## **Thesis Abstract**

No. □ "KOU" Registration □ "OTSU" Chihiro Sato Name Number No. \*Office use only Thesis Title AdaptivePassage in a Shopping Mall: Calling to Drive Customers into Stores and Encourage Shopping Thesis Summary Passage, the glass-roofed marble-paneled corridors extending through buildings, acted as the center of commerce and the invention of industrial luxury in 19th century Paris. It elegantly stood as one of the most suitable places for the middle-class Parisians to spend their time; with tempting odors, music, and lights colorfully shining the shop windows and its articles. The prosperous atmosphere still exists today and attracts people to spare their leisure time drinking coffee, browsing boutiques, or enjoying just strolling around the place and its history.

This dissertation addresses AdaptivePassage Model, a model driving customers in shopping malls and encourages their shopping by creating an environment calling to their senses. The environment full of sounds, smells, and sights can be designed by adding a layer of ubiquitous computing technologies on top of the current brick and mortar retail architecture. This model is fruitful for renovating the existing static functional-style shopping mall into a dynamic architecture providing customers the enjoyable experience of shopping. In this paper, I set three components to design retail architecture and provide three methods to realize the adaptive experience with this model.

AdaptivePassage Model was developed and implemented through a collaboration project aiming to design prosperity in a shopping mall, conducted with the owner company of the mall. In this project, I created an adaptive sound environment calling to the customers to shop. This paper describes the design of AdaptivePassage Model implemented in a real shopping mall, and states that sensuous environments created with an additional layer of ubiquitous computing technologies is effectual for a new shopping mall design.