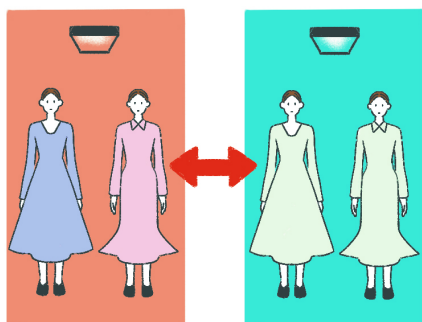


Background

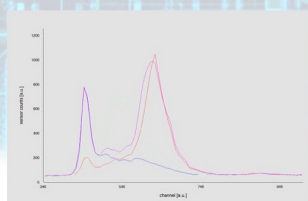
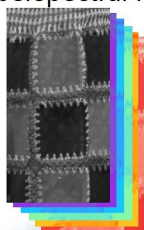
We aim to realize a world in which various invisible values can be conveyed to viewers in the metaverse through hyperspectral cameras based on proprietary technologies and the analysis and visualization of data obtained from these cameras.

Summary

By precisely predicting the color of an object when it is illuminated in various ways from data captured using a hyperspectral camera, optical phenomena that require precise conditions for their occurrence, such as metamerism (conditional isochromia), can now be expressed in the real world.

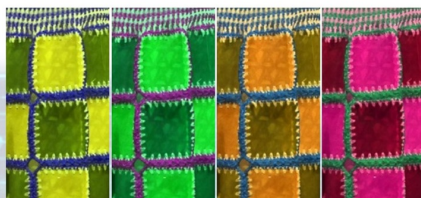


Hyperspectral Image



Spectral data of the object (reflected intensity at each wavelength)

Simulated visualization of object appearance under any lighting conditions based on the characteristics of the human eye



Analyze spectral data for lighting that produces a surprise



Control the color appearance of objects by lighting illumination

Features

- From a hyperspectral image of an object, its appearance is visualized in different lighting based on the spectrum of illumination and characteristics of the human eye
- Search for the isochromatic conditions that match human perceptual/cognitive characteristics to achieve surprising metamerism(conditional isochromatic) effects

Future_benefits

We will accurately visualize colors captured using a hyperspectral camera, enabling realistic color representation in metaverse spaces.

Collaboration partners

ANREALAGE CO., LTD, IMAGICA GROUP Inc.

Exhibiting Company

NIPPON TELEGRAPH AND TELEPHONE CORPORATION

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