Achievements and Prospects on NAIST’s International Collaborative Laboratories in France

Chikako DOI
Grants-in-Aid Section, Research Cooperative Division
Nara Institute of Science and Technology (NAIST)
Located in Kansai Science City
NAIST (NArA Institute of Science and Technology)

- Established in 1991 as a national university
- Composed solely of three graduate schools; Information Science (since 1991), Biological Science (since 1992), and Materials Science (since 1996).

<table>
<thead>
<tr>
<th>Students</th>
<th>1,045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>203</td>
</tr>
<tr>
<td>Staff</td>
<td>165</td>
</tr>
</tbody>
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As of May 1, 2018
NAIST as an international research university

**International students in NAIST** (as of May 1, 2018)

International students comprise about **24%**
Total: **252 students** from **31 countries/regions**

**Academic Exchange Agreement** (as of May 1, 2018)

**28 Countries/Regions**
**101 Institutions**
Global Research and Education

Top Global University Project
(10 years from 2014, 8M US$, supported by MEXT)

NAIST Global³

Global leaders in science and technology

Global standard graduate education

Global campus environment
Program for Promoting the Enhancement of Research Universities
(10 years from 2013, 23M US$, supported by MEXT)

Global Research and Education

http://www.naist.jp/
International Collaborative Laboratories (under the Program for Promoting the Enhancement of Research Universities): 2 labs in the foreign institutes and 3 labs in NAIST

Offices (under the Top Global University Project)
NAIST-CEMES International Collaborative Laboratory for Supraphotoactive Systems

Project Term: October, 2014-
Place: CEMES, Toulouse
Faculties:
Tsuyoshi KAWAI (NAIST)
Gwénaël Rapenne (CEMES)
Colin John Martin (NAIST)

Aims:
1. Development of supra-photoactive systems based on elaborative organized molecules with 2D and 1D ordering and explore advanced science for their photo-sensitivity of far-out-ranging usual systems.
2. Cultivate human resources for grovel scientific leaders of next generation.
3. Explore advanced technology based on the molecular science contributing future innovation
NAIST- École Polytechnique International Collaborative Laboratory for High Efficiency Proskite Solar Cell

**Project Term:** February 15, 2016-

**Place:** NAIST, Nara

**Faculties:**
- Pere Roca i Cabarrocas (EP)
- Yvan Bonnassieux (EP)
- Yukiharu URAOKA (NAIST)

**Aims:**
1. Development of high-efficiency Proskite-type solar cells in combination with printing skills of EP and vacuum processing skills of NAIST
2. Cultivate human resources for global scientific leaders of next generation.
3. Explore advanced technology based on thin-film materials contributing future innovation

École Polytechnique (EP)
Achievements in France

International Collaborative Laboratories with French Institutes

- NAIST-CEMES International Collaborative Laboratory
- NAIST-EP International Collaborative Laboratory

Achievements

- Joint Symposia
- New Scheme
  - Doctoral double degree Program with Université Paul Sabatier (UPS)
  - Cross Appointment System with UPS

無限の可能性、ここが最先端 －Outgrow your limits－
Joint Symposium

PEM2 Symposium (October 6-8, 2015 in UPS)

Prof. Jean-Pierre Sauvage won the Nobel Prize in Chemistry 2016

無限の可能性、ここが最先端  Outgrow your limits
Double Degree Program with UPS

NAIST established doctoral double degree programs with UPS for the purpose of

- Assessing the international dimension of the doctoral programs
- Promoting doctoral students mobility
- Developing scientific cooperation

e.g. The path of a doctoral student from NAIST sent to UPS

While staying in UPS, he/she will maintain the student status in NAIST

Separate doctoral degrees are issued from both institutions after finishing each course.
Dr. Jan Patrick Calupitan won the 2018 C'Nano Best Thesis Award in the "Interdisciplinary Research" category for his work by the French nanoscience research network C'Nano.

First PhD student of the doctoral double-degree program between NAIST and UPS. Currently a postdoctoral researcher at the Laboratory of Photophysics and Photochemistry of the supramolecular and macromolecular (PPSM) ENS Paris-Saclay.
Relationship with French Institutes

NAIST-École Polytechnique
International Collaborative Laboratory for High-Efficiency Perovskite Solar Cells
With École polytechnique
At NAIST (Feb. 2016-)

NAIST-CEMES International Collaborative Laboratory for Supraphotoactive Systems
With Université Paul Sabatier
At CEMES-CNRS (Oct. 2014-)

Joint Symposiums
New Scheme
• Doctoral double degree Program with UPS
• Cross Appointment System with UPS

• Université Lille-I
  Agreements on Academic Exchange: (Jun. 2016-)

• Sorbonne Université
  Agreements on Academic Exchange: (Sep. 2017-)

• Telecom Paris Tech
  Agreements on Academic Exchange: (Jun. 2017-)

• Université Paris Saclay
  Agreements on Academic Exchange: (Dec. 2017-)

• Université Paris-Est
  Marne-la-Vallée
  Agreements on Academic Exchange: (Apr. 2017-)

• École normale supérieure Paris-Saclay
  Agreements on Academic Exchange: (Mar. 2014-)

http://www.naist.jp/
Achievements and Prospects

We hope we make further international research and education network in Europe.