

Analysis of Public Space Usage Characteristics Based on Computer Vision Technology - Taking Shaping Park as an Example

Authors : Guantao Bai

Abstract : Public space is an indispensable and important component of the urban built environment. How to more accurately evaluate the usage characteristics of public space can help improve its spatial quality. Compared to traditional survey methods, computer vision technology based on deep learning has advantages such as dynamic observation and low cost. This study takes the public space of Shaping Park as an example and, based on deep learning computer vision technology, processes and analyzes the image data of the public space to obtain the spatial usage characteristics and spatiotemporal characteristics of the public space. Research has found that the spontaneous activity time in public spaces is relatively random with a relatively short average activity time, while social activities have a relatively stable activity time with a longer average activity time. Computer vision technology based on deep learning can effectively describe the spatial usage characteristics of the research area, making up for the shortcomings of traditional research methods and providing relevant support for creating a good public space.

Keywords : computer vision, deep learning, public spaces, using features

Conference Title : ICUDD 2023 : International Conference on Urban Design and Development

Conference Location : Bali, Indonesia

Conference Dates : October 23-24, 2023