

# Human-centric Digital Twins Services Utilizing AI, Big Data and IoT

## Digital Olfactory Contents Using Odor Reproduction Techniques

**Project Leader : Takamichi Nakamoto, Professor, Institute of Integrated Research, Institute of Science Tokyo**

**R&D Team : Tokyo University of Agriculture and Technology**  
Collaborating Organization: ONO-DENKI MFG., INC.



### Summary :

Human-centric digital olfactory twins service is important to realize the next generation information society. We aim to create scented cyber space based on odor reproduction technique using a small number of odor components.

In this project, odor components to cover wide range of odor is explored, followed by the development of olfactory display to present scents by blending the odor components instantaneously. Then, we focus on the following contents.

- Scented contents for advertisement/online shopping
- Disaster and cooking simulators with odors
- Scented games for medical care and rehabilitation
- Content to reproduce scents at remote site.

### Advertisement • Online shopping



### Simulator



### Disaster simulator



### Game of localizing odor source



### Odor reproduction at remote site

### Medical care • Rehabilitation

## Digital Olfactory Contents