Rodrigo Álvarez Hernández

MSc. Industrial Engineer – MSc. Project Management

Date of Birth: 19th August 1992 Phone No.: (+34) 626 12 48 60 Email: Rodrigo.Alvarez@icai.es Website: www.alvarez-engineer.com

Experience

Flowserve Product Engineer

R&D Industrial Pump division dept.

1/2022 - Present

My responsibilities entail from sustaining the current line of pumps where possible, to the development of new models to improve the current line up with a "Design to Value" mentality. (I.e decreasing cost and complexity while improving performance and specifications.). I managed to rationalize the current line up of tree pumps, into a single, better one, with the cost implications this entails

Indra Sistemas, S.A Project Manager

Airborne platforms program management dept.

10/2018 - 12/2021

End to end leading of airborne R&D defense projects; from budgeting to keeping track of development costs and schedules, while managing communication regarding project status with European Union officials and national stakeholders. Coordinating project teams from different European countries conducting technical meetings following a Systems Engineering Management Plan (SEMP) approach.

Universidad Pontificia Comillas ICAI

Professor

Mechanical Engineer Dept.

09/2019 - Present

Part time professor of "Machine Design, Integration and Verification" and "Product Design". My area of knowledge is robotics as well as flexible manufacturing methods. Giving students an insight on how real companies automate their processes and demonstrating how my lessons can be applied in the real world. Part time research into ROS and reverse engineering methods of design.

HP Inc. Mechanical R&D Engineer

"Wet Mechanics" Dept.

10/2016 - 09/2018

Subsystem integrator for white latex recirculation system for the HP Latex 700/800 program. Designing fluid mechanics systems with manufacturing in mind for cost optimization, conducting my own researched knowledge of Multi jet parts manufacturing (3d Printing) and sharing it company-wise.

Mechanical Engineer, responsible for design, product stabilization & first customer support of the agent delivery system in HP 3200/4200 3D Multi Jet Fusion printer, as well as new platform brainstorming, modelling and test bed implementation of future 3D platform agent delivery.

ALTRAN Innovación S.L

R&D Engineer

Aerospace & Defense Dept.

06/2015 - 09/2016

Mechanical design and system integration for the development of rear auxiliary hybrid propulsion device to fit on narrow body Airbus aircraft to reduce fuel consumption.

Development of a software tool to generate shock response spectra graphs.

Health and safety risk assessment on the manufacturing and assembly of wind turbines.

Education

Universidad Ramon LLul – La Salle

MSc. in Project Management

Barcelona, Spain 2016 - 2018

Final master's thesis: "Strategic purchase in the civil aeronautics industry."

Universidad Pontificia Comillas – ICAI

MSc. in Industrial Engineering (ICAI)

Madrid, Spain 2014 - 2016

Final master's thesis: "Development of a fixed wing drone with vertical takeoff and landing capabilities". (Award to best thesis)

Universidad Pontificia Comillas – ICAI

Degree in Electromechanical Eng. (ICAI)

Madrid, Spain 2010-2014

Final degree thesis: "Development of highly efficient unmanned aerial vehicle for small load transportation". (Distinction with Honour).

Languages

Spanish Native

English Bilingual - C2 CEFR Proficiency (CPE)

French Intermediate - B2 CEFR

Other IT & Engineering Skills

Computer aided Design, Engineering and Manufacturing:

Catia V5, SolidWorks 2015, Solid Edge ST6, AUTOcad, CREO Direct Modelling.

Design of printed circuit boards:

Eagle V7, KiCAD

Programming languages, SW & HW:

C++, Python, Matlab, Arduino

Advanced Microsoft Office Suite skills & VBA (Inc. MS Project)

Additional skills & experiences

Consultant for engineering companies in the 3d printing and reverse engineering realm.

Part time collaboration leading a team of students for "ICAI Engineers towards Development" NGO to develop drones to deliver medical aid in remote locations

Level 2 Award in Sports Community Leadership (Leadership Course)

Driving license

Tinkerer by nature.

References available upon request.