内容の要旨  （Abstract）

Kansei engineering, which is a consumer-oriented methodology, has been recognized as an important part in a broad range of Japanese manufacturing. Kansei values have been proposed as a new characteristic of industrial products after function, credibility, and cost, which motivate consumer purchases. According to worldwide success of many kawaii products, kawaii is considered as one important kansei value for future product design and development. Therefore, this dissertation focused on a study of kawaii feelings and evaluation of products.

First, she experimentally evaluated the kawaiiness of illustrations using eye tracking. As the results, she clarified the relationship between kawaii feelings and eye movement indexes, and identified two new indexes, which confirmed the effectiveness of eye tracking to evaluate kawaii feelings.

Next, she constructed two new models of kawaii feelings. She performed feature extraction and then constructed models for spoon designs using SVM algorithm. Then, she constructed models for cosmetic bottles using Deep CNN algorithm because their attributes were too complexed to perform feature extraction.

Finally, she clarified effective attributes to design kawaii products by employing constructed models and identified eye movement indexes. She developed a new method to evaluate candidates of effective attributes using Deep CNN model. Finally, she clarified effective attributes to increase kawaiiness of products by two eye movement indexes.