



JORGE ARTURO CASTRO ORTIZ

Professional in Civil & Pavements Engineering

About me: Considered as a high performance professional, analytical, expert in engineering and infrastructure. A leader, with creative and critical thinking. With great experience and knowledge in Civil Engineer with main emphasis in Pavement Engineering. Experience with airport pavements and infrastructure.

Excellent understanding of pavement structural design, laboratory mix design and performance testing of hot-mix asphalt (HMA) and cold in place recycling (CIR), pavement network management, construction and maintenance of pavement structures.

Comprehensive knowledge of mechanistic-empirical design, analysis and back calculation using a variety of software, as well as math and physics skills. Capability of keeping up with projects from conceptualizing phase to completion, including design, incorporation of customer needs, and technical support.

EDUCATION

University of Nevada, Reno

2017-2016

MASTER OF SCIENCE IN CIVIL AND ENVIRONMENTAL ENGINEERING

THESIS: "COLD IN-PLACE RECYCLING MIX DESIGN, IN-PLACE DENSITY, AND LONG-TERM PERFORMANCE IN NEVADA" THESIS ADVISOR: PETER E. SEBAALY, PH.D

University of Costa Rica

2015-2009

BACHELOR IN CIVIL ENGINEERING

FINAL GRATUATION PROJECT: "STUDY OF PERMANENT DEFORMATION PHENOMENON IN HOT MIX ASPHALT WITH EMPIRICAL FLOW TESTS AND FINITE ELEMENT MODELING" FINAL GRATUATION PROJECT ADVISOR: LUIS GUILLERMO LORIA SALAZAR, PH.D.

EXPERIENCE

ALACPA
2018-Present

BOARD MEMBER AS CENTRAL AMERICAN AND CARIBBEAN COORDINATOR

Aeris Holding Costa Rica S.A.

2018-Present

AIR-SIDE INFRASTRUCTURE ANALYST

Project planning and development of the expansion on the air-side infrastructure projects such as runways, taxiways, aprons and parking lots | In charge of the Airport Pavement Management System (PMS) | runway friction testing | pavement condition index (PCI) | Lead and coordinate periodic managements meetings with the government to execute airside investments according to the Aeris Master Plan.

Western Regional SUPERPAVE Center
2016-2017

GRADUATE RESEARCH ASSISTANT

WESTERN REGIONAL SUPERPAVE CENTER

Superpave Mix Design of Hot Mix Asphalt (HMA) and Cold In-place Recycling (CIR) | Superpave asphalt binder and emulsified asphalt testing | Conducted performance testing on HMA and CIR | Developed research project on life cycle cost analysis and long-term performance of CIR pavements in Nevada

ACCOMPLISHMENTS:

Development of a methodology to obtain CIR in-place density, right after compaction. Performed laboratory testing for obtaining the AASHTO re:source accreditation (AMRL) for the Western Regional Superpave Center (WRSC) laboratory.

SICATSA
2015-2016

PROJECT AND CONSTRUCTION ENGINEER

Developed projects budgeting and material estimates | Construction projects inspection, including apartment building, storage warehouse, and houses | Verified compliance in blueprints specifications

ACCOMPLISHMENTS:

Construction and inspection project management implementation by using Microsoft Project®, generating improved project control to the company. 3D modeling implementation for each project using Revit®.

PIRTRA - LANAMME-UCR
2013-2015

RESEARCH ASSISTANT

Hot mix asphalt (HMA) laboratory testing including Marshall mix design, triaxial testing on HMA specimens, dynamic modulus, flow number and susceptibility to permanent deformation using APA | Conducted finite element modeling using ABAQUS 6.13® | Participated on a research to generate predictive models of stability, flow and permanent deformation of asphalt mix

ACCOMPLISHMENTS:

Finite element modeling of asphalt mixtures (ABAQUS 6.13®), using laboratory testing calibration. Development of predictive models for permanent deformation of asphalt mixtures.

CONTACT

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SKILLS

- Leader & Teamwork
- Assertive Communication
- Problem solving
- Perseverance and motivation
- Confidence
- Conflict Resolution

COMPETENCIES

- Civil Engineering
- Airport pavements and infrastructure
- Pavement preservation: maintenance, recycling and rehabilitation
- Paving materials testing, characterization and design
- Mechanistic and mechanistic-empirical analysis and design of pavement structures
- Pavement network management

LANGUAGES

- Spanish (Native)
- English (95% Fluency)

INTERESTS

