

Internship Offer

Date of the demand: 19th November 2018

Name of the applicant: Ombretta RUSSO

Company tutor (if different from the applicant) :

ENTREPRISE :

ADP Ingénierie is a subsidiary of Aéroports de Paris group, based close to Orly Airport. ADP Ingénierie is specialized in design and development of airports around the world.

NEED:

An airport Master Plan is the first step in the development of an airport. With a master plan, the airport owner and operator can estimate and anticipate the upcoming developments and investments to be planned for the short-term, medium-term and long-term. It is often the first step for the extension of passenger terminal buildings or infrastructures.

ADP Ingénierie works regularly on studies for the dimensioning and design of Passenger Terminal Buildings (PTBs) in France and abroad and wishes to improve its offer by partially automating the production and by implementing a methodology aimed to optimizing its activity. The final delivered product should meet the clients' expectations while positioning ADP Ingénierie as its privileged interlocutor for the next steps of their development.

In the framework of improving the methodologies to produce PTB design and dimensioning studies, the internship will concern the integration of simulation experience into the methodologies used for the sizing of the different facilities. It will consist in developing appropriated tools to develop such link.

The internship objectives will be the following:

- Understand the different functions of all processes available in a PTB, along with the passengers flows
- Analyze the existing methods used by ADPI to dimension PTB facilities, without the use of simulation
- Identify the key parameters used to dimension PTB facilities, that are sensitive to changes and could be confirmed through the use of dynamic simulation models
- Analyze old projects of ADP and ADPI to collect such parameters
- Reproduce such old studies into simplified simulation models
- Compare the results of the analytical methods with the ones given by simulation
- Identify any tendencies that could be found and establish links between analytical methods and simulation models
- Propose ameliorations of existing analytical tools to include such connections and considerations

The internship will also include the analysis of the tools already available in ADP Ingénierie related to this topic, estimating their relevance and adapting them to recurrent methodologies.

During his/her internship, the intern could work on ADP Ingénierie projects, in particular for PTB dimensioning studies, in order to apply the methodology portion of the work previously defined.

The intern will working directly with an engineer of the Strategic Planning Department and will have to interact with other departments of ADP Ingénierie. With this activity, the intern will be able to acquire knowledge and experience through the contact with a large range of experts in an international context.

Profile required:

Engineer (graduated or to be graduated)

Specific skills (mandatory):

- Knowledge of the airport field, and of the main functions available there
- Knowledge of PTB facilities and dimensioning methodologies

- Strong analytical capacities
- Professional proficiency in English

Additional skills (optional):

- Knowledge of simulation tools used for Passenger Terminal Buildings, such as CAST or ArcPORT
- VBA language command
- Knowledge of French language

Title of the internship :

Passenger Terminal Building dimensioning through simulation tools

Dates of the internship: as soon as possible

Length of the internship: 6 months or more

Targeted universities :

- ENAC (IENAC, Master IATOM, Advanced Masters in Airport Management, in Air Transport Management),
- RWTH AACHEN University (Transport Engineering and Mobility M.Sc., Aeronautical Engineering and Astronautics M.Sc.)
- Cranfield University (Air Transport Management MSc, Airport Planning and Management MSc)
- Escuela Técnica Superior de Ingeniería Aeronáutica y del Espacio, Madrid
- Escuela Técnica Superior De Ingeniería, Universidad de Sevilla (Ingeniería Aeronáutica)
- TU Delft (MSc Aerospace Engineering)

Names of potential candidates (if already identified):

Date and signature of the project manager:
19/11/2018

Ombretta RUSSO

Internship Offer

Date of the demand: 19th November 2018
Name of the applicant: Laura TAURAND
Company tutor (if different from the applicant):

ENTREPRISE :

ADP Ingénierie is a subsidiary of Aéroports de Paris group, based close to Orly Airport. ADP Ingénierie is specialized in design and development of airports around the world.

NEED:

An airport Master Plan is the first step in the development of an airport. With a master plan, the airport owner and operator can estimate and anticipate the upcoming developments and investments to be planned for the short-term, medium-term and long-term. It is often the first step for the extension of passenger terminal buildings or infrastructures.

ADP Ingénierie works regularly on Master Plans in France and abroad and wishes to improve its product by partial automation of the production and the implementation of a methodology optimizing its activity. The final delivered product should meet the clients' expectations while positioning ADP Ingénierie as its privileged interlocutor for the next steps of their development.

In the framework of improving the methodologies to produce master plans, the internship will concern the part of Traffic Forecast, mainly used for the sizing of the airport facilities. It will consist in developing appropriate tools to develop traffic forecast.

The internship objectives will be the following:

- Define the different possible types of traffic forecast (according to the required level of complexity),
- Create the traffic forecast models

The internship will also include the analysis of the tools already available in ADP Ingénierie for this topic, estimating their relevance and adapting them to recurrent methodologies.

During his/her internship, the intern could work on ADP Ingénierie projects, in particular for airports master plans, in order to apply the methodology portion of the work previously defined.

The intern will working directly with an engineer of the Strategic Planning Department and will have to interact with other departments of ADP Ingénierie. With this activity, the intern will be able to acquire knowledge and experience through the contact with a large range of experts in an international context.

Profile required:

Engineer (graduated or to be graduated)

Specific skills:

- Knowledge of the airport field, and of the main functions available there
- Knowledge of traffic studies forecast
- Strong analytical capacities
- VBA language command

- Professional proficiency in English

Additional skills (optional):

- Any previous experience of analytical models of traffic forecast
- Knowledge of French language

Title of the internship :
Traffic Forecast

Dates of the internship: as soon as possible

Length of the internship: 6 months or more

Targeted universities :

- ENAC (IENAC, Master IATOM, Advanced Masters in Airport Management, in Air Transport Management),
- RWTH AACHEN University (Transport Engineering and Mobility M.Sc., Aeronautical Engineering and Astronautics M.Sc.)
- Cranfield University (Air Transport Management MSc, Airport Planning and Management MSc)
- Escuela Técnica Superior de Ingeniería Aeronáutica y del Espacio, Madrid
- Escuela Técnica Superior De Ingeniería, Universidad de Sevilla (Ingeniería Aeronáutica)
- TU Delft (MSc Aerospace Engineering)

Names of potential candidates (if already identified):

Date and signature of the project manager:
19/11/2018

Laura TAURAND

Interesados, mandar CV a ope.aeroespacial@upm.es e indicar en cual de las dos prácticas estáis interesados.