Architectural and Urban Environmental Engineering Research Group

Department of Architectural Engineering,
Division of Global Architecture,
Graduate School of Engineering,
Osaka University

We are dealing with bulding environment like heat, air, light, and sound from the viewpoint of utilization of natural energy, energy saving, and designing occupied spaces of comfort and health.

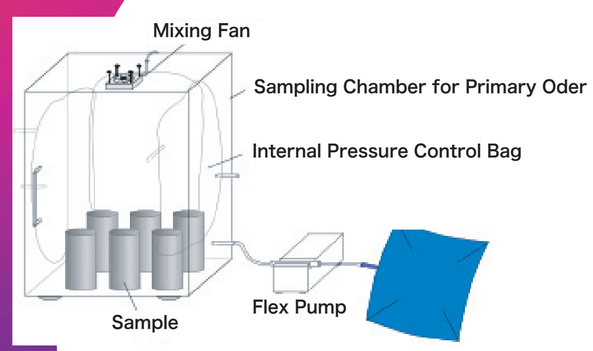
Our research field is spreading from “Human” to “Building” and they are categorized as follows

1). Environmental Psychology and Physiology
2). Built Environment Engineering
3). Building Services

Oder Environment of Health and Comfort

Sensory Evaluation of Oder from Building Materials

Sensory Evaluation by Oder Bag Method



Sampling Method of Oder

Evaluation of Comfortability in Urban Area

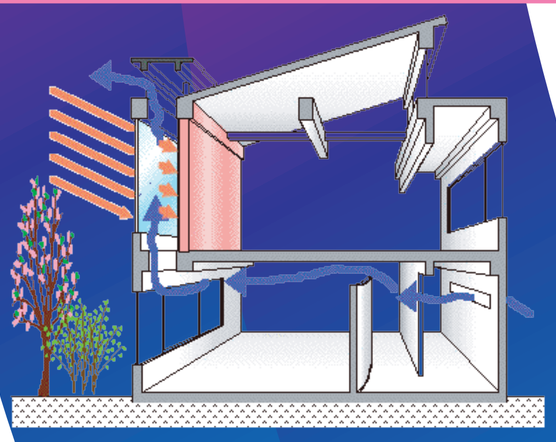
Survey for Visitors to Open Space

Survery for Visitors

Physical Environment Measurement

Ventilation System using Solar Energy

Solar Chimney available for 24 hour Ventilation



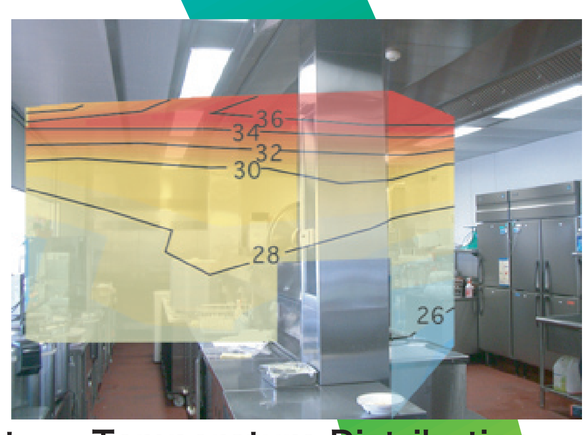
Residential Ventilation
using Solar Chimney

Ourdoor Experiment using
Full-Scale Test Model

Working Space Design for Human Comfort

Evaluation of Working Space for Commercial Kitchen

Thermal Environment Measurement

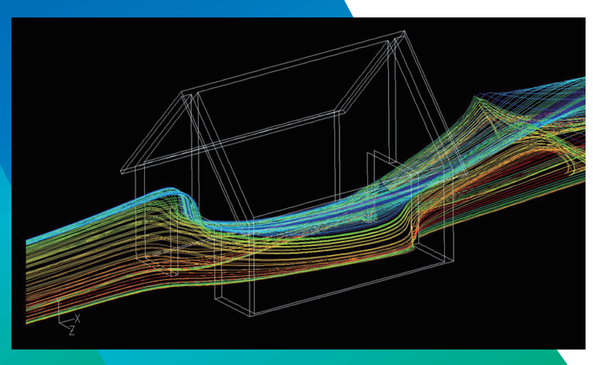


Temperature Distribution

Basic Research for Utilization of Wind

Prediction of Cross-Ventilation Rate

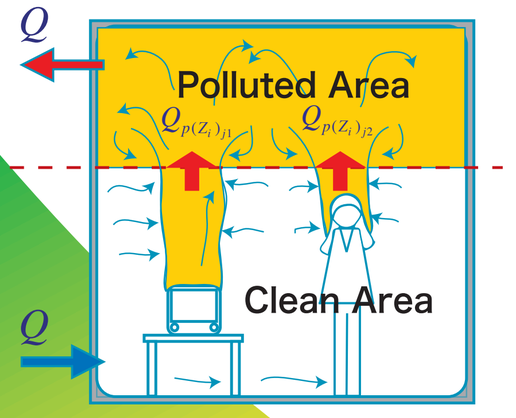
Wind Tunnel Test for
Detached House



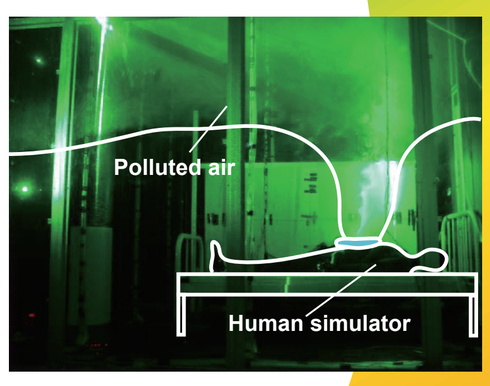
Simulated Result of Flow

Ventilation System for Clean Air Environment

Displacement Ventilation System for Sickroom



Displacement Ventilation

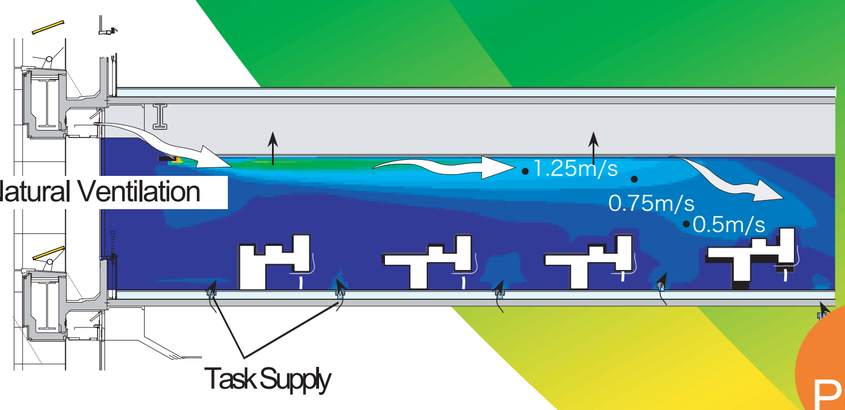


Experiment assuming Sickroom

HVAC System to utilize Natural Energy

Task Ambient Air-Conditioning with Natural Ventiation

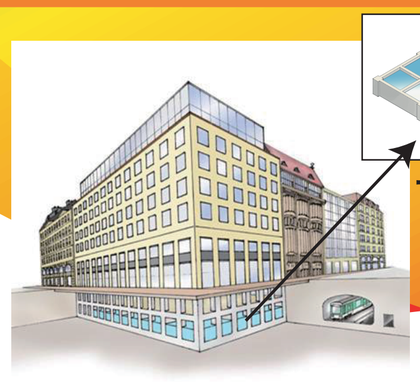
41Stories High-Rise Office Building using This System



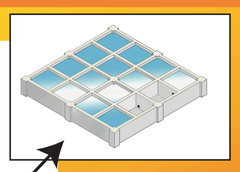
Simulated Result under Simultaneous use of
Natural Ventilation and Task Air-Conditioning

Energy Efficiency of Building Services

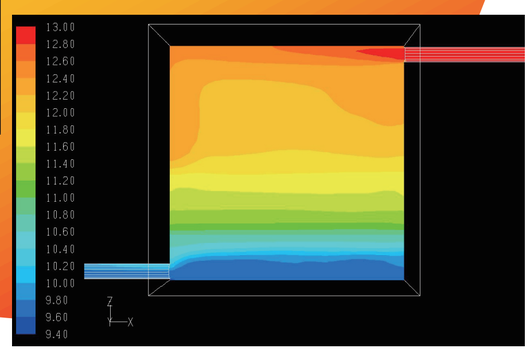
Perhormance Evaluation Thermal Energy Storage HVAC



Building with Thermal Energy
Storage (TES) Tank



TES Tank



Temperature Distribution
in TES Tank

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