



WORK OFFER

Ref. No. EC-2021-USFQ-020

Employer Information

Employer: San Francisco University
Diego de Robles s/n y Pampite, Cumbaya
Quito
Ecuador

Website:
Location of placement: Cumbaya
Nearest airport:
Working hours per week: 40.0
Working hours per day: 8.0

Number of employees: 0
Business or products: Education

Student Required

General Discipline: MECHANICAL ENGINEERING; CHEMISTRY AND CHEMICAL ENGINEERING

Completed years of study: 3

Field of Study: .Mechanical Engineering.

Student status requirements: required when nominated

Language required: English Good (B1, B2) Or Spanish Good (B1, B2)

Required Knowledge and Experiences:

Familiarity with CFD software such as ANSYS Fluent and/or COMSOL.

Other requirements:

- Excellent communication skills in English (Writing, speaking).
- Basic knowledge of chemical reaction kinetics.
- Basic knowledge of heat and mass transfer.
- Basic knowledge of organic chemistry.
- Basic knowledge of fluid mechanics and CFD.

Work Offered

CFD Simulation of the pyrolysis of cellulose in a fluidized bed reactor

Biomass is a good source of carbon-containing building blocks for the chemical and fuel industry. One way to obtain useful chemicals is thermally decomposing the feedstock during pyrolysis. We want to understand the temperature time evolution of biomass when heated inside a fluidized bed reactor during pyrolysis. Ultimately, we want to understand the effect of the heating rates in the production of levoglucosan and other products inside this kind of reactor when pyrolyzing cellulose.

- Literature review on cellulose pyrolysis.
- Review of previous results obtained in this project.
- Simulation of the pyrolysis process in a fluidized bed reactor using Computational Fluid Dynamics (CFD).
- Report findings in an academic article (draft).

Number of weeks offered: 8 - 12

Working environment: Research and development

Within the months: 30-AUG-2021 - 17-DEC-2021

Gross pay: 400 USD / Month

Or within: -

Deduction to be expected: 12% less

Company closed within: -

Payment method / time of first payment: Cash /

Latest possible start date:

Accommodation

Canteen at work: Yes

Expected type of accommodation: host family, hostel

Estimated cost of lodging: 200 USD / Month

Accommodation will be arranged by: IAESTE

Estimated cost of living incl. lodging: 400 USD / Month

Additional Information

As a student you will be enrolled at San Francisco de Quito University, therefore your legal status in Ecuador will be as a student doing a cultural exchange program, in order to complete your studies. Despite of the fact that Ecuador allows almost every country to come as a tourist, you must to request an extension of permanence in Ecuador if you stay longer than 90 days.

It is mandatory to apply a visa before coming to Ecuador for the following countries: Afghanistan, Angola, Bangladesh, Republic of Cameroon, Cuba, Eritrea, Etiopia, Gambia, Ghana, Guinera, India, Irak, Kenia, Libia, Nepal, Nigeria, Pakistán, Democratic Republic of the Congo, North Korea, Senegal, Siria, Somalia, Sri Lanka, Venezuela. Students must have Health Insurance and RT-PCR test negative.

Accommodation will be arranged by IAESTE ECUADOR; we will pick you up from the airport and take you to your host family or hostel.

Nomination Information

Deadline for nomination: 31-MAR-2021

Date: 20-JAN-2021

On behalf of receiving country: Andrea Peñaherrera Escobar



IAESTE

ECUADOR



Ecuador is a country of spectacular variety and beautiful scenery. From beaches to volcanoes, you can expect to find almost any kind of environment here; there are a lot of activities to enjoy in this country. Ecuador is divided into three distinct regions Coast, Sierra and Oriente. The coast is hot and dry with sandy beaches, rolling surf and lively towns. The mountainous centre, or Sierra, is a place of snowcapped Andean peaks, colonial towns and vibrant local markets. And the tropical lowland, the Oriente which takes in parts of the Amazon, is home to innumerable species of wildlife and indigenous inhabitants. In addition Galapagos Islands is part of Ecuador; The actively volcanic islands are home to fascinating creatures found nowhere else on Earth, including marine iguanas, giant tortoises, flightless cormorants, and a diverse variety of finches.

IAESTE ECUADOR National Committee is located in Quito at Universidad San Francisco de Quito. Here all the administrative processes for your internship are arranged.

The members of the local committee will be responsible for picking you up from the airport or sending instructions by email to get to your accommodation.

Not all traineeships are based in large cities where you can find **IAESTE local** contact points. In this case, **IAESTE** is not in the position to contact you on regular basis. For a satisfactory working relationship between the company and the trainee, it is expected that the trainee has good social skills and is capable of taking initiative.

WHAT WE EXPECTED FROM TRAINEES:

IAESTE ECUADOR puts a lot of effort in raising **IAESTE** jobs in Ecuador. The Universities and Companies are assured of highly qualified and motivated students for the internship. Therefore, we kindly ask you to read the work offered carefully and apply only if you consider yourself qualified. Also, we know that travel is an important opportunity of this experience, but keep in mind that first priority is to obtain professional experience.

HOW TO APPLY:

Please in order to apply to the offer you will need to include the following documents:

- The documents must be sent in one file in order as listed above. The file has to be in PDF format, with the maximum size not exceeding **3MB**.
- Please name the file according to the scheme:
Ref No. Name _Surname.
Example: ECUSFQ19_01_Tom_Smith.pdf
- For Graphic design and Architecture the student should enclose an electronic version of your portafolio in spate file (not exceeding the 6MB).

1. Student Nominated Form: must be typed and please include the job reference number from the Form O.

2. Form O.

3. Cover letter to the employer.

4. Curriculum Vitae with a digital photo.

5. List of subjects studied in English.

6. One Recommendation Letter.

7. Enrolment Certificate, not only at the time of the nomination but also during the period of the internship.

8. Official Letter of the University, to confirm that this internship is an integral part of your study program and that the student will return to the university after the internship to complete the studies.

9. Language Certificate.

10. Copy of your passport.

VISA AND LEGAL STATUS

As a student you will be enrolled at Universidad San Francisco de Quito, who is the official sponsor of IAESTE Ecuador. Therefore your legal status in Ecuador will be as a student at Universidad San Francisco de Quito, doing a cultural exchange program, in order to complete your studies.

- Despite of the fact that Ecuador allows almost every country to come as a tourist, you must to request an **extension of permanence in Ecuador**, foreign citizens who do not belong to countries of South America, can obtain an extension of time up to (90) ninety days, in the Immigration Support Services nationwide prior to the payment of the third part of the unified basic salary.
- It is **mandatory to require a visa** in order to visit Ecuador for the following countries: Afganistán, Angola, Bangladesh, Camerún, Cuba, Eritrea, Ethiopia, Gambia, Ghana, Guinea, India, Irak, Kenia, Libia, Nepal, Nigeria, Pakistán, Democratic Republic of the Congo, North Corea, Senegal, Siria, Somalia, Sri Lanka, Venezuela.
The cost of the extension will be **150 dollars**, but you can ask to the Embassy so you will confirm the price. Visit this website for Ecuadorian consulates around the world.

<http://www.ministeriointerior.gob.ec/servicio-de-apoyo-migratorio/>

HEALTH INSURANCE

Students must have an International Health Insurance in order to come, we recommend all the students to know how it is working properly in Ecuador, and what is the process in case of any accidents or diseases.

ACCOMODATION

Accommodation will be arranged by **IAESTE ECUADOR**; we will pick you up from the airport and take you to your host family or guess house. Make sure to confirm your information with us 2 days before your arrival.

MONEY

Is necessary to bring with you cash money for at least the first month, **at the end of the month you will get the payment by the employer** and that will only cover your room and transportation in most of the cases.

The salary you will receive will be per each month (the employer don't pay by weeks) so is better to apply for full months.

The payment of the accommodation will be **around \$ 170 (shared room) to \$ 200 (single room without bathroom)** or **\$240** Single private room, depending on the place where you are assigned.

Transportation is **\$ 0, 25 ctvs** in the city.

Taxis the minimum payment is **\$ 1,50** and a taxi from the airport is **minimum 30 dollars** daily hours. Food you can find cheap places for about **\$ 3, 50** each meal.

LANGUAGE

The official language is Spanish; also some native indigenous languages are spoken in Ecuador. English is the most spoken foreign language especially among young people.

SECURITY

We totally recommend you to take care of yourself. Please avoid walking alone by night, also do not bring with you more than **20 dollars** once you are walking. When you are walking keep your Laptop or cell phone in a safe place to avoid the attention of robbers. Regarding, your identification you will need a copy of your passport instead of the original, only when you travel take your original passport.

VACCINATIONS

If you want to travel for tourism to Amazon region to its natural reserves or if your traineeship will be done there, employers require for Laboral purpose that all students must have vaccinations for the following:

- Hepatitis A
- Hepatitis B
- Typhoid
- Tetanus
- Yellow Fever

Finally we wish you a pleasant and successful stay in Ecuador!!