

Name GENJO Kahori	Job Title Professor	Area of Expertise Building Environmental Engineering
1. Main Research Topics Through field surveys in various residential spaces, our laboratory evaluates the indoor environment and human physiological and psychological responses from the perspective of comfort and health, proposes improvement measures toward carbon neutrality, and evaluates biophilic spaces that incorporate natural elements. ① Impact of Biophilic Design Elements of the Psychological Responses of Occupants We are evaluating the impacts of biophilic design elements, such as indoor plants, views from windows, and neutral-colored furniture, on occupants' psychological responses, including their spatial impressions. ② Energy Consumption and Lifestyle in High-Performance Detached Houses We are conducting a survey of energy consumption and lifestyles in HEAT20 G1 and G2 houses, which have higher insulation performance than zero-energy houses (ZEH), to clarify effective lifestyles for reducing energy consumption other than for space cooling and heating, hot water supply, and lighting. ③ Comfort and Health of Indoor Environments in School Classrooms and Nursery Rooms We are evaluating the comfort and health of the environment surrounding children through measurements of indoor temperature and humidity, carbon dioxide concentration, illumination, and noise. We are also conducting a risk assessment for heatstroke in playgrounds using a WBGT meter developed in collaboration with a company. Furthermore, we are doing analyze of the relationship between students' concentration and their satisfaction with the classroom environment. ④ Thermal Environment and Occupant Health in Elderly Houses Our laboratory is conducting a field survey in elderly houses to clarify the relationship between the living environment of the elderly and their health, such as blood pressure and sleep, using multilevel analysis. ⑤ Adaptive Model of Thermal Comfort and Occupant Behaviors in Office Buildings Our laboratory is creating models to predict comfort temperatures and adaptive occupant behaviors.  Photo 1 Research in a library incorporating biophilic design elements  Photo 2 WBGT meter under development  Photo 3 Measurement in an office		
2. Keywords Indoor thermal environment, Biophilic design, Indoor plant, Comfort, Health, Productivity, Physiological response, Psychological response, Energy consumption, Insulation performance, Residential building, Office, School, Nursery school, Elderly, WBGT		
3. Remarks and Websites Our laboratory conducts field surveys of the indoor environment in buildings and measures the physiological and psychological responses of humans. The following themes pertain to current projects with companies: - Research on Lifestyles and insulation performance to reduce energy consumption in high-performance detached houses in Nagasaki Prefecture (Shiki Kobo Co., Ltd.) - Research on the evaluation of emotional value through spatial design using biophilia (YKK AP Inc.) - Development of living environment sensing technology and devices (Beaverworks Co., Ltd.) researchmap: https://researchmap.jp/read0062297?lang=en		