

### ■ **Practical research on global project-based learning with industrial collaboration dealt with global real-world problems.**

Keywords: Higher education (Global education, Engineering Education, Project-based learning, Cooperative education)

This is to engage in the development, practice, and empirical research of multicultural and multi-disciplinary team-based, project-based learning programs with industry-academia-community collaboration. This pedagogical methodology deals with a real-world problem regarding technology in the global society.

From the 2020 academic year onward, due to the impact of COVID-19, practical research of collaborative online international learning (COIL) has been conducted. COIL is a pedagogical method of team-based, project-based learning for multicultural students. In COIL, the students are required to make a group proposal for problem-solving in the global society, taking into account cultural, societal, and ethical differences between countries.

The practical research has been conducted mainly through the G-DORM [Global Dormitory] project that is managed by the Faculty of Engineering, Niigata University.

Please refer to the website of G-DORM (<https://www.eng.niigata-u.ac.jp/~g-dorm/>).

### ■ **Practical Research on Sustainable Development (SD) and Capacity Building towards SD in Developing Countries and Disaster-Affected Areas.**

Keywords: Social Systems Engineering (Community Development, Disaster Risk Reduction and Recovery)

This is to engage in practical research on community development, disaster risk reduction (DRR), and recovery for sustainable development (SD) as well as on capacity building (for organizations and personnel) towards SD through industry-academia-community collaboration. The research targets grass-roots cases in Japan and abroad, including developing countries and disaster-affected areas. A new topic focusing in recent years is fundraising, which is essential for the management of community and nonprofit organizations. Any researches mentioned above are focused on collaboration (networking) with diverse entities, which is the key to SD.

#### To Motivated Students:

- All of the above cases become practical research (action research) that requires conducting surveys of participatory observation, questionnaires, or interviews and making a proposal for problem-solving or improvement through fieldwork or internships at a company, NPO/NGO, and so.
- Since there may be restrictions on practical research due to social conditions or the circumstances of the field site or internship site, the specific content will be decided through consultation.
- You can consult if there are any other related topics that you would like to work on. Please refer to the following URL about research achievements.  
[http://researchers.adm.niigata-u.ac.jp/html/200001183\\_en.html](http://researchers.adm.niigata-u.ac.jp/html/200001183_en.html)
- Students who are positive to make a presentation at academic conferences, especially international academic conferences are welcomed.