430 Technology Parkway NW
Peachtree Corners, GA 30092

PATRICIA S. CARCAMO, Ph.D.
SENIOR STAFF CONSULTANT

pscarcamo@engsys.com

Dr. Patricia Carcamo is a Senior Staff Consultant at ESi's Structural and Civil Engineering Practice in the Atlanta office. She is a Geotechnical and Structural Engineer with over eight years of combined experience in design, analysis, and investigation, with a strong focus on earth retaining structures, seismic analysis, and both geotechnical and structural design. Dr. Carcamo conducts root-cause failure analysis, including site investigation of existing structures and soil/structure interaction analysis of structures such as retaining walls and foundations, Dr. Carcamo also performs detailed reviews of construction documents, construction materials, and construction practices.

Prior to joining ESi, Dr. Carcamo worked in Chile as a Structural Engineer, performing structural design and conducting bridge analysis-related research projects. Her work included monitoring seismic stations, conducting non-invasive surveys, and collecting data on bridge elements. Dr. Carcamo led both construction and design projects, coordinating multiple disciplines, managing schedules, budgets, and overseeing material testing to ensure successful outcomes for public and private sector projects. She also has experience in the geoenvironmental field, focusing on remediation projects, conducting geotechnical analysis, developing technical documents, and ensuring regulatory compliance.

Dr. Carcamo has experience in the retaining wall industry, where she performed geo-structural analysis and design for transportation and commercial projects across several states. Her academic background includes a Ph.D in Geotechnical Engineering from Auburn University, where she researched seismic accelerometers and applied geophysical methods to characterize shear wave velocity at sites in Alabama. Dr. Carcamo is fluent in both English and Spanish and is passionate about delivering high-quality engineering solutions while adhering to safety standards.

Areas of Specialization

- Site Characterization
- Geophysical Testing and Analysis
- Geotechnical Engineering
- Design Analysis
- Structural Engineering
- Earth Retention Systems
- Seismic Analysis

Education

Ph.D., Geotechnical Engineering, Civil and Environmental Engineering, Auburn University, Alabama.
M.S., Structural Engineering, Civil Engineering, Austral University, Chile.
B.S., Civil Engineering, Austral University, Chile.

Professional Affiliations/Honors

- **American Society of Civil Engineers (ASCE), Member**
- **100+ Woman Strong, Member**
- **Auburn Geotechnical Society (AGS), Founder Member**

Positions Held

Engineering Systems Inc. (Esi), Peachtree Corners, Georgia

Senior Staff Consultant, 2024 – Present

Earth Wall Products, Smyrna, Georgia

Geotechnical and Structural Engineer, 2023 – 2024

Geosyntec Consultants, Kennesaw, Georgia

Senior Staff Professional, 2022 – 2023

Hotel Villa del Rio, Valdivia, Chile

Project Engineer, 2017 – 2018

Technical Education Center, Valdivia, Chile

Project Manager, 2017 – 2018

Mariquina Municipality, San Jose, Chile

Project Engineer, 2016 – 2016

Industrial Engineering Building, Valdivia, Chile

Project Engineer, 2016 – 2017

Teaching and Research

Auburn University

- **Graduate Research Assistant, 2019 – 2022**
  - Assessing Site Class Using Surface-Based Shear Wave Velocity Measurements, ALDOT. Dissertation Project.
  - Pharmacy Research Building. Vibration Testing for Laboratory Equipment.
  - Landslide at Conecuh I-65 MP 87.4, ALDOT. Geophysical Investigation.
  - AL-51 Bridge, ALDOT. Geophysical Investigation.
  - SR-219 Landslide, ALDOT. Geophysical Investigation.
- **Graduate Teaching Assistant**, 2019 – 2022
  CIVL-3310, Geotechnical Engineering I

Austral University

- **Research Projects, 2016 - 2018**

- Chacao Bridge Seismic Analysis. Monitoring and Reporting of Seismic Activity of the Region.
- Cau-Cau Bridge Analysis. Non-invasive and Invasive Testing of Structural Elements.
- Paper and Pulp Building. Expansion Feasibility Analysis

Publications & Presentations

"Where to Locate the Elastic Half-Space in Site Response Analysis. A Case Study Using Site Profiles from Charleston, South Carolina, USA." Cabas, A.; **Carcamo, P**.; Rodriguez-Marek, A.; Godfrey, B.; Olgun, G. Second European Conference on Earthquake Engineering and Seismology, Istanbul. 2014.

"Development of a slope failure database for Alabama highways." Knights, M. J., Montgomery, J., **Carcamo, P. S**. Bulletin of Engineering Geology and the Environment, 79(1), 423-438. 2020.