

# Assessment tool for circadian rhythm sleep-wake disorder

Estimate sleep and wake patterns from SNS data, no need for special device

## Overview

To diagnose circadian rhythm sleep-wake disorders, sleep diaries and actigraphy are used, but the need to keep records for a long period of time and the cost are a burden on users. In addition, due to low awareness of the disease, few people visit a medical institution to take proper treatments of their symptoms.

According to the present invention, symptoms that may be circadian rhythm sleep-wake disorders can be identified based on the daily operation history of home appliances and smartphone applications, creating an opportunity for an early visit to a medical institution to get an early treatment.

## Possible Applications

- Estimation and prediction tool of sleep pattern of user from history of use time and frequency of SNS application, etc.
- Diagnostic support tool for circadian rhythm disorder
- Monitoring method before and after sleep improvement

## IP Data

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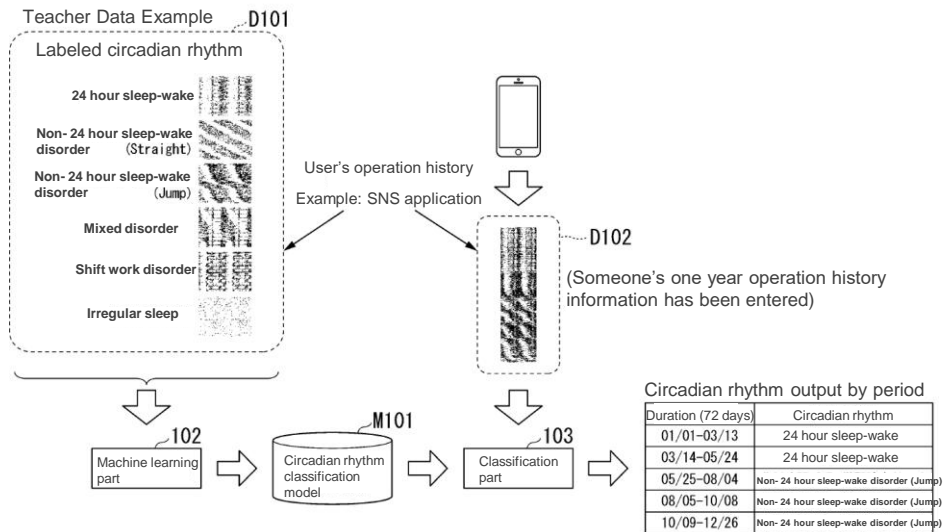
## What is circadian rhythm sleep-wake disorder?

It is one kind of the sleep disorders, which can be classified into six categories.

Classification	Description
Delayed sleep-wake phase disorder	Extremely late to sleep and late to wake up
Advanced sleep-wake phase disorder	Extremely early to sleep and early to wake up
Irregular sleep-wake rhythm disorder	Sleep and wakefulness appear irregularly
Non-24 hour sleep-wake rhythm disorder	Severe difficulty falling asleep and waking up at a certain time and a delay of 30 to 60 minutes each day in the time of sleep
Shift work disorder	Sleeplessness or drowsiness caused by working when people normally sleep
Jet lag disorder	Traveling abroad (time zone changes) causes insomnia and drowsiness because body rhythms do not match the light and dark cycles

This system covers circadian rhythm sleep-wake disorders excluding jet lag disorders.

## System for automatically outputting analysis results of circadian rhythm



## Related Works

## Contact

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