

2025 International Workshop in France

- Developing Students Exchanges with Erasmus Scholarship Contract between UTokyo and ENPC - 18-27 February 2025

Kazunori Nakayama (Architecture), Yoshiaki Obinata (Mechano Informatics),
Elizabeth Khaung Nyoï (Technology Management for innovation), Hirotaka Okada (Aeronautics and Astronautics),
Kosuke Irie (Aeronautics and Astronautics), Yi GAO (Technology Management for Innovation),
Earnest Kota Carr (Interdisciplinary Information Studies), Jiaying Ren (Precision Engineering), Seiko Nagumo (GMSI Office),
Shohei Kawano (Mechanical Engineering), Yasuyuki Yokono (Institute for Innovation in International Engineering Education)

1. Introduction

The workshop took place from 18 to 27 February 2025 in Paris and Toulouse, France. The sites visited were the École Nationale des Ponts et Chaussées (ENPC), STATION F, ISAE-SUPAERO and AIRBUS. Eight students and three faculty staff from six departments of the School of engineering, the School of information science and technology and the School of Interdisciplinary Information Studies participated in the workshop. The participating students consisted of six WINGS-CFS and one WINGS-QSTEP, with five nationalities from Japan, two from China and one from Myanmar.

2. WS Details

2.1 STATION F

STATION F is the world's largest startup facility in Paris, divided into three zones: one for startups and the large companies that support them, such as Google, Microsoft and Meta, another for events, etc., and a third for food and beverage, including an Italian restaurant, open to everyone. The other zone is a food and beverage facility that can be used by anyone and includes an Italian restaurant. After a tour of the facilities, Ms. Anne Daire, ENPC Alumni Coordinator, gave an overview of STATION F and spoke to three startups from ENPC about their current activities. They were also introduced to the rigorous selection process for moving in and the mid-course review process that takes place during their two years of activity here. At the same time, a team from Hitotsubashi University visited to see the facility, which shows that this facility is attracting a lot of attention.



Fig. 1 Visit to STATION F

2.2 École Nationale des Ponts et Chaussées (ENPC)

ENPC (National School of Civil Engineering) is commonly known as École des Ponts ParisTech, which is combined with Ecole Polytechnique and Ecole Nationale Supérieure des Mines de Paris. ENPC was well understood during other visits, etc. After an introduction to ENPC and the UTokyo, eight UTokyo students presented their research, followed by an introduction by Prof. Amaury Hayat from the CERMICS Maths Lab and presentations by two students. In addition, three PhD students and a post-doc from the NAVIER Mechanical and Materials Lab introduced their research. One of them had received his PhD from the UTokyo Mechanical (Shirakashi Lab) and was a researcher who was well acquainted with the conference. In the afternoon, we visited 3D PRINTING and ROBOTICS, were introduced to the research at the Navier Lab and the joint research with the University of Tokyo in the field of Materials. Finally, the Joint Erasmus Research internship for PhD students was introduced and the active participation of the University of Tokyo was encouraged.

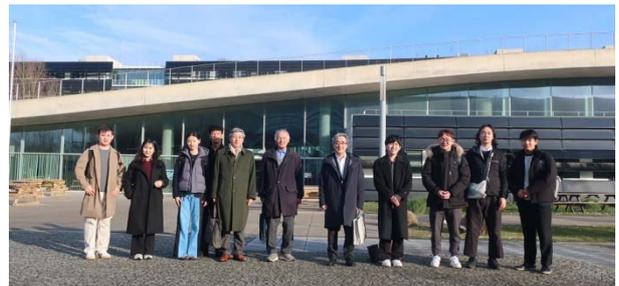


Fig. 2 Visit to ENPC



Fig. 3 Students research presentation at ENPC

We were also able to meet a civil engineering master's student in the UTokyo-ENPC double degree program who told me that she was focusing on taking courses in vectors, tensors, and mechanics, which she had not studied before, rather than on her research. The student was praised for her good French, and we found out that she was doing well.

2.3 ISAE-SUPAERO

From Paris, we traveled to Toulouse to visit ISAE-SUPAERO, the world's first graduate university specializing in aeronautics and astronautics, founded in 1909 and a European leader in the field of aeronautics and astronautics. We received an overview of ISAE-SUPAERO from correspondent Prof. Emmanuel Zenou. After an introduction of the UTokyo, research presentations were made by each other's students. On the SUPAERO side, there were post-doctoral researchers and Ph.D. students, including a Japanese researcher (graduated from Kyushu University). It was interesting to hear not only about their research, but also about their lives and why they chose to come to Europe for aerospace research. In the afternoon, we visited the flight simulator, aerospace vehicle design and control, and other facilities. Many of the start-ups from here have expanded into fields other than aerospace, such as snowfall management for ski resorts.

2.4 AIRBUS

First, we visited the Airbus Safety Promotion Center, where we were introduced to safety initiatives that learn from past accidents. Then we were introduced to Innovation X, Sustainable Aviation Ecosystem & Partnerships with Universities, Technology Roadmap, etc., interspersed with research presentations by students from UTokyo, and many people responded to their questions and comments. It was a very fruitful and productive event. Finally, we visited the final assembly plant for the latest aircraft, the A350. It was interesting to note that the fuselage, wings and other components were collected from all over Europe for this assembly, and that there were three Beluga aircraft (two XLs) at Toulouse airport, which are huge cargo planes that carry this work.

3. Summary

We were able to visit the two universities, a business incubator and a large company, Airbus, in France. In each of them we received very many kind and courteous responses from many people in each institution. We would like to thank everyone who helped us. We believe that the participating students also felt the connection between research and social implementation, as WINGS promotes international exchange and industrial cooperation. The visit to Airbus was planned for March 2020, but was canceled due to the Corona disaster, so we are happy that it has been more than five years since the visit was realized. However, it is also true that students who completed their bachelor's and master's degrees during this period have had fewer experiences abroad. With the goal of creating human resources who

can combine cutting-edge research with collaboration with others, we will continue to strive for an international WS that promotes the awareness and experience of being a graduate student at a research university in the world.



Fig. 4 Lab. tour at ENPC



Fig. 5 Visit to ISAE-SUPAERO



Fig. 6 Lab. tour at ISAE-SUPAERO



Fig.7 Visit to AIRBUS