



## ADMISSION INFORMATION

### Admission requirements

- University graduation with GPA  $\geq 2.5/4.0$  in majors specified in admission announcement.
- English proficiency requirement:  
Level 3/6 (IELTS 4.5) in Vietnamese reference framework for foreign language or equivalent.

### Entrance exam

- **Open admission**
- **Entrance exam:** documents screening and interview

### Application documents

Visit the VJU website at [www.vju.vnu.edu.vn](http://www.vju.vnu.edu.vn) or [www.vju.ac.vn](http://www.vju.ac.vn) for admission guidelines and to download application documents.



Osaka University is ranked 8<sup>th</sup> among the most reputable and prestigious universities in Japan and 40<sup>th</sup> in Asia, according to the **Times Higher Education World University Rankings 2019**

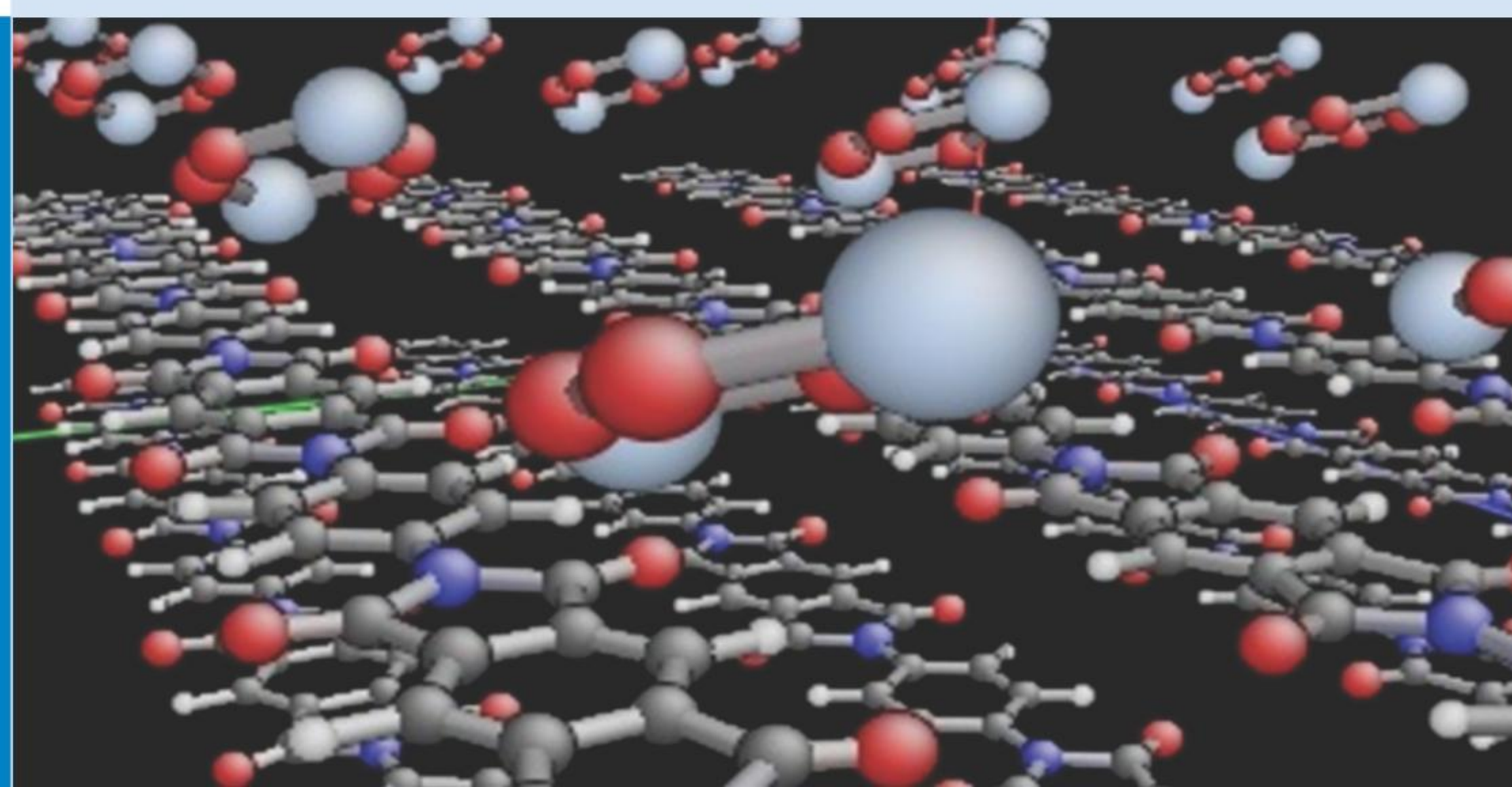


*Prof. Nguyen Hoang Luong,*  
Vietnam National University,  
Hanoi



*Prof. Yoji Shibutani,*  
Osaka University

*"Nanotechnology is the field that changes the world. The master's program in nanotechnology at VJU aims to cultivate human resources who are largely expected to develop and aggressively progress Vietnamese industry and academia for future national growth. Especially, this program puts much emphasis on the abilities of students to look at the nanoscopic view from the quantum-level, and through deep thought and the resolution of complex problems to make ceaseless breakthroughs in high technology. Also, the needs of the interdisciplinary nature of the course involving physics, chemistry and biological engineering are well met by the well-organized curriculum provided by international and professional faculty members. Students can get more than the double major necessary for producing future innovative ideas and hints. We welcome young persons who have the high degree of motivation and potential needed for the VJU nanotechnology program."*



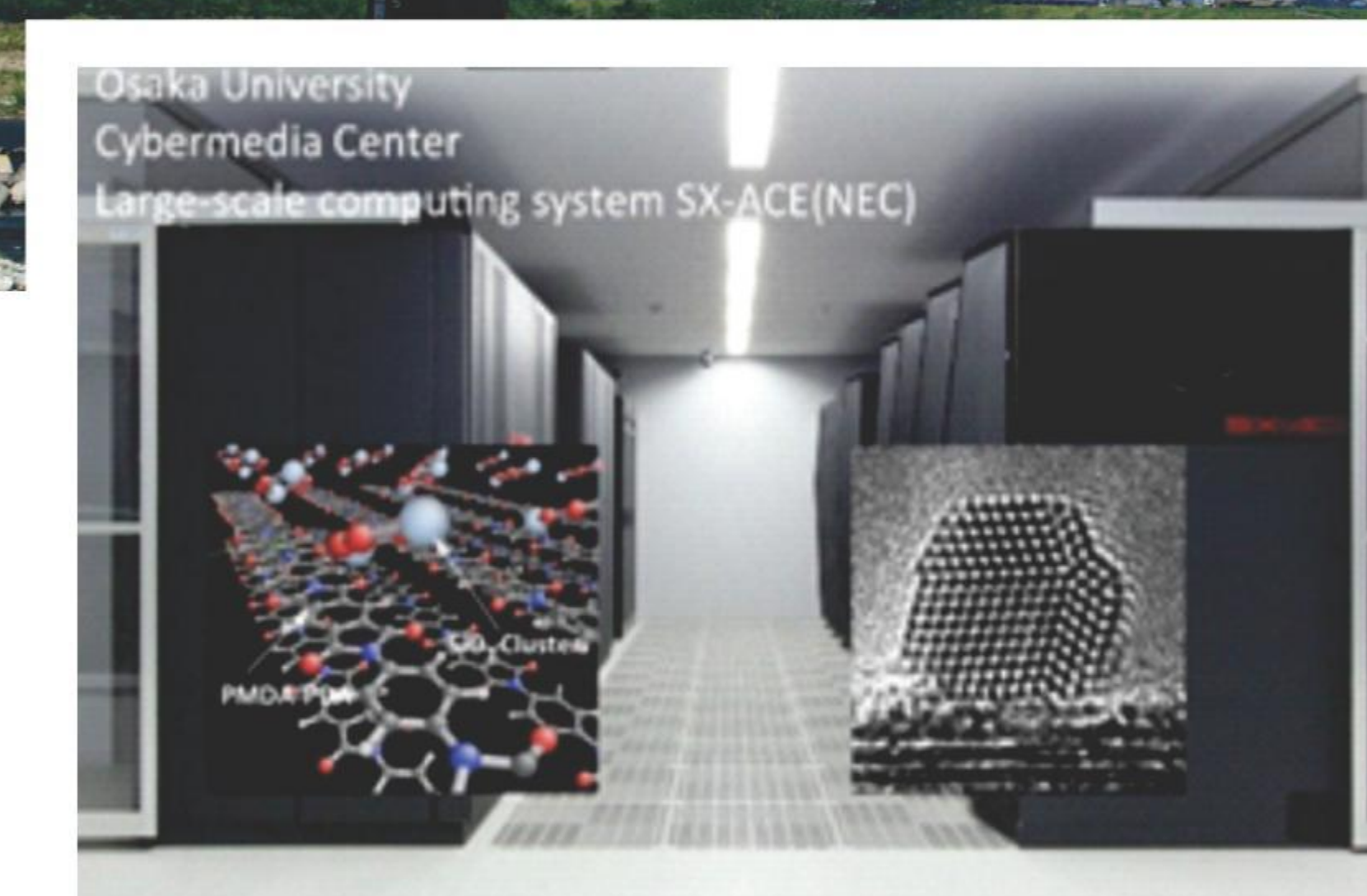
## CONTACT INFORMATION

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**Email:** [admission@vju.ac.vn](mailto:admission@vju.ac.vn)

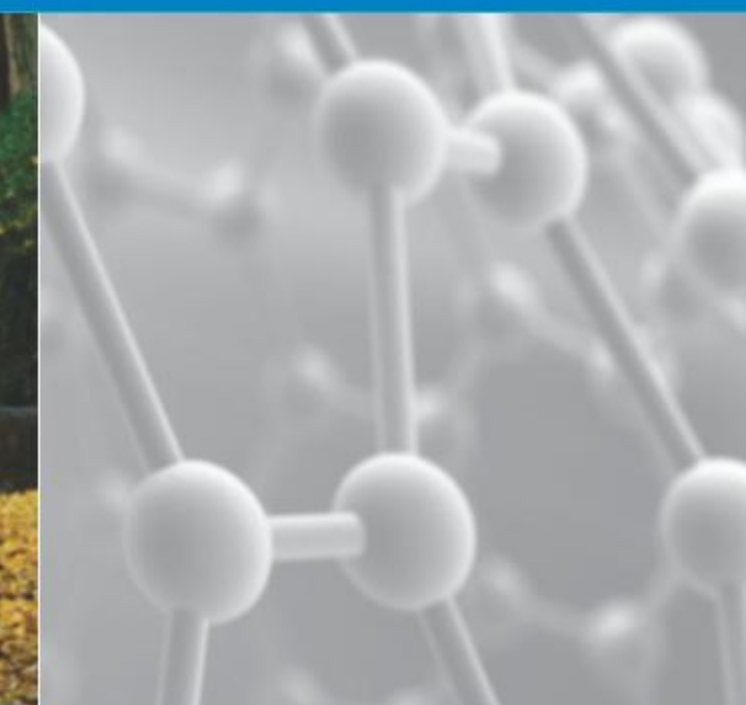


## MASTER'S PROGRAM IN NANOTECHNOLOGY

<http://mnt.vju.ac.vn>

The program is endorsed by:





## EDUCATIONAL OBJECTIVES

The master's program in Nanotechnology at Vietnam Japan University (VJU) has the following objectives:

- Equip students with advanced knowledge related to Nanotechnology in physics, chemistry and biotechnology;
- Equip students with research methods and skills to recognize, analyze and solve issues in Nanotechnology and then let them have the ability to apply this knowledge to fabricate and investigate nanoscale material and devices;
- Educate high quality scientific/technical staff working in fields belonging to or related to Nanotechnology.

After graduation, students will have the skills needed to become researchers, technicians and managers at enterprises working in the field of R&D in Nanotechnology. They will also be qualified to become academic researchers or join the teaching staff at universities and research institutes, as well as science and technology management staff in the public sector. Students could also pursue PhD degrees at leading universities in the world, especially in Japan.

## ADVANTAGES OF THE PROGRAM

- High quality, based on the curriculum of Osaka University, modified to meet the requirements of the Vietnam context;
- International academic environment with a minimum 50 percent of lecturers from Japan; advanced laboratories and modern facilities; lectures and high-level research guidance from professors of leading universities in Japan; participation in cutting-edge research projects studying nanoscale phenomena in various fields, such as physics, chemistry, biology, pharmacy environment, and energy with well-known professors;
- Substantially subsidized tuition fees; full scholarships for outstanding students based on performance;
- Cost of up to three-month internship in Japan fully covered for 50 percent of students;
- Modern knowledge and skills in a multicultural context, especially Japanese;
- Competency when applying for jobs at Vietnamese, Japanese enterprises and international organizations upon graduation.

## CURRICULUM

The curriculum consists of a total of 64 credits, including core courses of fundamental and specific knowledge, as well as elective courses in each.

COURSES	CREDITS
<b>General knowledge</b>	
Philosophy	3
Japanese Language	6
<b>Fundamental and Specialized courses</b>	
<b>Compulsory courses</b>	<b>16</b>
Basic Sustainability Science	3
Methodology and Informatics for Sustainable Science	3
Quantum Mechanics	3
Thermodynamics and Statistical Mechanics	2
Introduction to Nanoscience and Nanotechnology	3
Nanoscience and Nanotechnology Practices	2
<b>Elective courses</b>	<b>18/36</b>
Academic English	4
Computational Nanomaterials Science	3
Nanostructure Analysis	3
Micro and Nanofabrication	2
Nanostructured Materials	2
Nanocomposite and Polymer Materials	2
Advanced Inorganic Chemistry	2
Advanced Organic Chemistry	2
Bio-functional Chemistry	2
Advanced Solid State Physics	2
Nanomechanics	2
Semiconductor Nanomaterials and Nanodevices	2
Advanced Physical Chemistry	2
Biosensors and Biochips	2
Biochemical Engineering	2
Nanotech Seminar	2
<b>Internship</b>	<b>6</b>
<b>Master thesis</b>	<b>15</b>

## TEACHING LANGUAGES

English and Vietnamese

## DURATION AND LOCATION

**Duration:** 24 months of full-time study

**Location:** My Dinh Campus of Vietnam Japan University



## DEGREE AND QUALIFICATION

The degree of Master in Nanotechnology