

GUILLERMO CLAURE, Ph.D.
CIVIL ENGINEER

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Citizenship: United States of America Citizen

HIGHER EDUCATION

Doctor of Philosophy - Civil Engineering, University of Miami (2015)

- *Fiber Reinforced Polymer Composite Rebars for Concrete Reinforcement*

Master of Science Program - Foundation & Structural Engineering, University of Central Florida (1996)

- *Wind Loading, Dynamics of Structures, Matrix Structural Analysis, Adv. Reinforced Concrete*
- *Bridge Engineering, Geotechnical & Foundation Engineering, and Pavement Design*

Bachelor of Science - Civil and Environmental Engineering, Florida International University (1994)

- *Cum Laude Academic Distinction*
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PROFESSIONAL LICENSING

Professional Registration Civil Engineer registered and licensed to practice engineering in member countries of MERCOSUR and CAN International Agreements.
Registry No. 12452, Sociedad de Ingenieros de Bolivia (March 27, 2003)

PROFESSIONAL AND ACADEMIC AFFILIATIONS

Chapter Director FSEA, Florida Structural Engineers Association - South Florida Chapter
Member NSPE, National Society of Professional Engineers
Member FES, Florida Engineering Society
Recognized Member ACI, American Concrete Institute
Committee Member ASTM International D-30, American Society of Testing and Materials
Associate Member ASCE, American Society of Civil Engineers
Associate Member SEI, Structural Engineering Institute
Advisor Tau Beta Pi Honors Society, University of Miami - Florida Beta Chapter
Fellow Dwight Eisenhower Fellowship - Federal Highway Administration
Order Member Order Of The Engineer, Florida International University - Link 140

SKILLS

- Language Full Proficiency: English and Spanish
 - Data Acquisition & Analysis: National Instruments, LabVIEW, MTS Systems, TestWorks, INSTRON, JEOL Scanning Electron Microscopy, TA Instruments DMA, PerkinElmer DSC
 - Structural Analysis and Drafting: SAP, LARSA, Mathcad, AutoCAD, Revit
 - Project and Road Management: MS Project, Primavera, HDM-4, RED
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EXPERIENCE AND EMPLOYMENT

<u>Position / Description / Project</u>	<u>Institution / Location / Supervisor</u>	<u>Year</u>
Senior Research Associate / Quality Manager / Research and Testing	Structures and Materials Laboratory / University of Miami, Coral Gables, FL / Dr. Francisco De Caso	2019
Post-Doctoral Associate & Lecturer / Research and Testing of FRP Reinforcement for Concrete Members	Department of Civil, Arch. & Environ. Eng. / Structures and Materials Laboratory / University of Miami, Coral Gables, FL / Dr. Antonio Nanni	2016 to 2018
Research Assistant / Research on FRP Internal Reinforcement for Concrete Members	Department of Civil, Arch. & Environ. Eng. / Structures and Materials Laboratory / University of Miami, Coral Gables, FL / Dr. Antonio Nanni	2013 to 2015
Project Manager / Consulting Engineer / Structural Design	G & A Engineers / Miami, FL / Alberto Romanach, P.E.	2010 to 2013
Project Manager / Consulting Engineer / Structural Design	Pacheco Arquitectura / La Paz, Bolivia / Arq. Fabio Pacheco	2000 to 2010
Project Manager / Residential Construction	Claire & Cia., La Paz, Bolivia	1996 to 2000
Research Assistant / Buildings Subjected to Wind Loads	University of Central Florida / Orlando, FL / Dr. Onye Onyemelukwe	1995 to 1996
Research Assistant / Traffic Analysis	Florida International University / Miami, FL / Dr. Sylvan Jolibois	1994

TEACHING AND MENTORING

<u>Description</u>	<u>School / Department / Supervisor</u>	<u>Term/Year</u>
Instructor/Trainer in Composite Materials and Structural Testing / SML personnel and CAE students	University of Miami (UM) / Structures and Materials Laboratory (SML) / Dr. Francisco De Caso y Basalo	2016 to Present
Thesis Committee Member / Doctor of Philosophy / Student: Carlos Morales	UM / Department of Civil, Arch. & Environ. Engineering (CAE)	2018 to Present
Lecturer / CAE 320 Design of Concrete Structures / Academic Term	UM / CAE	Summer 2018 Summer 2017 Fall 2016
Thesis Committee Member / Master of Science / Student: Paolo Rocchetti	UM / CAE	2016
Mentor / Master of Science / Student: Valentino Rinaldi	UM / CAE	2015

CERTIFICATES

<u>Description</u>	<u>Location / Institution</u>	<u>Term/Year</u>
<i>Laws and Rules/Ethics for Professional Engineers</i>	Florida Structural Engineers Association, Miami, FL	Fall 2018
<i>NIMS, National Incident Management System</i>	University of Miami, Coral Gables, FL	Fall 2018
<i>ACI 318-14 Building Code Requirements - Reorganized for Design</i>	American Concrete Institute	2018
<i>Masonry Educator Certificate</i>	The Masonry Society, University of South Florida, Tampa, FL	Spring 2018
<i>General Contractor License Preparation, Taxation, OSHA</i>	Miami Dade College, Miami, FL	Spring & Summer 2013

<i>Negotiation and Conflict Management Models: Harvard School, ACLAND, Sara Cobb, Transformative, Mega Process</i>	Negotiation & Conflict Management Center, La Paz, Bolivia	Spring 2005
<i>Soil Mechanics of Partially Saturated Soils: Shear Resistance, Slope Stability, Suction and Flow Concepts</i>	Universidad Mayor de San Andrés – Ingeniería Civil, La Paz, Bolivia	Spring 2004
<i>HDM-4 & RED / Road Evaluation and Administration: HDM-4 and RED Systems</i>	JICA – Japan International Cooperation Agency, La Paz, Bolivia	Fall 2004

TRAINING

<u>Description</u>	<u>Location / Institution</u>	<u>Term/Year</u>
<i>Scanning Electron Microscopy for Engineers</i>	Dr. Edward A. Dauer, Biomedical Engineering, University of Miami, Coral Gables, FL	Spring/2019
<i>Internal Auditor Course for Conformity Assessment Bodies (CABs)</i>	International Accreditation Service, Inc. (IEC), Chicago II	03/2019
<i>Training - Understanding ISO-IEC 17025-2017</i>	International Accreditation Service, Inc. (IEC), Chicago II	03/2019
<i>Limestone Calcined Clay Cement, LC³, “Supplementary Cementitious Materials”</i>	<i>Doctoral School - EPFL</i> University of Miami, Coral Gables, FL	02/2019
<i>All Hazards Response; FERPA: Family Educational Rights and Privacy Act</i>	University of Miami, Coral Gables, FL	12/2018
<i>FDOT Standard Specifications 932 & 933; ACI440, AC454</i>	SML, University of Miami, Coral Gables, FL	2013 - 2018
<i>ANSI/ISO/IEC Standard 17025:2005</i>	SML, University of Miami, Coral Gables, FL	2018
<i>ASTM D9757 Standard Specifications for GFRP bars for Reinforced Concrete</i>	SML, University of Miami, Coral Gables, FL	2017
<i>Conflict of Interest, Ethics, and Responsible Conduct of Research</i>	University of Miami, Coral Gables, FL	Fall/2013
<i>National Instruments: Data Acquisition & Signal Conditioning</i>	SML, University of Miami, Coral Gables, FL	Fall/2013

PUBLICATIONS

1. Gooranorimi, O., **Claire, G.**, Suaris, W., and Nanni, A. (2018). “Bond-slip effect in flexural behavior of GFRP RC slabs.” *Composite Structures* 193 (2018) 80-86, March, 2018.
2. Gooranorimi, O., **Claire, G.**, De Caso y Basalo, F. J., Suaris, W., and Nanni, A. (2018). “Post-fire behavior of GFRP bars and GFRP-RC slabs.” *Journal of Materials in Civil Engineering* 30(3) DOI: 10.1061/(ASCE), March, 2018.
3. **Claire, G.**, Smith, D., De Caso y Basalo, F. J., and Nanni, A. (2017). “Pre-Fabricated FRP Reinforcement Shapes For Accelerated Bridge Construction.” *2017 National Accelerated Bridge Construction Conference*, Miami, FL, USA, December, 2017.
4. **Claire, G.**, Rocchetti, P., Siddiqui, M., Nolan, S., and Nanni, A. (2017). “GFRP Innovative shapes - Halls River Bridge Replacement Project.” *CAMX–The Composites and Advanced Materials Expo Conference Proceedings*, Orlando, FL, USA, December, 2017.
5. Khatibmasjedi, M., **Claire, G.**, and Nanni, A. (2017). “Durability of GFRP Reinforcement in Seawater Concrete – Part I.” *CAMX–The Composites and Advanced Materials Expo Conference Proceedings*, Orlando, FL, USA, December, 2017.

6. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2017). "Post Fire Evaluation of FRP Reinforcement in RC Slabs." *The 13th International Symposium on Fiber-Reinforced Polymer Reinforcement for Concrete Structures, FRPRCS-13, ACI Fall Convention, Anaheim, CA, USA, October, 2017.*
 7. **Claire, G.**, Rocchetti, P., De Caso y Basalo, F. J., and Nanni, A. (2017). "Implementation of Closed GFRP Stirrups in FDOT FRP-RC Design of Traffic Barriers." *The 13th International Symposium on Fiber-Reinforced Polymer Reinforcement for Concrete Structures, FRPRCS-13, ACI Fall Convention, Anaheim, CA, USA, October, 2017.*
 8. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2017). "Construction and Monitoring of the Innovation Bridge." *The International Bridge Conference - IBC, National Harbor, MD, USA, June, 2017.*
 9. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2017). "Structural Performance of FRP-RC Slabs After Two-Hour Fire Exposure." *2nd International Fire Safety Symposium (IFireSS 2017), Naples, Italy, June, 2017.*
 10. Gooranorimi, O., **Claire, G.**, De Caso y Basalo, F. J., Suaris, W., and Nanni, A. (2016). "Residual Mechanical Properties of Fire Exposed GFRP Reinforcement in Concrete Elements." *Sustainable Construction Materials & Technologies Conference (SCMT4), Las Vegas, NV, USA, August, 2016.*
 11. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2015). "Evaluation of Fire-Exposed GFRP-RC Slabs." *The 12th International Symposium on Fiber Reinforced Polymers for Reinforced Concrete Structures (FRPRCS-12) & The 5th Asia-Pacific Conference on Fiber Reinforced Polymers in Structures (APFIS-2015), Nanjing, China, December, 2015.*
 12. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2015). "GFRP Hollow-core Rebars for Concrete Beams." *The 12th International Symposium on Fiber Reinforced Polymers for Reinforced Concrete Structures (FRPRCS-12) & The 5th Asia-Pacific Conference on Fiber Reinforced Polymers in Structures (APFIS-2015), Nanjing, China, December, 2015.*
 13. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2015). "Post-Fire Residual Strength of GFRP Reinforced Concrete Slabs." *7th Biennial Conference on Advanced Composites in Construction, ACIC 2015, Cambridge, UK, September 2015.*
 14. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2015). "GFRP Hollow-core Bars as Internal Reinforcement for Concrete Slabs." *7th Biennial Conference on Advanced Composites in Construction, ACIC 2015, Cambridge, UK, September 2015.*
 15. **Claire, G.**, De Caso y Basalo, F. J., and Nanni, A. (2014). "GFRP Hollow-core Bars as Reinforcement of Concrete Beams." *CAMX-The Composites and Advanced Materials Expo Conference Proceedings, Orlando, FL, USA, October 2014.*
 16. **Claire, G.**, and Onyemelukwe, O. (1996). "Dynamic and Quasi-Static Design of High-Rise Buildings Subjected to Wind Loads." *American Society of Civil Engineering A.S.C.E. Natural Disaster Reduction Conference Proceedings, Washington DC, USA, December 1996.*
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