



# ALEJANDRO ALJURE OSORIO

POST-DOC RESEARCHER

ASSISTANT / ASSOCIATE PROFESSOR

## PROFILE

Mechanical engineer with master and PhD degrees in energetics, propulsion and combustion. Experience in academia, focused in thermodynamics, internal combustion engines and fluid mechanics and mathematics, specifically in diffusion combustion modelling. Previous experience in the Oil & Gas field.

## CONTACT

PHONE:  
+593(0)988290740

EMAIL:  
[alaljure@hotmail.com](mailto:alaljure@hotmail.com)

WEBSITE:  
[https://www.researchgate.net/profile/Alejandro\\_Aljure\\_Osorio](https://www.researchgate.net/profile/Alejandro_Aljure_Osorio)

## SOFTWARES

Chemkin, Fortran, Matlab, Cantera, C++, Python, Tecplot, Thermoptim, Ansys, SolidEdge, MS Office.

## LANGUAGES

Spanish	100%
English	95%
French	70%

## HOBBIES

Inline Skating  
Flight Simulator  
Traveling  
Cooking

## EDUCATION

**École Centrale de Nantes – PhD** Nantes, FRANCE

Oct 2015 – Oct 2019

Doctorate in Energetics and Combustion.

Formation in Pedagogy (52 hrs)

**École Centrale de Nantes – MSc** Nantes, FRANCE

Sep 2013 – Sep 2015

Master of Science in Applied Mechanics in Energetics and Propulsion.

**Universidad de Los Andes – BSc** Bogotá, COLOMBIA

Aug 2001 – Mar 2007

Mechanical Engineering. Diploma Cum Laude.

## WORK EXPERIENCE

**Universidad San Francisco de Quito, ECUADOR - Part-time Lecturer**

Aug 2019 – Present

- Main lecturer for Thermodynamics 1, Thermodynamics 2 and Everyday Mathematics courses.

**École Centrale de Nantes, FRANCE - Teaching Assistant**

Oct 2015 – Sep 2018

- Teaching assistant in Combustion courses for undergrad and graduate students.
- Supervisor of Energetics practical labs for undergraduate students.

**Schlumberger IPM (Integrated Project Management), COLOMBIA, ECUADOR, MEXICO - Petroleum Well Engineer**

Aug 2007 – Jun 2013

- Design and planning of drilling, completion and workover wells.
- Supervising execution of operations, data gathering and implementation of new technologies.
- Liaison with the operator's reservoir engineering group.
- Assistance in performing quality and safety investigations.
- Experience as a worker in a drilling rig (rig hand).

## CERTIFICATIONS

French Ministry of Higher Education and Research (MESR)

Qualification for teaching in higher education, section 63 (Thermal Sciences)

Valid: 31-Dec-2024

Ecuadorian Secretary of Higher Education, Science, Technology and Innovation (SENESCYT).

Qualified for higher education teaching, research and higher education management.

## PUBLICATIONS

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- A.ALJURE, X. TAUZIA, A. MAIBOOM - Development of a wall jet model dedicated to 1D combustion modelling for CI engines - International Journal of Spray and Combustion Dynamics, Volume 13, Issue 2-3, December 2021 (Published online), pp 146-163.  
<https://doi.org/10.1177/17568277211059073>
- A.ALJURE, X. TAUZIA, A. MAIBOOM - Comparison of Eulerian and Lagrangian models of diesel fuel injection and combustion – SAE Paper 2017-24-0006, SAE 13th International Conference on Engines & Vehicles (ICE2017), Capri, ITALY, 10-14 September 2017
- A.ALJURE, X. TAUZIA, A. MAIBOOM - Heat Release Rate Modeling Improvement in an Eulerian 1D Diesel Combustion Model – SAE Paper 2018-01-1127, SAE WCX World Congress Experience, Detroit, USA, 10-12 April 2018
- Alejandro Aljure Osorio. A contribution to 1D Modeling of Diesel Sprays and Combustion. Reactive fluid environment. École Centrale de Nantes, FRANCE, 2019. English. (tel-03134907) <https://hal.archives-ouvertes.fr> (PhD Thesis)
- A.ALJURE, 1D Modeling of Diesel Combustion (Poster). Colloque de Recherche Inter-Écoles Centrale (CRIEC) 2018, Nantes, France
- Alejandro Aljure Osorio. Construction of a Model Liquid Fueled Rocket Engine (Thesis). Universidad de los Andes, Bogotá, COLOMBIA, 2007.  
<https://repositorio.uniandes.edu.co/bitstream/handle/1992/23134/u281682.pdf?sequence=1&isAllowed=y>.

## REFERENCES

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Dr Xavier Tauzia, Professor, École Centrale de Nantes, Nantes, FRANCE. E-mail: [xavier.tauzia@ec-nantes.fr](mailto:xavier.tauzia@ec-nantes.fr) Tel: +33(0)2 55 58 90 12

Dr Alain Maiboom, Associate Professor, École Centrale de Nantes, Nantes, FRANCE. E-mail: [alain.maiboom@ec-nantes.fr](mailto:alain.maiboom@ec-nantes.fr)

Christian Saffon, General Manager, Aircraft Digital Company. E-mail: [Christian.Saffon@Aircraft-Digital.com](mailto:Christian.Saffon@Aircraft-Digital.com). Tel: +57 316 6255672.

Wilmar Pastrana, Business Development, Digital & Integration, Schlumberger, Houston, USA. E-mail: [WVargas@slb.com](mailto:WVargas@slb.com). Tel: +1 346 203 2946

Antonio di Teodoro, Professor, Universidad San Francisco de Quito, Ecuador. E-mail: [nditeodoro@usfq.edu.ec](mailto:nditeodoro@usfq.edu.ec). Tel: +593 2 2971700 ext 2140

Lorena Bejarano, Professor, Universidad San Francisco de Quito, Ecuador. E-mail: [lbejarano@usfq.edu.ec](mailto:lbejarano@usfq.edu.ec). Tel: +593 2 2971700 ext 1047