



Energize your potential

IFP School

The graduate school for energy and transportation professions

IFP School prepares engineers for work in the energy and transportation sectors.

Our mission is to train the experts who will drive the transition to the new energy economy and meet current industrial and societal needs in the fields of energy, oil, gas, petrochemicals and powertrains.

Our strong industrial partnerships, our position within IFP Energies nouvelles, our multidisciplinary educational programs, international prestige and unique work environment have helped our students succeed since the School's founding in 1924.

TRANSITIONING TO NEW AND CLEAN ENERGIES

Unprecedented challenges are facing the energy industry in the 21st century. This is especially true in the transportation field, where global demand is growing exponentially and shows no sign of letting up. Oil and gas are non-renewable resources that will not meet this demand indefinitely. However, no alternative energy solution is currently available to serve as a rapid and comprehensive substitute. At the same time, finding a solution to the global warming issue is becoming increasingly urgent.

In this situation, how can we secure a sustainable source of energy for the future? How can we maintain our energy supply and limit greenhouse gas emissions?

To address these various challenges and achieve sustainability, our societies need to develop clean and renewable energies.

This means creating the conditions necessary for a progressive and balanced transition. Diversifying our energy sources will enable us to limit impact on the environment while we search for new alternative energies.

IFP School trains high-level professionals who can respond to today's and tomorrow's energy challenges, thus satisfying the needs of the energy and transportation sectors.



Excellence, diversity and innovation are the fundamental values of our School; values that we are constantly striving to exceed. We do everything we can to make sure these values accompany you through your future successes and responsibilities.

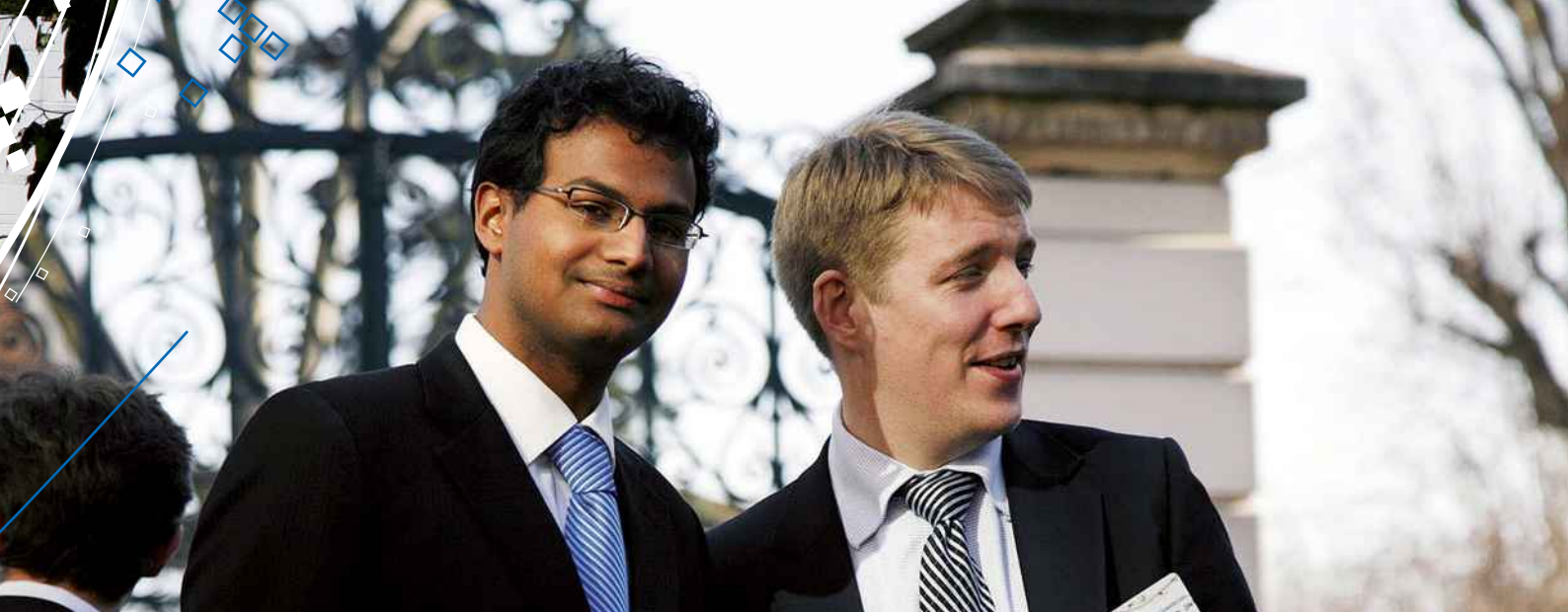
The energy and transportation sectors are facing challenges that transcend national boundaries. By attending IFP School, you will receive an exceptional education enabling you to be immediately operational in the field you choose – and ready to build the world of tomorrow!

A handwritten signature in blue ink, appearing to read 'Pinchon', written over a light blue background.

Philippe Pinchon,
Dean of IFP School



Read the history of
IFP School



TRAINING FOR THE PROFESSIONS OF TODAY AND TOMORROW

The energy and transportation sectors look for well-rounded candidates with a good sense of judgment, critical thinking skills, an aptitude for working on multicultural teams and knowledge of the challenges currently facing society.

To prepare such candidates, IFP School trains students to become skilled, broad-minded and responsible professionals who will play an active role in the development of companies and of society in general.

Our School offers a wide range of high-level programs which lead to internationally recognized degrees.

IFP School provides professionally-oriented training. You will have the opportunity to think about all the environmental and ethical aspects of your future profession and also become acquainted with a wide range of topics related to the industry.

FIELDS TAUGHT AT IFP SCHOOL

IFP School prepares students looking to join industrial groups specializing in a variety of energy and transportation fields, such as:

- international oil and gas groups,
- energy companies,
- petroleum services companies,
- engineering companies,
- national oil companies,
- automobile manufacturers,
- components suppliers, etc.

Our graduates work in a broad range of professions in sectors that are international by nature. They work in head offices, subsidiaries and in the field.

Every year, more than 120 companies and groups recruit IFP School graduates. For industry-oriented graduate programs, our student employment rate upon graduation is 97%.

IFP SCHOOL IN FIGURES

17 Master's programs, including 7 taught in English

40 permanent professors

350 lecturers from industry

600 graduates per year

50% international students

80% of students receive industry-backed financing

97% employment rate upon graduation

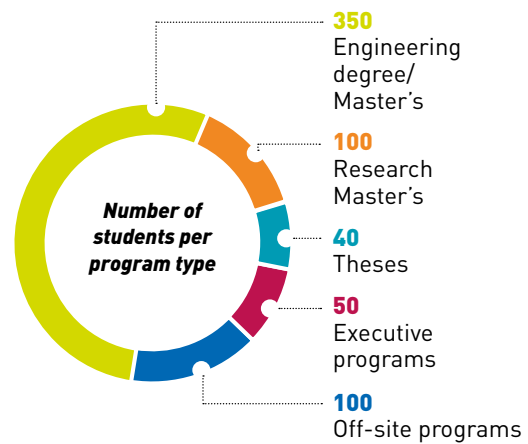
13,000 alumni active in more than 100 countries

Our programs

IFP School offers graduate programs in French and in English for young engineers and industry professionals

We offer a wide range of high level graduate courses that meet the needs of industry and applied research:

- applied graduate programs for today's and tomorrow's industry professions, which award an engineering degree or a Master's degree,
- research Master's programs,
- doctoral programs,
- executive programs for experienced professionals,
- off-site degree programs conducted in oil-and-gas-producing countries.



Details
about our programs



Our industry-oriented programs

Our offer includes 10 industry-oriented graduate programs, organized into four major fields in energy and transportation

The fields covered by our industry-oriented programs include: Exploration-Production, Energy Sector Processes, Powertrains and Products, Economics-Management.

These applied graduate programs aim to provide students with all the skills and knowledge necessary for their profession (theory, practical application, economic skills, project management, corporate culture, management, etc.), so that students are immediately operational upon graduation. The programs also prepare them for changes that will occur in the context of the current energy transition.

OUR MODEL: STUDENT-CENTERED LEARNING

Students and their professional aspirations are IFP School's foremost priority. In 2011, the School implemented a new learning model designed to help students set up their personalized training plan and assist them in their professional endeavors.

IFP School teaching methods encourage intensive interaction and collaboration on projects. Using this approach, you will achieve a set of core professional goals common to all IFP School students: becoming a responsible professional, learning to integrate into a multicultural environment, working in groups and communicating effectively.

During periodic discussions with your personal advisor, you will set your training priorities and choose courses in order to reach your program's academic goals and IFP School core goals.

You can attend specific workshops designed to help you prepare for your entry into the job market. The Personal Skills Incubator gives you the opportunity to work on non-technical skills, including job hunting, personal development, management, creativity and more. These activities will help you

increase your self-knowledge, reflect on your professional decisions and develop important skills for your future.

In addition, language classes are offered to prepare you for professional mobility.

Today, English is the international language of the energy and transportation sectors. Mastering the language is therefore crucial. Having an English level corresponding to at least a score of 800 on the TOEIC should be one of your priorities.

Language classes are available to help you improve both your English language and French language skills. Classes are mandatory if you do not meet the minimum language requirement at the start of the academic year and optional if you want to perfect your skills.

Spanish and German classes may also be offered throughout the academic year, depending on student demand.





Exploration-Production

IFP School offers you three applied training programs:

- **Petroleum Geosciences**
- **Reservoir Geoscience and Engineering**
- **Petroleum Engineering and Project development***

* program in French

Discover new hydrocarbon accumulations and optimize production

Rising global demand for hydrocarbons has made it essential to start up exploration programs and discover new resources. In this context, it is also necessary to develop accumulations in a sustainable way and optimize gas and oil production, notably by increasing the recovery rate.

IFP School graduate programs aim to develop your skills and innovation capacity in order to meet the technological challenges of complex Exploration-Production projects, whilst managing their environmental and societal impact.

Disciplines covered: geosciences, reservoir engineering, drilling and production

The three programs in the Exploration-Production field provide professionally-oriented training.

You will learn to explore and discover new accumulations, understand the structure of existing fields, optimize their production and develop new ones in a variety of environments (offshore, unconventional hydrocarbons, etc.).

These disciplines are taught through a variety of practical case studies using real data and group projects. You will often work on the field during your studies, for example during geology/geophysics workshops and drilling/production site visits.

Career opportunities, main professions

- geologist, geophysicist, reservoir engineer, drilling engineer, production engineer
- for major oil and gas groups or oil services companies (services, engineering)

Number of students: approx. 120 students/yr

Kingsley (Nigeria), Master in Petroleum Geosciences, major in Geophysics

«What I really like about IFP School is that we learn more than just theory. A lot of time is spent putting lessons into practice. At the end of the program, we are very well-prepared to work in the oil and gas industry.»

Alexandra (Russia), Master in Petroleum Engineering and Project development

«After receiving a Master in Oil and Gas at the University of Moscow, I chose IFP School to open up new opportunities. At the School, a lot of professionals from different international companies shared their expertise with us. My goal was to work for an international company. I am now working on a major project in Gabon.»

Main companies that sponsor and recruit IFP School students

BP, Cepsa, CGGVeritas, ExxonMobil, GDF Suez, Onhym, Perenco, Petronas, PTT, Saipem, Saudi Aramco, Schlumberger, Shell, Statoil, Total



Energy Sector Processes

IFP School offers you two applied training programs:

- **Energy and Processes***
- **Processes and Polymers**

* program in French

Designing, operating and optimizing energy sector processes

Environmental issues and lack of resources abound in the context of the current energy transition. For this reason, it is crucial to improve existing processes and use a diversified set of resources.

IFP School graduate programs aim to develop your skills in the fields of process optimization, the design and operation of refinery facilities, gas treatment, petrochemicals and polymer production and the development of biomass technology. The emphasis throughout these programs is on energy efficiency.

Disciplines covered: engineering, refining, gas processing, petrochemicals and polymers

The two programs in the Energy Sector Processes field provide professionally-oriented training. You will learn to design, operate and optimize industrial facilities.

In addition to technical and economic skills, these disciplines also increase your understanding of safety, the environment and sustainable development. Throughout your studies, you will work in a multicultural arena that helps you become quickly operational for a career in a demanding international environment.

Career opportunities, main professions

- process, operations, maintenance, planning engineer, product development engineer, R&D engineer, technical-commercial engineer, etc.
- for engineering companies, for energy, oil and gas groups

Number of students: approx. 80 students/yr

Praveen (India), Master in Processes and Polymers

« My studies at IFP School and my internship were rewarding experiences. I discovered the responsibilities that I will have to face in the professional world after graduating. I had the opportunity to meet professionals from different fields and I learned a lot from their experience. »

Robin (France), Master in Energy and Processes

« I am from Arts et Métiers, a school geared towards general engineering. Through my apprenticeship course at IFP School, I have acquired a more concrete vision of processes thus giving me a more complete education. Being an apprentice is not simply being a student – it has a special status. From the very start I was welcomed by the company as a professional and was assigned real projects to work on. »

Main companies that sponsor and recruit IFP School students

Air Liquide, Arkema, Axens, ExxonMobil, GDF Suez, IFP Energies nouvelles, Michelin, Prosernat, Saipem, Shell, Technip, Total



Powertrains and Products

IFP School offers you three applied training programs:

- Energy and Powertrains*
- Powertrain Engineering
- Energy and Products*

* programs in French

Meeting a growing demand for mobility

Faced with growing demand in the transportation sector, it is now essential to design innovative automotive powertrain solutions that make optimal use of energy resources.

IFP School graduate programs aim to develop your skills over the entire development chain for engines and powertrains. You will tackle environmental and societal challenges head on: reducing CO₂ emissions and fuel consumption, using alternative energies.

Disciplines covered: powertrains, energy and environmental challenges, products

The three programs in the Powertrains and Products field provide professionally-oriented training, designed to meet the demands of a highly competitive sector in constant evolution. You will be expected to have full command of the entire powertrain, from combustion to in-vehicle integration. You will also learn to optimize product use (fuels, lubricants).

Close collaboration with our industrial partners helps us tailor our programs to ongoing technological changes in the powertrain industry. Throughout your studies, you will have access to high quality experimental methods – test benches for engines, components and vehicles, modeling tools, etc. – enabling you to work under the same conditions as industry professionals.

Career opportunities, main professions

- engineer in functional design, in mechanical design, in engine and powertrain control, engineer in the development of products (fuels and lubricants), technical support to marketing, logistics and product use
- for original equipment manufacturers (automotive, aeronautic, marine, etc.), components suppliers, engineering companies and R&D laboratories, energy companies

Number of students: approx. 80 students/yr

Anthony (France), Master in Energy and Powertrains

« I chose IFP School for its professionally-oriented specialized training. I wanted to acquire technical and applied skills.

Today, I'm working on a project for a low-emission hybrid vehicle. I'm working on ideas that may become integral parts of our daily lives in the next five years. »

Felipe (Brazil), Master in Powertrain Engineering

« Studying in another country is an enriching personal experience because you discover other cultures, other ways of working...

On top of that, Brazilian companies see international experience as a major advantage. So, I think it will be easier to find a job when I go back, especially in Brazil's growing automotive sector. »

Main companies that sponsor and recruit IFP School students

Bosch, Delphi, ExxonMobil, Ford, IFP Energies nouvelles, Mubea, PSA Peugeot Citroën, Peugeot Motorcycles, Renault, Renault F1, Shell, Total, Valeo, Volvo Powertrain

Economics-Management

IFP School offers you two applied training programs:

- **Energy and Markets***
- **Petroleum Economics and Management**

* program in French

Training energy sector analysts

Confronted with a variety of technological and environmental challenges, the energy sector now needs professionals who not only have strong technical skills, but also knowledge of economics and finance.

IFP School graduate programs aim to develop your decision-making skills in a complex, globalized marketplace, while also increasing your understanding of sustainable development issues.

Disciplines covered: financial management, economics, management and decision-making tools

The two programs in the Economics-Management field provide professionally-oriented training, designed to bring you an overall understanding of the energy and transportation sectors.

Upon graduation, you will have mastered economic analysis and major management and finance tools, while having gained an understanding of major issues concerning the energy transition.

The disciplines taught are complemented by a number of case studies as well as corporate immersion workshops. Throughout your course of study, you will work in a stimulating multicultural environment that prepares you for a career in the energy sector's international environment.

Career opportunities, main professions

- energy economist, energy markets analyst, investment or cost control manager
- in a variety of sectors: oil, gas, electricity, energy and CO₂ trading, transportation, financial banking, consulting

Number of students: approx. 70 students/yr

Elizabeth (United States), Master in Petroleum Economics and Management

«Most of our classes at IFP School are conducted by industry professionals. It's an effective approach, since we examine both practical and theoretical questions. With the Petroleum Economics and Management program, I will receive a dual degree from IFP School and Colorado School of Mines – a real advantage in the international market.»

Jérôme (France), Master in Energy and Markets

«I really appreciated the multicultural and international environment of IFP School. At the School, we have the opportunity to meet students from all over the world. It is so enriching from a personal standpoint to discover so many cultures and people from completely different horizons.»

Main companies that sponsor and recruit IFP School students

BP, Cepsa, EDF, ExxonMobil, GDF Suez, PSA Peugeot Citroën, Renault, Saipem, Saudi Aramco, Shell, Technip, Total

Admissions and funding

Particular conditions of admission and funding in the industry-oriented programs

ADMISSIONS

Applicants to IFP School applied graduate programs must have an engineering degree or equivalent, corresponding to four years (American BSc, for example) or five years (French engineering degree, for example) of higher education. Applicants are selected on the basis of their application, followed by an interview.

Applications are accepted from 15 November (year n-1) to 31 March (year n) for programs starting in early September (year n). We recommend that you send your application as early as possible. The list of admissions is published on the IFP School website in mid-May.

Please note

Students applying for a program taught in English must show a minimum TOEIC score of 750 (or equivalent) before the admissions board convenes. A minimum level of French is also required for admission to a program taught in French. Over the summer, we organize intensive English and French language classes for students who need to increase their language skills or want to start their transition into campus life.

FUNDING

Almost all IFP School students are sponsored by a company or an institution that finances their living costs during the program and contributes to tuition fees.

This kind of support generally comes in three forms: **sponsorship**, **apprenticeship** and study leave (only for active professionals).

What is sponsorship?

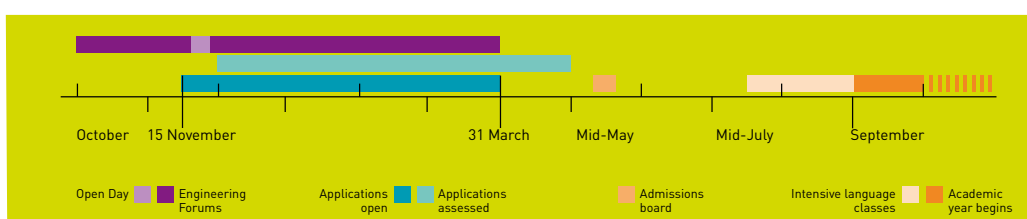
A partner company makes a contribution to the Tuck Foundation, which maintains a scholarship fund. The Tuck Foundation then awards a scholarship under the corporate sponsor's name to the selected student.

What is apprenticeship?

Apprenticeship is a method of acquiring skills and knowledge that is based on alternating work and study periods: apprentices receive training both at IFP School and in companies, under the supervision of an apprenticeship supervisor. Apprentices are salaried employees of their respective companies throughout the duration of their course (at the School and in the company). This learning structure mainly concerns European students.

Other funding methods are available: government grants, scholarships from foundations and other institutions as well as academic excellence scholarships awarded to several students of the School each year.

Finding funding takes time: prepare your IFP School application and apply for funding at the same time!



Submit your application





Other programs

While the majority of courses offered by the School are industry-oriented, others are research-oriented, or for experienced professionals

RESEARCH MASTER'S PROGRAMS: HIGH-LEVEL ACADEMIC TRAINING PROGRAMS

IFP School has partnerships with French universities and engineering schools for four research Master's programs ("M2"):

- Master in Geosciences – with Université Paris 6 UPMC,
- Master in Catalysis and Processes – with École centrale de Lille, École de Chimie de Lille and Université Lille 1,
- Master in Electrification and Automotive Propulsion – with École centrale de Paris, ENS Cachan and Supélec,
- Master in Environmental Economics, Sustainable Development, and Energy – with Université Paris Ouest Nanterre La Défense, Agro ParisTech, Mines ParisTech, École polytechnique ParisTech, École des Ponts ParisTech, INSTN, EHESS and Université de Bourgogne.

These programs are taught in French and are open to students with at least four years of higher education.

DOCTORATES: MORE THAN 40 NEW THESES TOPICS EVERY YEAR

Each year, more than 40 new PhD topics are offered in IFP Energies nouvelles research departments and partner laboratories. The topics are published on the School's website.

Our 3-year doctoral programs are open to students with a Master's degree or equivalent.

EXECUTIVE PROGRAMS: TRAINING PROGRAMS FOR EXPERIENCED PROFESSIONALS

IFP School offers programs designed for professionals with significant corporate experience. These training programs last one or two years and are typically organized into modules that last several weeks, with work periods in between.

- Degree of Advanced Studies, specialization Engines,
- Executive Master of Management in Energy – with BI Norwegian Business School (Oslo, Norway) and University of California Berkeley (United States),
- Executive MBA in Energy – with BI Norwegian Business School.

These programs are only open to active professionals in the industry who have at least four years of higher education.

IFP SCHOOL OFF-SITE PROGRAMS

To meet the needs of companies, IFP School has created some programs outside of France in partnership with local universities.

These programs are tailored to the specific needs of the country and designed to meet the same standards as our training programs in France. Off-site training programs are currently conducted in Malaysia, Nigeria, Russia and Saudi Arabia.

Our assets

IFP School has the tools to prepare students to meet the industrial needs of today and tomorrow

INDUSTRIAL INTEGRATION AS A LEARNING MODEL

The IFP School learning model relies on close ties with industrial companies of the energy and transportation sectors.

■ Sponsoring IFP School students

More than 80% of students in our applied graduate programs receive support from one of our industrial partners. Sponsorship details are listed on page 10.

■ Participation in training programs

Every year, more than 350 professionals are responsible for teaching students (classes, practical workshops, projects). In addition, part of the program for apprentices is conducted in companies, where specific skills are acquired. Our partners also provide concrete data that helps us prepare projects based on industrial case studies, so that our students can experience the realities of professional life.

■ Representation in School bodies

Several major companies have representatives in IFP School consulting and steering bodies. This gives them the opportunity to take part in the major strategic decisions made at the School.

IFP SCHOOL: AN INTERNATIONAL STANDARD FOR TRAINING IN ENERGY AND TRANSPORTATION

IFP School is an international school that attracts talented international students and prestigious professors from around the world. We cultivate diversity as a source of development and enrichment, since the activity sectors covered at the School are multicultural by nature:

- 50% of IFP School students are international students from more than 50 countries,

- half of our programs are conducted entirely in English,
- the School maintains academic partnerships with numerous universities and schools, notably in Norway, Russia and the United States, where selected students can pursue a part of their education.

With its high level of diversity and exchange, IFP School prepares students for the professional, intellectual and geographic mobility that characterize the energy and transportation professions.





PART OF IFP ENERGIES NOUVELLES

IFP School is an integral part of IFP Energies nouvelles (IFPEN), a public-sector research, innovation and training center.

Being part of IFPEN means the School can provide students with an exceptional learning environment: classes conducted by more than 100 IFPEN research engineers, access to advanced technical and IT tools and methods (laboratories, test benches, pilot facilities, software, document resources, etc.).

Adding to IFPEN's excellence: in 2005, the Nobel Prize in Chemistry was awarded to Yves Chauvin, Engineer and Research Director at IFPEN from 1960 to 1995.

With IFPEN's potential for innovation and its latest advanced technological developments designed to solve the issues of tomorrow's world, IFP School prepares you for the challenges of the energy transition over the decades to come.

IFP SCHOOL FACULTY

IFP School training programs are carried out by research professors and industry professionals: IFP School professors, IFPEN researchers, academic and industrial specialists, consultants, etc.

Our faculty's diversity creates an eclectic educational environment that contributes to the quality of our education.

The diversity of the IFP School faculty also provides an overview of the different aspects of energy challenges, from advanced research to industrial applications.

IFP SCHOOL CHAIRS

IFP School has established teaching and research chairs in order to support research and provide the industry with skilled professionals trained in these key topics.

Since 2008, four chairs have been created with the support of the Tuck Foundation. Each chair holder is a recognized academic who conducts and supervises the research and education activities outlined with the sponsor(s) for each field:

- Sedimentology and reservoir characterization, with Total,
- Thermodynamics for biomass fuels,
- Hybrid vehicles and energy control,
- Economic modeling applied to the environment and energies.

In the case of a doctorate, for example, these chairs offer you the chance to acquire new skills in an advanced field and to meet the needs of companies looking to develop innovative skills in their sector.

Campus Life

IFP School is located in Rueil-Malmaison, 8 km west of Paris, on the IFP Energies nouvelles site

EXCEPTIONAL SURROUNDINGS AND A MULTICULTURAL ENVIRONMENT IDEAL FOR STUDY

The School is 30 minutes from the center of Paris by public transport (RER A).

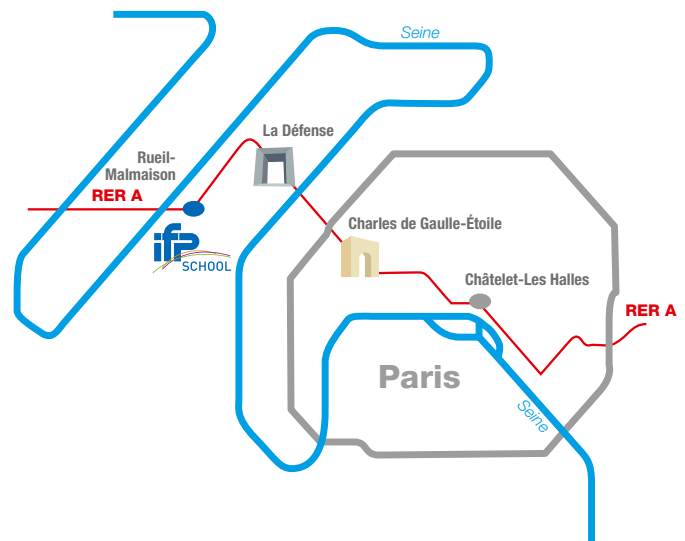
The School's location provides two major advantages. It is near La Défense, Paris' major business quarter, where major energy companies and services companies are headquartered. The city of Rueil-Malmaison also includes more than 500 hectares of green space, such as the Malmaison forest and the Parc de Bois-Préau, both of which are just a few minutes walk from the campus.

We work continuously to promote cultural diversity and exchange among our students, who hail from a variety of countries. With the excitement of Paris and serenity of Rueil-Malmaison, the IFP School campus offers an ideal setting for quality of life and academic success.

ACCOMMODATION CLOSE TO THE SCHOOL

IFP School has one hall of residence on campus, providing 121 studios (18 m²) and 11 2-room apartments (38 m²). Each is fully equipped and furnished, with a living area, kitchenette and bathroom. In addition, the building contains a self-service laundry room, parking lot and household linen service (supply and laundering).

IFP School has also reached agreements with other halls of residence that meet the same standards and are located near the School.



Initial support at IFP School

As soon as you are admitted to the School, our Welcome Office will help you find accommodation near the School, either at our hall of residence or in a privately owned apartment.

We also provide logistical support for our international students as soon as they arrive in France: reception, help with administrative procedures – medical insurance, residence permits and bank accounts.





SCHOOL LIFE AND CULTURAL EVENTS

The Student Association plays an important part in student life at IFP School. Its members organize a number of events, such as weekend trips to European capitals, ski trips, go-kart outings and more.

Each year, IFP School lends its support to student competition projects: Grand Prix de l'École Navale, 4L Trophy and more.

Furthermore, two professional associations from the energy sector have a student chapter at the School and organize conferences:

- the American Association of Petroleum Geologists (AAPG),
- the Society of Petroleum Engineers (SPE).

Each year, student teams take part in competitions organized by professional associations and academic societies. IFP School students won the international Imperial Barrel Award (IBA) competition, sponsored by the AAPG, in 2010; the global FIELD Challenge competition sponsored by EAGE in 2011 and the European IBA competition in 2012.

THREE MAJOR EVENTS IN THE ACADEMIC YEAR

- The **School integration day** takes place at the start of the school year. In the morning, current students give presentations to introduce each program. Students then meet on the grounds of the Château de Vert-Mont in the afternoon for sports and fun activities that help build class spirit.

- In May, the **Pétrofolies**, organized by the Student Association, invites all IFP School students to take part in sports and other competitive events.
- The IFP School **graduation ceremony** takes place each year in June with the friends and family of the successful graduates.

ALUMNI: KEEPING ABREAST OF LIFE IN THE SCHOOL

The IFP School community maintains a rich and dynamic network of nearly 13,000 alumni, present in 100 countries, so as to maintain relations between the School and former students. An online alumni directory and lifetime e-mail addresses are available to help our alumni keep in touch. In addition, alumni chapters have been created in Spain, Houston and Rio de Janeiro.

Finally, the IFP School Alumni Association offers services such as employment and career opportunities, conferences, cultural outings and an annual dinner.



Visit the Alumni website

MY NOTES

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CONTACT

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