

Research on Urban Thermal Environment Climate Map Based on GIS: Taking Shapingba District, Chongqing as an Example

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Abstract : Due to the combined effects of climate change, urban expansion, and population growth, various environmental issues, such as urban heat islands and pollution, arise. Therefore, reliable information on urban environmental climate is needed to address and mitigate the negative effects. The emergence of urban climate maps provides a practical basis for urban climate regulation and improvement. This article takes Shapingba District, Chongqing City, as an example to study the construction method of urban thermal environment climate maps based on GIS spatial analysis technology. The thermal load, ventilation potential analysis map, and thermal environment comprehensive analysis map were obtained. Based on the classification criteria obtained from the climate map, corresponding protection and planning mitigation measures have been proposed.

Keywords : urban climate, GIS, heat island analysis, urban thermal environment

Conference Title : ICUSS 2023 : International Conference on Urban Sustainability and Strategies

Conference Location : Sydney, Australia

Conference Dates : December 04-05, 2023