MAGORI LAB.
[Improve building comfort and optimize creation/saving/storage energy]

Department of Human and Social Systems

Energy Demand Management Engineering

http://www.magorilab.iis.u-tokyo.ac.jp/

Aim of research and development
- A comfortable and prosperous life and an active space for everyone
- A place where everyone can work happily
- An environment in which everyone can feel richness by making the most of their relationships
- An environment where everyone can make a living
- Space and functions that enable everyone to stay healthy

Research contents
- High functionality and long life of building space and functions
- Energy creation/energy conservation/energy storage for buildings
- Comfortable, safe and secure space and functions
- Healthy space/function
- Utilize data accumulated by various sensors

Research contents and development research
- Sustainable design
- Buildings and services that make users comfortable
- Environment-friendly and energy-efficient technology
- Technology that analyzes building and operation data, reads issues, and utilizes unused data
- Automatically determine the issues read from the data. Technology that controls and optimizes the environment.
- Technology that automatically obtains optimal information from various sensors and their combinations.
- A mechanism that allows buildings to select necessary information and mutually use it, without involving people.
- A mechanism to utilize buildings and related information for new services through cloud and edge computing.
- A mechanism to open and integrate specialized technology, various dedicated protocols, and non-generic functions to utilize for buildings and users.
- Integration of elemental technology for environmental construction
- Optimized control for building energy demand

R & D Study case:
Sensors and IOT devices are installed in multiple buildings, operation information is automatically acquired, and the AI controller and cloud are unattended to control and optimize energy. Realizes continuous comfort and energy saving.

Cloud service with AI

Creating sustainable new value through mutual collaboration of expertise in different fields

Research and develop core technologies related to products and services that will create value required by society in the future

Utilization of spatial functions

Economic performance and energy saving?

Useful function

Controller with AI

Useful function

Living healthy and working healthy

Healing and rest

CO2 reduction, environmental consideration

Comfortable workplace

Nice living environment

Controller with AI

Cloud service with AI