

# Artificial Intelligence & Engineering APPLIED TO SMART CITIES

PROGRAM TAUGHT IN ENGLISH

**AN INTERNATIONAL SUMMER SCHOOL IN FRANCE**

July 6<sup>th</sup> to 15<sup>th</sup>, 2020 (ESTP Paris) | July 16<sup>th</sup> to 24<sup>th</sup>, 2020 (EPF Troyes)





# AN INTERNATIONAL SUMMER SCHOOL OF APPLIED SCIENCES

## 2-MODULE PROGRAM TAUGHT IN ENGLISH



### OVERVIEW

This program offers an in-depth study on topics related to the application of artificial intelligence (AI) and various new technologies integrated in smart cities and built environments. AI's impacts on the planning and designing of urban areas as well as the management of cities will also be covered.

Courses will give an overview on how big data, together with Internet of Things (IoT), AI and Machine Learning are being applied in every field of society, especially where complex decisions need to be made with numerous stakeholders.

Students will learn more about AI's potential to solve problems related to rapid urbanization including mobility challenges, energy shortage, health and environmental issues as well as to provide comfort, security and resilience in built environments.

Another course will focus on how AI could be a relevant tool to tackle social problems on a city scale by promoting citizen-centered applications, crowdfunding projects and collaborative open data platforms.

### A STIMULATING LEARNING ENVIRONMENT!

- Lectures & workshops on real projects
- Introduction to Research
- Networking opportunities
- Enriching multicultural experience
- Case studies with the support of local authorities



### STUDENTS' PROFILE

Open to English-speaking Bachelor or Master students with a background in Architecture, Urban Planning, Computer Sciences, Engineering or any related fields.

## ACADEMIC TOPICS

Students can participate in one or both modules:

Module 1		
New Technologies applied to Intelligent Cities and Smart Environments	July 6-15, 2020	Paris-Cachan
Module 2		
Artificial Intelligence and Big Data in Urban Planning, Design and Management	July 16-24, 2020	Troyes (Champagne Region)

### The following subjects will be covered:

- Smart cities, Smart grid, Smart building
- AI for climate change mitigation
- Big data, artificial intelligence and machine learning for sustainable development
- Citizen science and public engagement in smart cities
- Digital revolution and AI challenges

### Each module includes:

- 20 hours of lectures and supervised teamwork
- 1 real project
- 1 session of French culture (theatre, French cuisine workshop, etc.)
- 1 meeting session with researchers and lab visits
- 2 cultural visits
- 1 welcoming lunch and 1 farewell cocktail

At the end of each module, and upon success, students may obtain a certificate and 3 Credits (ECTS).

*Note: Program content may be subject to change or cancellation based upon low enrollment*



## CULTURAL VISITS AND FIELD TRIPS

Besides the academic lectures, complementary field trips and project site visits, a cultural program will allow students to discover 2 of the most beautiful areas of France: Paris & the Champagne region.

They will discover the splendid cultural heritage of France's capital city and the Parisian world renowned for its cultural life including world famous theatres, museums, architectures and excursions on Seine River.

They will visit the wonderful medieval city of Troyes famous for its architecture, stained glasses and also the Champagne vineyards in the Champagne-Ardennes region.

All students will be initiated to the French language in addition to cultural visits, which will contribute to a perfect understanding of the local social and professional environment.



## APPLICATION AND FEES

The program fee of **750 €** per module covers:

- Tuition and documentation
- Welcome and farewell events
- Access to EPF and ESTP Paris facilities
- Free internet access
- Official programme certificate
- Cultural and social events
- Accommodation may be arranged upon request (+ 350 € supplementary per module, if available)

Living expenses, individual insurances and visa fees are not included.

Applications on [www.epf.fr/en](http://www.epf.fr/en)

*"The summer school program has enabled me to have a clear view of how to implement our theoretical knowledge in practical aspects. The visits of Challenger, Bouygues headquarters, Troyes tourist information building, and many others, gave us a realistic approach of the building. The summer program taught us how to handle problems keeping in mind the required norms and regulations of building. The experience in France has helped me widen my vision by working with international architects and students having different creativity and thinking criteria. The main aim of coming to France was to analyze the studies being carried out there and I can surely say that I would love to go back to France for my master's degree. This whole experience (the visits, lectures and workshops), really helped me enrich my knowledge and skills."*

Himanshi, India



**APPLICATION DEADLINE**

**April 19, 2020**



# ABOUT

## EPF - Ecole d'ingénieur-e-s

Founded in 1925 and located in Sceaux, Troyes and Montpellier, EPF is one of the best post-secondary School for general engineering sciences. In 1991, EPF - Graduate School of Engineering - acquired the status of Public Foundation and became co-educational in 1994. **EPF offers to its 2 400 students a year (including 15% of international students) a five-year post-secondary engineering sciences curriculum.** First three years consist in a general curriculum. In 4<sup>th</sup> year, students chose among 8 different majors: Aeronautics & Space, Structures & Materials, Engineering & Health, Engineering & Management, Engineering & Digital technologies, Energy & Environment, Buildings & Eco-cities and Data Engineering. **EPF's diplomas are accredited by the French Ministry of Higher Education and Research** and the "Commission des Titres d'Ingénieurs". EPF is a member of both the "Conférence des Grandes Ecoles" (CGE) and the "Union des Grandes Ecoles Indépendantes" (UGEI). EPF's curricula favors a faster integration into the job market with one of the highest starting salaries amongst post-secondary schools. **More than 12 000 graduated engineers from EPF** are spread out within the industry and service sectors.



## ESTP Paris

**Ecole Spéciale des Travaux Publics, du Bâtiment et de l'Industrie** was founded in 1891 as a private higher education institution and officially recognized by the French government in 1921. Its degrees are accredited by the Ministry of Higher Education & Research and the "Commission des Titres d'Ingénieurs" (CTI).

Several training programmes have been awarded quality labels, such as EUR-ACE & RICS.

In France, ESTP Paris counts over 2 800 students, a network of 45 000 Alumni and trains **the biggest students flow for the construction industry** and has made its reputation as THE "Grande Ecole" for professionals in this area: construction, planning & development, project and facilities management, sustainable buildings & infrastructures, design, rehabilitation, maintenance, real estate, topography-surveying, materials, energy efficiency, building information modelling, etc.

The main characteristics of ESTP Paris are its **close links to industry**, its strong **international relations** (88 partner universities in 40 countries), its **equal opportunities policy** and the emphasis put on **sustainable development**.

# CONTACT

## ESTP Paris

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Let's discover the previous experience on:  
*<http://bit.ly/SummerSchoolESTPParisEPF>*

