SEZAKI LAB.

[Urban Sensing and Ubiquitous Computing]

Department of Informatics and Electronics

Information and Communication Engineering

Information and Communication Engineering: GSIST,
Socio-Cultural Environmental Studies: GSFS
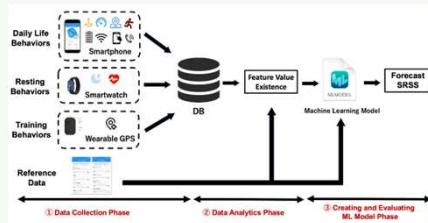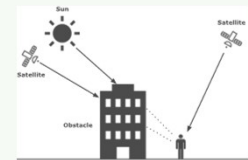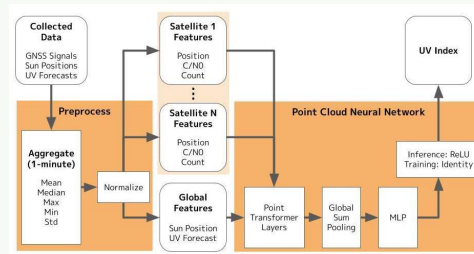
https://www.mcl.iis.u-tokyo.ac.jp

Research topics:
1. to consider the support of the creative social activities, which utilize networks, and the creation of new applications
2. to operate the network element, system technology and system development of various applications

Behavioral Change & Well-being

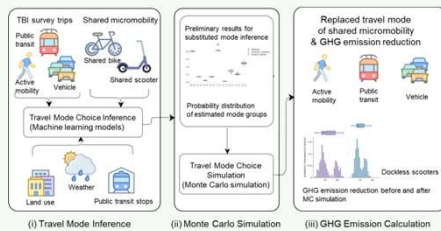**Sensing for detecting stress and recovery state of student-athletes**

UV index estimation leveraging GNSS signals available on smartphones and obstacle distribution around the user

Societal Transformation

Spatial Analytics

Estimation of greenhouse gas emission reduction by shared micromobility system

Mobile & Wearable Sensing

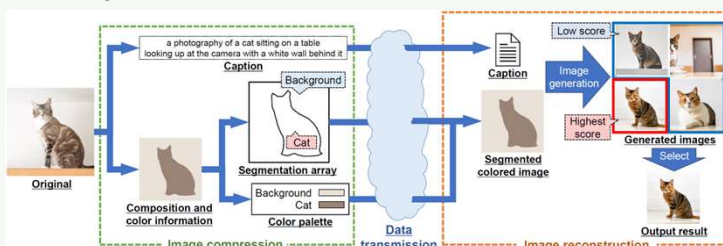**Detecting childcare activities using wearable devices**

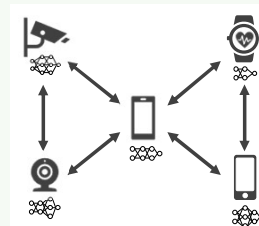**Detecting postpartum depression using indoor environmental sensors**

Analysis & Estimation

Wireless Sensor Networks & Decentralized Learning

Semantic communication leveraging generative AI for capacity-limited networks

Privacy-protecting distributed machine learning for wearable and IoT devices

Fundamental Technology

Institute of Industrial Science, The University of Tokyo