Poster Presentation

Sat. Nov 1, 2025 1:00 PM - 1:50 PM JST | Sat. Nov 1, 2025 4:00 AM - 4:50 AM UTC | venue(Kanamori sangyo hall)
**[P1] ポスター発表 #1**

## [P1-20] Evaluating the urban landscape diversity through street-view images: A case study on Ota Ward, Tokyo

*Hang Shen[1], Takuya Oki[1] (1. Institute of Science Tokyo)

Keywords：urban landscape、diversity、street view image、manifestation、eye-level scenery、computer vision、machine learning

Urban landscapes (UL) increasingly tend to homogenization with urbanization. Potentially reducing experiential richness and linking to broader challenges such as inequities and gentrification. Yet most studies on UL focus on morphological patterns (e.g., land use, road networks) but overlook eye-level experience. With street view imagery (SVI), UL can be assessed from a human perspective, though prior work often emphasizes isolated elements or aesthetics.
This study develops an approach to evaluate streetscape heterogeneity by computer vision, extracting SVI elements and creating landscape diversity index. To achieve this, UL is redefined as a dual construct: morphology (spatial patterns) and manifestation (observable expressions at street level). Within this framework, landscape diversity is introduced as an indicator of manifestation.
Ota Ward, Tokyo serves as study area. As the city’s ward with the widest variety of land uses, it provides a representative setting for examining how landscape diversity is expressed. The study links morphology and manifestation, making diversity measurable and providing support for tracking urban landscape.

©一般社団法人地理情報システム学会