

TRYT and Kyushu Institute of Technology initiate joint research to improve the retention rate of nursing care workers

TRYT Inc. (Head Office: Osaka City, Osaka Prefecture, Tokyo Head Office: Shinagawa-ku, Tokyo, CEO: Hidetaka Sasai, hereinafter as TRYT), which oversees a group of a leading provider of placement and temporary staffing services in the medical, welfare, and childcare industries, and the Kyushu Institute of Technology (denoted hereinafter as Kyutech, Main Campus: Kitakyushu, Fukuoka Prefecture, President: Yasunori Mitani), have started joint research to improve the retention rate of nursing care workers. This research seeks to identify ways to address and improve working conditions in the nursing care industry and reduce the turnover rate among nursing care workers.

◆The context for this research

The labor shortage in the nursing care industry is a serious social issue as Japan's birthrate declines and its population ages. There will be an estimated shortage of approximately 690,000 nursing care workers in 2040, compared to the 2.8 million*¹ needed by that year. The turnover rate in the field of nursing care was 14.1%*² in 2021. Although that figure has been improving over the past few years, 63.0%*² of nursing care workers cited a shortage of personnel in care settings. In addition, the average length of employment in industries overall is 12.3 years*³, but the average length of employment in medical care and welfare, which includes nursing care, is 9.0 years*³. Therefore, the retention rate in medical care, welfare and childcare is expected to improve compared to that in industries overall.

*¹Ministry of Health, Labor, and Welfare: Required Number of Nursing Care Workers based on the 8th Long-term Care Program

*²Care Work Foundation: Results of the 2021 Survey on Nursing Care Work

*³Ministry of Health, Labor, and Welfare: 2021 Basic Statistical Survey on the Wage Structure

◆An overview of the joint research



The research will quantify the experience of working in the nursing care industry as a whole by identifying, analyzing, and verifying the work experiences of nursing care workers in care settings and the potential factors influencing those experiences. In addition, the research seeks to devise type-specific solutions to improve the retention rate by classifying the traits of workers, such as when their productivity improves and what they find rewarding. This research will be expedited by combining sensor-based behavioral recognition technology developed by Professor Sozo Inoue of Kyutech's Graduate School of Life Science and Systems Engineering and his ability to perform a job analysis of nursing care work with the wealth of information and knowledge on the needs of medical, nursing care, and welfare workers that the TRYT Group has accumulated.

◆Increasing happiness among the people working in the nursing care industry



By analyzing the problems and rewards of working in the nursing care industry, we hope to discover major clues to improving the job satisfaction and retention rates of these workers. We would like to continue to help increase happiness among people working in health care and welfare through collaboration with research institutes, such as those at universities.


Hidetaka Sasai
CEO
TRYT Inc.

◆Helping to reduce the risk of employee turnover and to alleviate personnel shortages



Sozo Inoue
Head, Care XDX Center
Professor, Graduate School of Life Science
and Systems Engineering,
Kyushu Institute of Technology

Various factors such as the tasks involved, working conditions, personalities, and interpersonal relationships are related to personnel “retention.” By ascertaining these factors, we hope to identify ways to improve working conditions in nursing care facilities and reduce the risk of employee turnover.



[Sozolab Inoue Laboratory | Facebook](#)
We research behavioral recognition using smartphones and its application to medical and nursing care at the Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology. We are implementing national projects and joint research with companies.

◆Sozo Inoue’s biography

- Mar 2002 Completed the doctoral program (PhD in Engineering) at the Graduate School of Information Science and Electrical Engineering, Kyushu University
- Mar 2002 Research Assistant, Graduate School of Information Science and Electrical Engineering, Kyushu University and later Associate Professor, Kyushu University Library
- May 2009 Associate Professor, Graduate School of Engineering, Kyushu Institute of Technology
- Apr 2017 Visiting Researcher, RIKEN Center for Advanced Intelligence Projects
- May 2020 Professor, Department of Human Intelligence Systems, Graduate School of Information Science and System Engineering, Kyushu Institute of Technology (current position)
- June 2020 Director, Information Processing Society of Japan

[Researcher details: Sozo Inoue \(kyutech.ac.jp\)](#)

The status and results of this research will be disclosed as the occasion arises. Through placement and temporary staffing services, TRYT will continue to help create a dynamic society of the future in which as many people as possible can take pride in their work and help tackle social problems such as the shortage of personnel in the areas of medicine and welfare.

[Kyushu Institute of Technology]

Kyushu Institute of Technology (Kyutech) was established in 1909 as a private institution named “Meiji College of Technology with its founding spirit “Educate gentlemen with excellent technology proficiency” to produce talented engineers for industrial development in Japan.

Since established, Kyutech has been producing many engineers with aspiration and passion to provide solutions to the issues in the diverse society with innovation in science and technology.

Kyutech has totally around 5,600 students in 3 campuses (2 undergraduate schools and 3 graduate schools) in Fukuoka prefecture, and recently has high recognition and reputation for space engineering development (the world no.1 academic small satellite operator for 4 consecutive years), robotics (winning world championship of autonomous robot competitions in many years), and smart lifecare with IoT (selected as one of the laboratories for the national project of Japan).

<https://www.kyutech.ac.jp/>