

Lighting Condition Estimation Using Image Database Based on Long-time Object Observation in Virtual Reality

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- **Lighting condition estimation**
Long-time object observation is required to get the image database for lighting conditions.

- **Problem**

The cost of this observation is high **in real environments**.

- **Proposal**

A robot gets the image database for lighting conditions **in virtual environments**.

1. Object observation
2. Appearance model estimation
3. Object recognition



Object observation
in virtual environment



Morning



Outdoor



Daytime



Indoor



Evening



Window

Obtained variable
appearance



Appearance model
estimation



Image database
for
lighting conditions



Object recognition
in real environment



Morning



Outdoor



Daytime



Indoor



Evening



Window

Predicted variable
appearance