

IOWN INTEGRAL

NTT R&D FORUM 2024

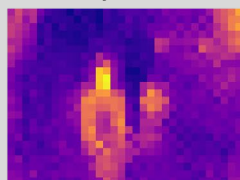
BUSINESS

β 03-05

Tracking people indoors
using low-resolution thermal sensor
This technology enables crime prevention and
monitoring in spaces where privacy is a concern
Well-being, Human Capital Management # Customer Experience Value Creation

Model 作成したモデルのイメージ

入力(Input):
ヒートマップ
Heatmap

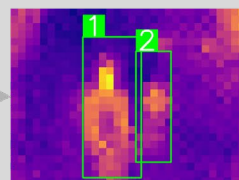


人物位置測位機械学習モデル
Machine learning model
for detecting the location of people

検出モデル
Detection
model

追跡モデル
Tracking
model

出力(Output):
人物の位置とID
Each person's location

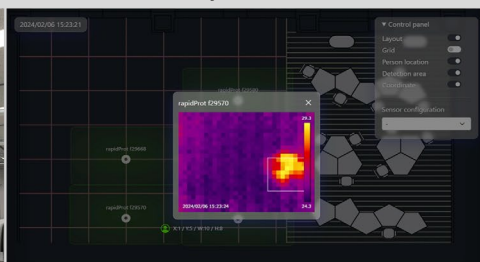


(参考)RGB画像
(Reference) RGB image

人物同士が重なり合うときもそれぞれの人物を
高精度に検出し続ける
Detects each person with high performance
even if the persons overlap each other

Demo 技術検証様子

人物位置可視化の技術検証 Technical verification of person location



///Technical Issue

There are strong privacy concerns with cameras equipped with AI functions, and no technology has been established to enable high-performance person sensing in private spaces.

///Research Goal

This technology enables monitoring spaces where privacy is a strong concern, where surveillance cameras could not be placed in the past.

---Technology

Combining object detection and tracking models and applying them to low-resolution thermal sensor images enables tracking a person's location while considering privacy.

---Novelty

The world's first technology that uses a low-resolution thermal sensor (24x32 pixel) to track each person with high performance even when they overlap with each other.

---Applicable Business

Security industry, housing industry, hotel industry, nursing care industry

- Monitoring and abnormality detection of family members living far away (bedridden/fallen/suspicious person detection)
- Visualization of usage of changing rooms, etc.
- Automatic control of lights and air conditioners according to the location of people

We aim for field verification in FY2024 and commercial deployment in FY2025.

Exhibitors=NTT DOCOMO, Inc Related URL=[Lifestyle co-creation lab](#) (2024/03)/[Press Release](#) (2024/10)

[Contact URL](#) Outside Partner=Urasoe City