

## Research Facilities at Ito Campus

Kyushu University has constructed a world-leading educational and research center, with over 300 researchers and graduate students and more than 13,000m<sup>2</sup> of research space at the Ito "Hydrogen Campus." Taking advantage of the 21<sup>st</sup> Century COE Program, this campus plays a central role in the university's "Energy Campus" concept. In addition, by collaborating with the Fukuoka Strategy Conference for Hydrogen Energy, an academic-industrial promotion organization with more than 500 member companies and businesses, we have created an environment where young researchers can closely exchange ideas and information with engineers in the industry. The campus is also a place where young researchers can experience various technological innovations, and where the uses of fuel cell technology can actually be demonstrated, making the best use of all the facilities on the campus, including the hydrogen station.



International Institute for Carbon-Neutral Energy Research (I<sup>2</sup>CNER)  
Next-Generation Fuel Cell Research Center



Intl. Res. Center for Hydrogen Energy  
(Residential Fuel cell system)



Future Energy Demonstration Facility



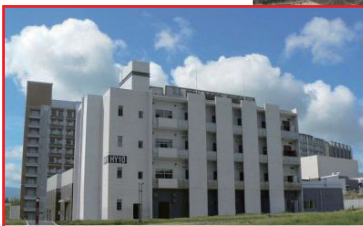
High-pressure H2 Lab.



High-pressure H2 Lab



Fuel cell laboratory



Research Center for Hydrogen Industrial Use and Storage (HYDROGENIUS)



Hydrogen station



Wind power generator

## Safety Measures

At Ito Campus, while we work on various research projects related to hydrogen energy, emphasis is given to the safety management for flammable hydrogen gas. Facilities so far installed include safety infrastructure with hydrogen supply and exhaust systems using sensors and alarms. We also have various safety measures against gas leakage, such as a mechanism to shut off the hydrogen gas supply at the outlet of the hydrogen storage cylinders, as well as a cut-off mechanism for the power supply to the experimental instruments. Our safety management system also integrates all possible safeguards in terms of software. We have a full-time safety manager in the Division for High-Pressure Gas Safety of the Office for the Promotion of Safety and Health, and qualified persons with long-term experience who are specialized in high-pressure gas production and maintenance are stationed 24 hours a day as safety technicians. As the education on safety is one of the important missions of the research center, students, faculty members and other university staffs who use the facilities of the International Research Center for Hydrogen Energy are obliged to attend annual training programs on hydrogen safety. Another tool used to create a safe environment for experiments is the "near-miss report," which must be submitted whenever a minor incident occurs. This information is shared by all parties concerned, and countermeasures are discussed at monthly meetings for safety and health.



Safety training course for researchers and students in advance of experimental works



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