

# Noel Jacob Ureña Sandí



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Birthday: 13/12/1984 in San José, Costa Rica

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Scholar: <https://scholar.google.de/citations?hl=es&user=Y8rcZmgAAAAJ>

## Profile

- Master Thesis in material characterization of Gyroid and Voronoi Porous-3D-Printed Ti-6Al-4V materials
- Experienced professional in mechanical design and manufacturing engineering at a multinational firm.
- Experience as Solid Mechanics lecturer and Research Assistant.
- Experience in Six Sigma-Lean Manufacturing environment
- Experienced English-Spanish interpreter.

## WORK EXPERIENCE

07/2016 – 07/2019, 12/2022-on

### Lecturer and Research Assistant at Instituto Tecnológico de Costa Rica

- Technical Drawing I and II and Resistance of Materials
- research and publications in the fields: of Magnus Wind Turbines, Renewable Energy, and Vector Mechanics
- student evaluation average: 9,2/10
- member of the Wind Energy Research Lab
- strong interpersonal and oral communication skills developed through lecturing and consultation hours with students

10/2014 – 01/2017

### Manufacturing Engineer at Vitec Production Solutions

- designed and supervised the construction of a machine to automate a process, with great success and 90% human labor saving

- designed many assembling, pad printing, laser engraving, and machining Poka yoke fixtures and tools
- designed some kaizen layout and workstation improvements
- handled Engineering Changes Implementation and New Product Introduction (Scrum methodology)
- solved assembling-related problems of tripods, fluid heads, and accessories for image recording in a Six Sigma/Lean Manufacturing environment
- found root causes for assembly and quality problems
- designed experiments with statistical DOE and Minitab,
- evaluated and managed Projects

05/2012 – 10/2014

**Mechanical Design Engineer**  
at **Instituto Costarricense de Electricidad**

- designed hydraulic-actuated, collapsible form to cast a 7.5-meter diameter by 300-meter-long tunnel at the Reventazón Hydroelectric Project
- designed hydraulic-actuated drum cover for Liebherr FM480 Mixer Truck
- designed 24-meter height exhaust stack for Moín Thermoelectric Plant, among many other projects.
- Primary tasks included engineering design, 3D CAD modeling, and 2D engineering drawings (Autodesk Inventor) of machines and structures

05/2007 – 04/2012

**All Call Interpreter**  
at **Language Line Services**

- during my college studies, I worked full-time as a professional over-the-phone interpreter. The interpretation was primarily made for calls in the USA.
- selected and trained to receive all types of calls: clinical medical calls, 911, insurance field calls, financial and legal related calls
- consistently maintained a rating of "outstanding."
- I received several commendation certificates from satisfied customers and even received a quarterly performance award

EDUCATION

10/2019 – 11/22

**M. Sc. Computer Aided Conception and Production in Mechanical Engineering**

RWTH Aachen University (Aachen, Germany)

- 2,4 GPA. (in the German grading system, where is 1,0 - 1,5 = very good / 1,6 - 2,5 = good)

02/2009 – 08/2011

**Licenciatura (Licenciate) Materials Science Engineering**

Instituto Tecnológico de Costa Rica (Cartago, Costa Rica)

- Licentiate Thesis: "Heat Treated Aluminium Bronze Alloys Characterization" Finished with excellence (90/100)

02/2003 – 05/2008

**Bachelor of Arts in Materials Science Engineering (BA)**

Instituto Tecnológico de Costa Rica (Cartago, Costa Rica)

- GPA 82,15/100

09/2015 – 03/2019

**Master of Business Administration - MBA with a mention in Project Management (MBA)**

- Universidad Estatal a Distancia de Costa Rica (San José, Costa Rica)
- GPA 8,42/10

EXPERIENCE ABROAD

**Work (Internship) and Travel Programme** (Bangor, Maine, USA)

11/2006 – 04/2007

**DAAD Sponsored German Course** (Cologne, Germany)

08/2019 – 09/2019

**MSc. Studies** (Aachen, Germany)

10/2019 – 11/2022

SOCIAL ENDEAVOURS

02/2017 – 01/2019

**Instructor Scientific High School** (Cartago, Costa Rica)

- As a proud graduate of the Scientific High School of Costa Rica, I gave back to my country a small amount of all I have received
- Teaching Technical Drawings to 10<sup>th</sup>-grade students.

OTHER SKILLS

**Languages:**

- Spanish, native

- English, bilingual fluency, C2, 106 TOEFL, Oxford Test of English 137/140

- German, B1 student, A2 degree from RWTH with 1.7 grade (German system)

**Computer Skills:**

- MS Office, MS Project
- Autocad, Inventor, SolidWorks, Siemens NX, Ansys Workbench. Abaqus, Java, Python, Comsol Multiphysics
- Minitab, Matlab