. Marcillo-Delgado, J.C. Reyes, O.A. Ardila-Giraldo (2017), "Evaluation of ASCE 7-10 Requirements for Estimating Effective Seismic Mass", 16th World Conference on Earthquake Engineering, Santiago-Chile, Jan 9-13. 24-28.
- J.C. Pantoja, J.C. Reyes, J.P. Smith-Pardo (2017), "Selection and Scaling of Earthquake Records for Nonlinear Analysis of Marginal Wharves", 16th World Conference on Earthquake Engineering, Santiago-Chile, Jan 9-13. 24-28.
- E. Marcillo-Delgado, J.C. Reyes, J.P Smith-Pardo, O.A. Ardila-Giraldo (2017), "Estimación de la Masa Sísmica Efectiva para Edificios con Cargas Vivas Cuassi-Permanentes", VIII Congreso Nacional de Ingenieria de Ingeniería Sísmica, Barranquilla-Colombia, May 31-June 2.

- D.E. Zuluaga-Rojas, F.A Galvis-Lopez, J.P Smith-Pardo, B. Caicedo (2017), "Capacidad de Carga Doblemente Excéntrica en Cimentaciones Superficiales", *VIII Congreso Nacional de Ingenieria de Ingeniería Sísmica*, Barranquilla-Colombia, May 31-June 2.
- J.C. Reyes, L. Ardila-Bothia, J.P. Smith-Pardo, J. N. Villamizar-Gonzalez, O. A. Ardila-Giraldo (2015), "Effect of Live Load Objects on the Drift Response of Platform Structures Subjected to Unidirectional Ground Motions", 11th Canadian Conference of Earthquake Engineering, Vancouver-Canada, July 21-24.
- J. N. Villamizar-Gonzalez, J.C. Reyes, L. Ardila-Bothia, O. A. Ardila-Giraldo, and J.P. Smith-Pardo (2015), "Effect of Live Load on the Seismic Design of Single-Story Storage Structures", VII Congreso Nacional de Ingenieria de Ingeniería Sísmica, Bogotá-Colombia, May 27-29.
- J.P. Smith-Pardo, K. Kuder, and N. Gnanapragasam (2015), "Learning Challenges and Opportunities from Seismic Retrofit Capstone Projects", American Society for Engineering Education (ASEE) Annual Conference, Seattle, June 14-17.
- J.P. Smith-Pardo, J.C Reyes, O.A Ardila-Giraldo, L.A Ardila-Bothia, and J.N Villamizar-Gonzales (2014), "Dynamic Effects of Sliding Rigid Blocks on the Seismic Response of Structures", Second European Conference on Earthquake Engineering and Seismology, Istanbul-Turkey, August 25-29.
- J.C. Reyes, J.P. Smith-Pardo, and O.A., and Ardila-Giraldo (2013), "Effect of Live Load on the Seismic Response of Structures", Vienna Congress on Recent Advances in Earthquake Engineering and Structural Dynamics, Vienna, August 28-30.
- O. A. Ardila-Giraldo, J.C. Reyes, and J.P. Smith-Pardo (2013),"Contact Interface Modeling in the Dynamic Response of Rigid Blocks Subject to base Excitation", 4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, Kos Island-Greece, June 12-14.
- J.C. Bardi, J. Sircar, and J.P. Smith-Pardo (2013), "Post-Earthquake Repair and Improvements", San Vicente, Chile, Ports 2013: Success through Diversification, Seattle, August 25-29.
- A. R. Ortiz, C. A. Blandon, J.F. Rave-Arango, N. Osorio, and J.P. Smith-Pardo (2013), "Caracterización del Desempeño de Sistemas Estructura-Fundación" (Characterization of Soil-Structure Systems), VI Congreso Nacional de Ingeniería Sísmica, Bucaramanga-Colombia, May. 29-31.
- J.P. Smith-Pardo, J.C., Bardi, and C.E. Ospina (2012), "Seismic Assessment and Retrofitting of a Container Wharf and Container Yard Following 27 February Chile Earthquake", 15th World Conference on Earthquake Engineering, Lisbon-Portugal, Sept. 24-28.
- C.A. Blandon, J.F. Rave-Arango, A. Ortiz, and J.P. Smith-Pardo (2012), "Seismic Displacement Capacity of Shallow Foundations", 15th World Conference on Earthquake Engineering, Lisbon-Portugal, Sept. 24-28.
- F. Galvis, M. Bahamon, E.E. Muñoz, J.P. Smith-Pardo, and J.A. Rodriguez (2012),
 "Dynamic Characterization of a Seismically Isolated Viaduct Based on Vibration Measurements", 15th World Conference on Earthquake Engineering, Lisbon-Portugal, Sept. 24-28.
- J.P. Smith-Pardo, and C.B. Cornell (2010), "Seismic Analysis and Design of Berth 14
 Extension, Balboa, Panama", Ports 2010: Building on the Past, Respecting the Future,
 American Society of Civil Engineers Ports 2010 Conference, Jacksonville, FL, April 2010.
- J.P. Smith-Pardo, and G.Y. Firat (2008), "Lateral Load Analysis of Waterfront Structures Supported on Plumb Piles", 14th World Conference on Earthquake Engineering, Beijing-China, Oct. 12-17.
- S. Pujol, A. Benavent-Climent, M. Rodriguez, and J.P. Smith-Pardo (2008), "Masonry Shear Walls: An Efficient Alternative for Seismic Strengthening of Low-Rise Reinforced Concrete Buildings", 14th World Conference on Earthquake Engineering, Beijng-China, Oct. 12-17.

J.P. Smith-Pardo, M.A. Sozen, and J.A. Ramirez (2004), "Nonconventional and Simple View of the Soil-Structure Interaction Problem", *EurEnGeo2004*, *First European Regional IAEG Conference 2004*, 4 - 6 May 2004, Liège (Belgium).

- J. Olek, J. Ramirez, R. Frosch, J.P. Smith-Pardo, and T. Nantung (2001), "Challenges in the Development of Performance-Related Specifications for Concrete Bridge Superstructures-Pilot Project in Indiana", *Third International Conference on Concrete* under Severe Conditions: Environment and Loading, Vancouver, Canada, June 2001.
- J.P. Smith-Pardo, J.A. Ramirez (2000), "Performance-Related Specifications (PRS) for Concrete Bridge Superstructures", *International Symposium of Life-Cycle Cost Design of Materials and Structures*, Finland, May.

BOOK CHAPTER

- F. Galvis, M. Bahamon, E.E Muñoz, J.P. Smith-Pardo, and J. A. Rodriguez (2012), "Estudio del Comportamiento Dinamico del Viaducto Portachuelo Basado en Mediciones de Vibraciones Ambientales", Edgar Eduardo Munoz (Editor), Ingeniería de Puentes*, Volumen 3, pp. 249-292, Bogota: Ed. Gente Nueva, ISBN: 978-958-716-566-1
 - *Awarded the "Diodoro Sanchez" medal by the Colombian Society of Engineers as the best local engineering publication in Colombia during 2012.

OTHER PUBLICATIONS

- J.P. Smith-Pardo (2003), "Detailing of Beams and Columns for Earthquake Resistant Design According to Chapter 21 of ACI-318-02 (in Spanish)", *First International Seminar on Structural Stability*, Medellin-Colombia, December 2003.
- J.P. Smith, and J. A. Ramirez (2003), "An Investigation on Transversely Prestressed Concrete Bridge Decks", *Joint Transportation Research Program*, Project No. SPR-2409, File No. 7-4-52, School of Civil Engineering, Purdue University.
- B.Magee, J.P. Smith, L. Samples, and K. Tureyen (1999), "Performance-Related Specifications for Concrete Bridge Superstructures: Joint Transportation Research Program", Project No. SPR-2325, School of Civil Engineering, Purdue University.

PRESENTATIONS AND SHORT COURSES

- "Diseño Preliminar de Muelles Sobre Pilotes", Escuela Superior Politecnica del Litoral (ESPOL), Guayaquil-Ecuador, July 2016; Universidad Nacional de Colombia, June 2015; Universidad Militar Nueva Granada, Bogotá-Colombia, July 2014.
- º "Edificios con Fundaciones Vulnerables", Escuela Superior Politecnica del Litoral (ESPOL), Guayaquil-Ecuador, July 2016; Universidad Militar Nueva Granada, Bogotá-Colombia, July 2014; Pontificia Universidad Javeriana, Cali-Colombia, July 2013, Pontificia Universidad Javeriana, Bogotá-Colombia, July 2012; Universidad Nacional de Colombia, June 2011.
- o "Seismic Design of Wharves", Universidad Nacional de Colombia, July 2011.
- "Development of a Performance-Based Methodology for Soil-Foundation-Structure Systems", Structural Seminar, University of Washington, Seattle, November 2010
- "Analysis and Design of Waterfront Structures," Invited Speaker at the National University of Colombia and University of Antioquia, Medellin-Colombia, November 2007.
- "Buildings with Vulnerable Foundations and Soil-Structure Interaction", National University of Colombia and University of Antioquia, Medellin-Colombia, November 2007
- "Wall-Frame Structures with Vulnerable Foundations", Invited Speaker at the University of Michigan-Ann Arbor, USA, February 2006.
- Transversely Postensioned Concrete Bridge Decks, Young Researcher Symposium, University of Tokyo, Japan, June 2002.

TEACHING

- o "CEEGR 5210 Advanced Reinforced Concrete Design" (F15, F17)
- o "CEEGR 5120 Earthquake Engineering" (W16, W18)
- o "CEEGR 5220 Prestressed Concrete Design" (S16,S18)
- o "MEGR 2100 (formerly 210) Statics" (W12, W13, W14, W15)
- "CEEGR 2210 (formerly 221) Mechanics of Materials I" (F10, S11-12-13-14-15, F14, S15, F17)
- o "CEEGR 2500 (formerly 250) Residential Design" (S11-12-13, F11-12)
- o "CEEGR 4450 (formerly 445) Structural Mechanics" (F11-12-14)
- o "CEEGR 4470 (formerly 447) Reinforced Concrete Design" (W12-13-14-15,16,18)
- Faculty Adviser for Senior Design Teams:
 - CEE 18.4, "Seismic Analysis of the Broadway Garage" (2017-2018)
 - CEE 16.1, "Development of a Post-Earthquake Screening Manual for Three Seattle City Light Buildings" (20015-2016)
 - CEE 15.3, "Seismic Evaluation and Retrofit of the Diablo Powerhouse Building" (2014-15)
 - CE 14.3, "Seismic Evaluation of Canal Substation Control Building" (2013-14)
 - CEE 13.3, "South Substation Control Building Seismic Assessment" (2012-13).
 - CEE 12.3, "Babcock Creek Crossing Design" (2011-12).
 - CEE 11.1, "Design of an Orphanage, Learning and Community Center in Ethiopia" (2010-11)

CEE 11.3 "Poder Joven Foundation Community Center" (2010-11)

CONSULTING EXPERIENCE

Design and Retrofitting:

- Design of the bulkhead and seismic design of the 700-meter wharf for the ICAVE container terminal in Veracruz, Mexico.
- Q/C for the seismic design of the pile-supported wharf and tresle of the Sociedad Puerto Industrial de Aguadulce (SPIA), Buenaventura, Colombia.
- Wharf Design for the Terminal de Contenedores de Quetzal, Guatemala
- o Q/C for Terminal de Contenedores Lazaro Cardenas, Mexico.
- Design of Trailer Bridge Ramp and Turndeck Structure in San Juan, Puerto Rico.
- Design of Berth 14 extension- Panama Ports Company Container Terminal in Balboa, Panamá.
- o Design of MGM Automatic People Mover (APM) City Center in Las Vegas, NV, USA.
- o Seismic Assessment of the WSDOT Administration Building in Olympia, WA.
- o Design of Berths 10,11, 12 Expansion-Terminal Especializada de Manzanillo, Mexico.
- Design of San Vicente Terminal International Berth 2/3 Earthquake Repair, San Vicente, Chile.
- Cameron LNG Ship unloading Platform and Berthing System, Calcasieu, LA, USA.
- o Texas City International Terminal, Texas, USA.
- Cai-Mép Contanier Terminal, Ba Ria-Vung Tao Province, Vietnam.
- o Terminal de Contenedores de Quetzal, Puerto Quetzal, Guatemala.
- o Terminal de Contenedores Lazaro Cardenas, Mexico.
- o San Vicente Terminal International Berth Expansion, Bahía de San Vicente, Chile.
- o Global Terminal Berth Expansion in Jersey City, NJ, USA.
- Telfer Island Pier for Vessel Servicing, Colón, Panamá.
- Tuxpan Container Terminal, Veracruz, Mexico.

Construction Support:

- o Construction Support for SSAMexico International Cruise Terminal in Cozumel, Mexico
- o Construction Support for SSAMexico Ferry Terminal in Cozumel, Mexico
- Construction Support for Santa Marta Terminal International (SMITCO), Santa Marta, Colombia.
- Construction Support for Trailer Bridge Ramp and Turndeck Structure, San Juan, Puerto Rico.

PROFESSIONAL AFFILIATIONS

- o ASCE- American Society of Civil Engineers
- SEAW- Structural Engineers Association of Washington
- ASCE/COPRI Standard 61 "Seismic Detailing Criteria for Piers and Wharves" (voting member)
- Precast/Prestressed Concrete Institute (PCI)

SERVICE

- Contributed to the development of MS in Structural Engineering Program at Seattle University: 2013-2015.
- Faculty library representative for the department of Civil and Environmental Engineering of Seattle University 2012-present.
- Member of the Academic Grievance Board for the College of Science and Engineering, 2013-present
- Member of the NSF Predoctoral Award Review Committee for the College of Science and Engineering, 2013 & 2014.
- Proposal Review Panelist for the National Science Foundation, spring 2014.
- Faculty advisor for the annual ASCE/AISC Steel Bridge Competition 2010-present.
- Organizer of the annual Puget Sound Engineering Council (PSEC) Mentor Nights of Nov. 2/2010, Oct. 25/2011, and Oct. 25/2012, Oct. 29/2013, Oct. 21/2014, Nov. 29/2017.
- Volunteer to conduct the structural assessment and recommendation report for retrofitting the house of a disable person in Vashon Island, fall 2010, summer 2013, summer 2014.
- Provided construction support for the SU senior design project "Poder Joven Foundation Community Center" during spring 2011.
- Member of the board of directors and co-founder of Poder Joven Foundation (1996present). Nonprofit Organization Serving Street Children in Medellin-Colombia.
- Contributed to the preparation and translation multiple grant proposals for Poder Joven Foundation social programs (2002-present).
- Coordinated fundraising events Poder Joven Foundation, Bellevue Sept. 17/2011 and Sept. 13/2014, Federal Way and Kirkland Dec. 2013.
- Voting Committee member for the ASCE Standard 61-14 Seismic Design of Piers and Wharves, Oct. 2010-present.
- Reviewer for Earthquakes and Structures
- o Reviewer for Measurements (Journal of International Measurement Confederation)
- o Reviewer for the EERI Spectra Journal.
- o Reviewer for the ASCE International Journal of Geomechanics.
- o Reviewer for the ASCE Journal of Bridge Engineering
- o Reviewer for the ACI Structural Journal.
- Reviewer for Engineering Structures Journal.

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- Adviser for MSc research thesis: "Influencia del Agua y las Embarcaciones en el Comportamiento Sismico de Muelles", Department of Civil Engineering, Universidad de los Andes, Bogotá-Colombia (2017).
- Co-director for MSc research thesis: "Selección y Modificación de Registros Sísmicos para Análisis No-lineal de Muelles", Department of Civil Engineering, Universidad de los Andes, Bogotá-Colombia (2015).
- Co-director for MSc research thesis: "Selección y Modificación de Registros Sísmicos para Análisis No-lineal de Muelles", Department of Civil Engineering, Universidad de los Andes, Bogotá-Colombia (2015).
- Co-director for MSc research thesis: "Efecto de la Carga Viva en el Diseño Sísmico de Estructuras de Almacenamiento de un Piso", Department of Civil Engineering, Universidad de los Andes, Bogotá-Colombia (2014).
- Co-director for undergraduate research thesis: "Modelación del Deslizamiento de Bloques Rígidos Sobre Estructuras Sometidas a Excitación en la Base", Department of Civil Engineering, Universidad de los Andes, Bogotá-Colombia (2013).
- Adviser for undergraduate research thesis: "Determinación de la Capacidad de Rotación de Fundaciones Superficiales bajo Carga Axial Constante y Momento Cíclico", Department of Civil Engineering, Escuela de Ingeniería de Antioquia (EIA), Medellín-Colombia (2012).
- Co-director for undergraduate research thesis: "Estudio del Comportamiento Dinámico del Viaducto Portachuelo Basándose en Mediciones de Vibraciones Ambientales", Department of Civil Engineering, Pontificia Universidad Javeriana, Bogotá-Colombia (2011).