Diversity Research Environment (Driving Type)

2019 MEXT (Ministry of Education, Culture, Sports, Science and Technology) Initiative for the Implementation of the

Develop and Assist Female

for Crafts and Manufacturing.

Engineering Researchers

in Local Cities Famous





To Ripple through the Local Communities and Industries in Collaboration

Diversify education, study, and technology development in the industrial and engineering fields by female researchers and technical supporters

Increase the number of participating

institutions and companies

Industry-academia-government-financial

institution partnerships

CTRUST

Characteristics of Local Industries / Facts and Challenges

Total Production

Value of

Local Manufacturing

(JPY 6,396 billion) industry

Education and study in Engineering

- Produce more female engineers and increase the number of female researchers
- Provide role models for female researchers
- Industry-university joint research Continuing education for women working in local companies
- ■Workshops on diversity

Technology development **Diversity Consortium** in the industrial field (temporary name)

- Sustainable development of local cities where manufacturing is thriving. Disseminate information on this as a role model.
- Energize local industries through diversification Increase the number of female
- Encourage female researchers and engineers to play active roles
- Create role models Improve the image of industrial workplaces

Participation

Cooperative organizations (private companies) Three related institutions

- Hokuetsu Corporation
- Clean Technology Co., Ltd.
- Sorimachi Co., Ltd.
- Sorimachi Giken Co., Ltd.

Affiliate institutions

- Nagaoka Institute of Design
- Niigata Electronic Industries Association
- Japan Finance Corporation, Nagaoka branch Nagaoka City

"Nagaoka", a Traditional Industrial City

- Nagaoka is one of the most competitive industrial cities located along the coast of the Sea of Japan.
- It is an industrial cluster city made up of various industries, led by the iron and casting
- Its machine and machining industries possess the most advanced technology in Japan.
- Many traditional manufacturing businesses with superior technology operate in the area.
- ●97% of manufacturing businesses are small businesses (less than 100 employees) 20%
 - About 20% of employees in the city are engaged in manufacturing-related jobs. One in three workers is female, but the percentage of female managers is one of the lowest in national rankings (Manufacturing Industry: 7%, reported by Teikoku Data
 - There are almost no female personnel in research and development jobs in machine, metal, and electronics parts industries

All based on Nagaoka Statistical Yearbook 2018

Nagaoka University of Technology

Objectives (Mid-term Objectives / Plans)

- ◆To recruit female faculty members and promote
- To improve the working environment, making it easier to maintain healthy work-life balance ⇒Percentage of Female Faculty Members:

Percentage of Female Managers: Approximately 20%

Action Plans (Basic Plans for Gender Equal Society)

- ◆To increase the number of female engineers and
- ◆To promote gender equality in student life. ◆To improve the working environment for faculty
- ◆To make the above items known and apparent.

published by

NIT(KOSEN), Nagaoka College

Objectives Mid-term Objectives / Plans, Actions to take)

- ◆To actively recruit and promote female faculty members. ♦To improve a working environment which makes it easier for female faculty members to perform their duties.
- ◆To provide appropriate information about gender
- To improve an environment which educates faculty members on better understanding the concept of

Action Plans (for Gender Equal Society)

- ◆To promote gender equality in higher education. ◆To improve an ideal working environment for gender
- ◆To better educate our college faculty members about
- ◆To manage our college plans based on the idea of

eTRUST Co...ltd.

Objectives

To create an ideal working environment for all employees which allows them to manage their work and housework while also performing to their

Action Plans

- ◆To maintain employees' healthy life-work balance, to improve their working environment, and to facilitate their best performance
- ◆To recruit and increase the number of female researchers. ♦To provide OJT with a senior worker whose age is
- close to that of a new employee. ◆To train female researchers to be more competitive

and survive in their field, based on behavioral studies.

The Section for Research Environment Diversity(Trilateral Secretariat Office), Nagaoka University of Technology Nagaoka University of





Technology

DIVERSITY

Develop and Assist Female Engineering Researchers in Local Cities Famous for Crafts and Manufacturing.

Our Project

This program was selected as one of the 2019 MEXT Initiatives for the Implementation of the Diversity Research Environment (Driving Type). Female researchers and engineers are supported by the Japanese government.

It has four main objectives: (1) To improve working environments, taking into account female researchers' life events and work-life balance, (2) to train them to make their knowledge and skills more competitive, (3) to actively recruit them and support their comeback in the cases that they have left their research unfinished or quit their jobs because of their life events, and (4) to actively promote female researchers in institutions.

"Driving Type" means a project in which post-secondary and research institutions collaborate with business counterparts to facilitate female researchers' career success in their fields or regions, whether their institutions are involved in the project or not.

To execute "Project to Develop and Assist Female Engineering Researchers in Local Cities Famous for Crafts and Manufacturing", Nagaoka University of Technology is playing a leading role in this effort in collaboration with National Institute of Technology (KOSEN), Nagaoka College and eTRUST Co., LTD. Through the corroboration, we will set up support systems for female researchers and educate all people involved in the project.

We aim to create an ideal working environment where people with diverse backgrounds can study and work together.

Commitment of Three Related Institutions toward Diversity Initiatives

Five principles

Recruit more female researchers and actively appoint them to managerial positions

- Proactively recruit female professors and young female researchers
- Open recruitment exclusively for female researchers who wish to return to their hometown or to move to other nearby cities in order to seek employment
- Recruitment under the Cross-Appointment System among the national institutes of technology and companies, and through the global industrial-academia collaboration



Exchange among female researchers by using the GIGAKU (science and technology) Techno Park

Raise organization-wide gender equality consciousness

- Launch a Diversity Promotion Office and appoint a person in charge at each institution
- Hold lectures on gender equality in collaboration with the related and affiliated institutions
- Raise awareness in regards to promoting diversity and gender equality in the capacity of a hub university under the UN Academic Impact project and MEXT super global university



United Nations Academic Impact Hub

Provide study and career support for female researchers

- Provide study support for outstanding female researchers
- Provide support for joint research led by female researchers
- Provide support for joint research which will lead to creating female leaders, technological innovation in the industry, and the revitalization of local communities
- Hold seminars on fundraising for female researchers
- Hold seminars in pursuit of attracting female students to enroll into doctoral courses
- Engineering ethics education and enlightenment



Life event support

- Provide study support for researchers who are caring for their small children or aging parents
- Provide Study support for researchers who return to work
- Provide assistance for researchers who use child-care services for their sick children
- Start in-house nurseries
- Establish a mentoring system in order to provide work-life balance and career support, Launch an advising room and appoint concierges
- Develop a list of alternative faculty members



Provide support for female researchers in collaboration with local communities and

- Facilitate networking between female researchers, local communities, and companies in collaboration with the related and affiliate institutions
- Examine a concept of a Diversity Consortium (temporary name) for the purpose of assisting female researchers and engineers in collaboration with local industrial associations



Establish networks betwee female researchers and companies

Increase the percentage of women employed

Realize diversity

Enl

Enhance research capabilities

Improve the research environment

Regional partnership

Introduction of a Support System

1 Financial support for joint research led by female researchers working at the three related institutions.

Conditions: Joint research in which a woman belonging to each of the three related institutions is responsible as a principal researcher.

Joint research conducted by members from at least two related institutions

Researchers of other universities and companies are allowed to join.

Men are also allowed to join the joint research.

2 Assigning research supporters for researchers who are caring for their small children or aging parents.

Targets: Researchers who are pregnant, have children in the 6th grade or under, or are caring for relatives (regardless whether they are living together or separately) who are certified as being in need of care by the municipal government

Contents : Assign research supporters who help do tests and data analysis

Application : On regular basis (about twice a year) and possible to apply for anytime, in case of emergency.

Extending research grants for researchers who are returning to work.

Targets: Researchers who terminated their research activities for three months or more in total. Men are also eligible. Contents: Start-up research grants, assistance for attending conferences and paper submission, and so on.

4 Usage fee subsidy system holiday and night-time childcare, programs for both sick and convalescent children, and after-school programs.

Targets: Female and male researchers who can neither take care of their children at home by themselves nor ask their spouses for help because they cannot leave their work or their partners have to look after other family members.

Contents : Partial subsidy for their childcare fee is provided when an eligible person uses one of the childcare services above.

5 Internship programs for female researchers.

Targets: Female researchers who are associate professors or in an equivalent or lower position.

Contents: Given an opportunity to work with an ideal female senior manager in Japan based on her research field or job title, one can learn management skills through on-site observation, keeping notes and records, self-reflection, and so on.

6 Mentoring system for female researchers.

Targets: Female associate professors or those who are in lower positions.

Contents: enior researchers both inside and outside of the affiliated institutions take the role of a mentor and consult one another to improve the female researchers' research conduct and other work-related activities (e.g., self-improvement as a researcher, working environment adjustment, work-life balance improvement, continuation of own research activities)

☑ Holding lectures for female students and campus tours exclusively aimed towards prospective female faculty members.

Targets : Students

Contents: To regularly set up lectures by guest female researchers as role models, tea parties with alumnae, and/or campus tours for prospective female faculty members.

For more details on the contents and conditions of this support, please contact:

- Section for Research Environment Diversity, Nagaoka University of Technology: Diversity TEL: +81-258-47-9911
- General Affairs Department, National Institute of Technology(KOSEN), Nagaoka College TEL: +81-258-34-9313
- · Administration Department, eTRUST Co., Ltd.

TEL: +81-258-21-2500

Launch an advising room jointly run by three related institutions

When researchers, faculty members, and employees face life events (e. g., deliveries, child-rearing, elderly care, etc.), we sincerely help them solve their problems with managing work and housework, as well as maintaining a healthy life-work balance. With the permission from a person asking us for a help, it is possible for us to introduce her / him to organizations or groups specialized in their problems both inside and outside of her /his institution.

Venue : Room 707, 7F, Synthetic Research Building, Nagaoka University of Technology (Available as a lounge)
Contact : Email : wlb_soudan@vos.nagaokaut.ac.jp TEL : 0258-47-9911

