

Antonio Joaquín García Suárez

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Citizenship: Spanish

PROFILE

Mechanical Engineer. I worked as structural engineer for two years and five months. Currently I am a graduate student at GALCIT (Graduate Aerospace Laboratories of the California Institute of Technology). My genuine fields of interest are solid and structural mechanics, with a particular focus on the design and F.E.M. analysis of structural and mechanical systems and dynamics.

EDUCATION

California Institute of Technology, Pasadena, CA, USA Jul 2016-Present

PhD Candidate in Aerospace Engineering.

Research Topics: Fluid-Structure-Soil Dynamic Interaction in Water Reservoirs subjected to intense Seismic Loading.

California Institute of Technology, Pasadena, CA, USA Sep 2015-Jun 2016

Master's Degree in Space Engineering.

Relevant Courses: Fluid Mechanics, Solid Mechanics, Aerospace Engineering, Mechanics of Composite Materials.

Technical School of Engineers, University of Seville, Seville, Spain Sep 2007-Feb 2013

Industrial Engineering (5-year program). Specialization Field: Construction Mechanics.

Relevant Courses: Classical Mechanics, Strength of Materials, Vibrations, Structural Analysis, Typology of Structures.

PROFESSIONAL

Next Force Engineering SL, Seville, Spain Mar 2013-Jul 2015

EXPERIENCE

Structural Engineer

Conducted design and F.E.M. analysis (including dynamic and non-linear geometric and material analysis) of innovative structures for renewable energy generation (heliostats and parabolic trough) along with theoretical development of simplified models and programming new tools.

Relevant projects:

- Dynamic Analysis of Parabolic Trough Collector subjected to CFD wind loads
- A Method of obtaining Quasi-Static Structural Equivalent Loads from Dynamic CFD Wind Load Data

AWARDS

Talentia Fellowship January 2015

Scholarship granted by the Ministry of Economy, Innovation, Science and Employment of the regional government of Andalusia (Spain). The award covers full tuition and living expenses for studying the Master's Degree in Space Engineering at Caltech.

COMPUTER SKILLS

Mathematical Programming: Matlab, Mathcad, Mathematica.

FEM Analysis: Abaqus CAE (*intermediate*), Dlubal RFEM (*advanced*), MIDAS CIVIL (*beginner*).

LANGUAGES

Spanish (*native*), English (*full professional proficiency*).