

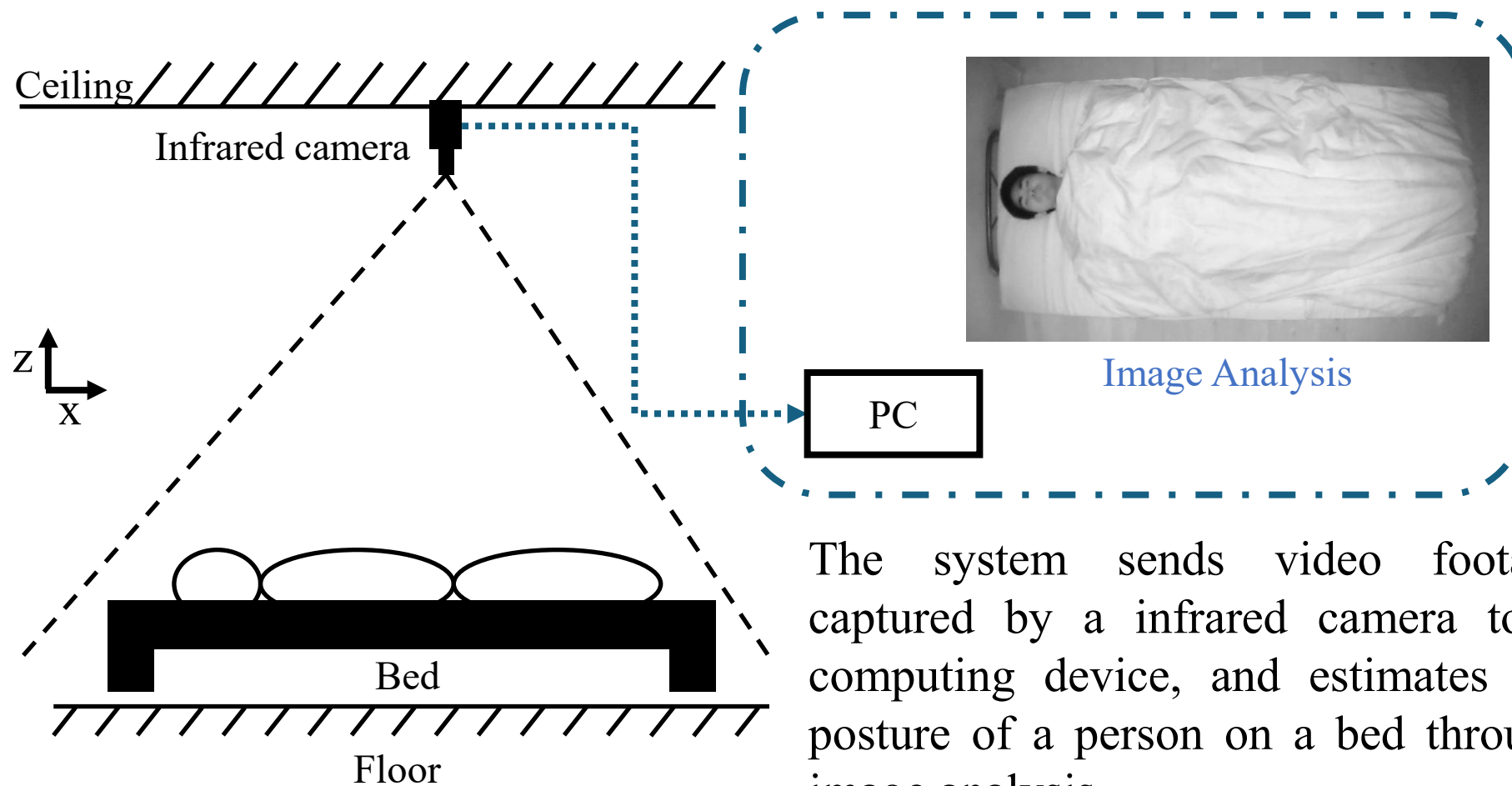


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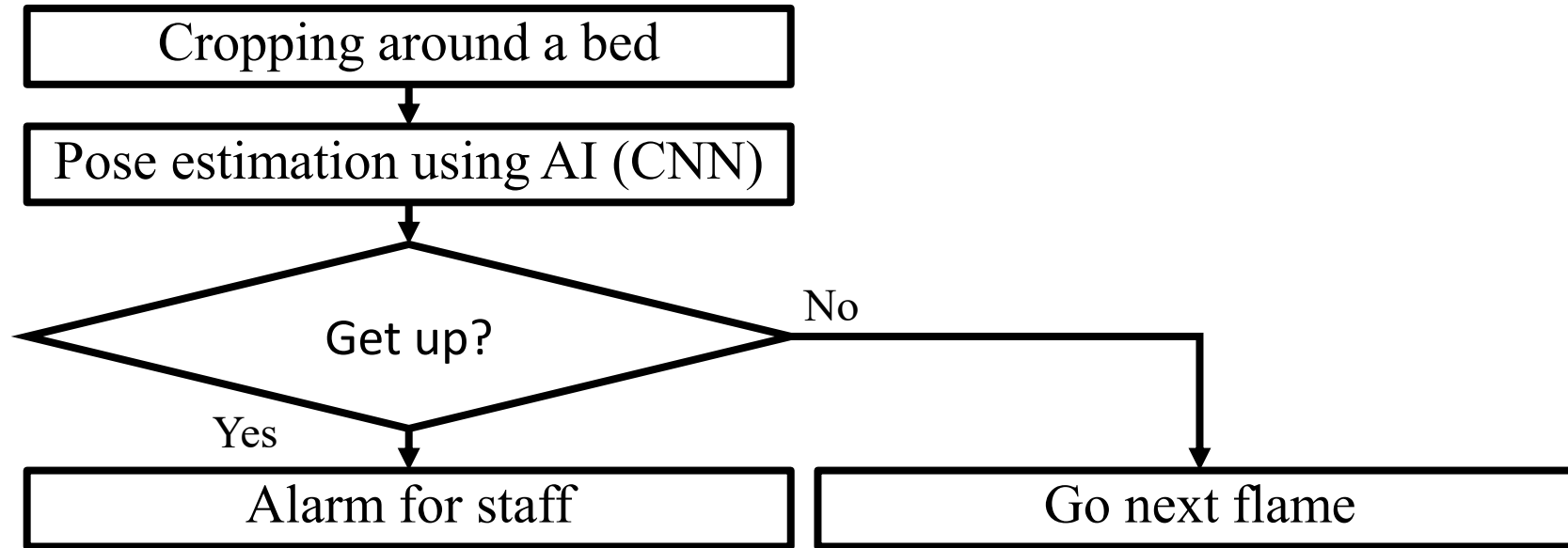
Wake-up Detection System Using Deep Learning

提案システムの概要



The system sends video footage captured by a infrared camera to a computing device, and estimates the posture of a person on a bed through image analysis.

System procedure of a flame



By estimating posture, we can complement the possibility of getting up. The system's gradual alarm system makes it easier for staff to respond.

Ex.

The first alarm is when subject change their postuer too much. Last alarm is when they are sitting down bed side.

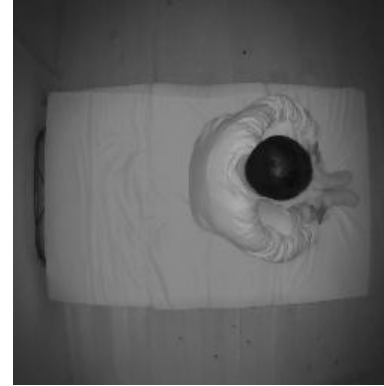
Four postures to distinguish



Supine
position



Lateral
position



Long sitting
position



Edge sitting
position

Each posture was trained using the same number of images. In this training, each posture was based on a steady state.

Demo



The frame color indicates the estimation result.

Blue: Supine position

Green: Lateral position

Yellow: Long sitting position

Red: Edge sitting position

The estimated probability can be estimated with almost 100% accuracy if the camera installation locations are the same.