



Indoor Environment and Human Health

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Research Fields Architectural environment engineering

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● Research Outline

Health effects of indoor environment

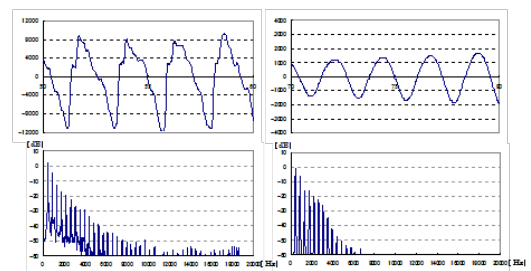
It was said that indoor temperature and humidity have impacts on the allergic symptoms and influenza infections. But it was hard to evaluate the healthy and pleasant environment. In order to solve these problems, we are considering solving techniques by actual measurement and questionnaire survey. Currently, we mainly investigate the environment of kindergartens and nursery schools. We have also examined the temperature and humidity environment to prevent drying of the skin.



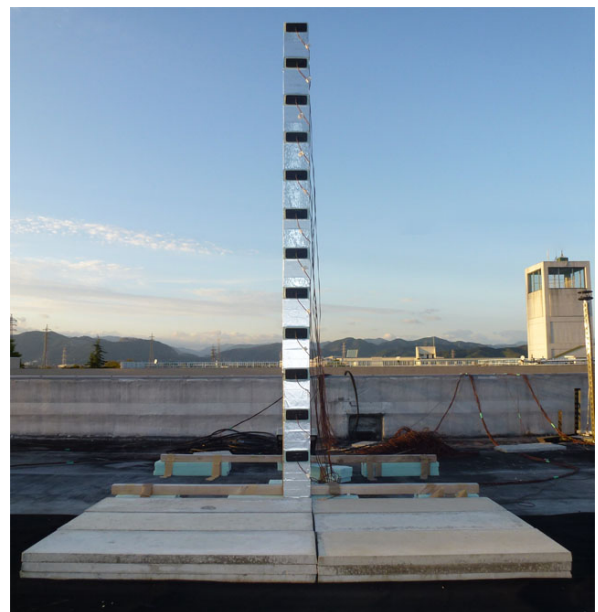
Measurement of thermal environment at kindergarten.

Method for energy saving

We study the two energy saving methods: the reflection of solar radiation and shielding for the air-conditioning load reduction by music playing in the room. The purposes of the former study are creating the measuring device and grasp the vertical distribution of the reflection to the inside of the room by the difference in the material of the surface terrace. The purpose of the latter study is creating the system which kept working efficiency and reduces the consumption energy of air-conditioning apparatus by reproduction of the BGM in work space.



Frequency spectrum of different tones.



Measuring device of the solar radiation.