
Linkage Between Information Related to a Person's Location to a BEMS Application with an Analysis of the Operation Results

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Generally, energy conservation for the university campus is very difficult because of complicated conditions such as the unpredictable usage of rooms that results in an uncontrollable situation. Students move freely in the campus, and their movements are difficult to control. Therefore, optimization of HVAC and lighting usage is one of the big issues for the management of a university.

In this study, the location information in buildings or rooms for energy conservation by a BEMS (Building and Energy Management System) was utilized. The location information taken by an ID card is used for personal identification as well as classroom attendance or security. By focusing on this function, a linkage system between the location information and the BEMS was developed and evaluated. For the future design of energy efficient buildings, the relationship between the energy and the population in the buildings is shown. Hopefully, this result would be applied to other buildings for the active usage of energy savings with a BEMS.