

# Jorge Braulio Cossio Duran, Ph.D., A.M.ASCE

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Self-sponsored work authorization through [TN Visa](#) (U.S.-Mexico-Canada Agreement - USMCA)

## Overview:

- 7+ years of experience on Pavement Management Systems for Airports, Highways, and Railways, and Highway & Pavement Design
- 2+ years of experience teaching Civil Engineering undergraduates and graduates
- Comfortable communicating complex data to lay and technical audiences in written, verbal, and visual formats
- Extensive public speaking experience with superior ability to develop compelling and coherent presentations

## Education:

- University of Sao Paulo – Postdoctoral Researcher on Airport Pavement Roughness Brazil, 2019-present
- University of Sao Paulo – Ph.D. in Transportation Engineering (Infrastructure) Brazil, 2015 to 2019
- Beihang University, graduate student, International Summer School in Aeronautics & Astronautics China, July 2018
- University of Sao Paulo – MSc. in Transportation Engineering (Infrastructure) Brazil, 2013 to 2015
- National Institute of Technology of Mexico – B.S. in Civil Engineering Mexico, 2007 to 2013

## Experience:

- **Institute of Basic Sciences and Engineering, Autonomous University of Hidalgo** Mexico, 2017-2020  
Adjunct Professor – Undergraduate Civil Engineering Program  
Taught +150 students on Construction Materials, Strategic Planning, Traffic Engineering, Urban Systems, and Highway Design
- **Technological Institute of Construction** Mexico, June-July 2019  
Adjunct Professor – Graduate Transportation Infrastructure Engineering Program  
Implemented a condensed course of geotechnics for civil engineers involved in public works
- **Mexican Chamber of the Construction Industry** Mexico, Aug. 2018  
Adjunct Professor – National Water Commission (CONAGUA)  
Carried out a 4-days course on Integrated Water Resources Management for operational staff with different level of knowledge
- **Sao Carlos School of Engineering, University of Sao Paulo** Brazil, Jan.-Dec. 2018  
Academic Advisor – Specialization course on Transportation Infrastructure  
Provide academic and personal support to 35 Civil Engineers hired by the Ministry of Public Works and Communications of Paraguay
- **Sao Carlos School of Engineering, University of Sao Paulo** Brazil, 2014-2018  
Lecturer – Undergraduate Civil Engineering Program (two years)  
Updated teaching material and assisted a faculty member to teach and advise undergraduate students through the application of effective learning strategies that improved my teaching skills
- **Independent Consultancy on railway, highway, and airport engineering projects** Brazil 2014-2015  
1. Develop a manual on functional and structural distresses in the railway permanent way for undergraduate and graduate education programs in Brazil. 2. Perform analysis of economic viability of M&R strategies of flexible pavements with HDM-4 resulting in 20-year cost-effective maintenance plan. 3. Implement of a functional and structural pavement distress survey and computing of the PCI index for a State Airport resulting in the establishment of an Airport Pavement Management System and a 20-year maintenance plan

## Certifications:

- Looking for credentials evaluation through NCEES in order to be able to get EIT certification Present
- Basic Pre-hospital Trauma Life Support and Rescue (Brazilian Red Cross) Brazil, Nov. 2012
- Damage Assessment and Needs Analysis (USAID) Mexico, July 2010
- Basic Emergency Medical Technician Mexico, Feb. 2007

## Skills and Interests:

- Exceptional time-management, teamwork, thinking, and problem-solver skills
- Proficient in MS Office and Project; AutoCAD Civil 3D; Open Roads/MicroStation, IBM-SPSS, and FAA software
- Familiarity with FAA, FHWA, AASHTO, ASTM, ACI, and AI standards, specifications and advisory circulars
- Languages: English (intermediate), Spanish (native), Portuguese (fluent)
- Interests in Pavement Maintenance & Rehabilitation; Pavement Management; Pavement-Vehicle Interaction

## Volunteering:

- Mexican Red Cross Volunteer Mexico, 2000-2012
- Guidance and Support Staff Volunteer: 2014 FIFA World Cup Brazil, June to July 2014
- Emergency Medical Technician Volunteer: Under 17 Football World Cup, FIFA Mexico, June to July 2011

**Publications and Conferences:** 7 first author; 2 co-author; 7 conference presentations