

Application of Laser Scanner Based on SLAM Technology in Urban 3D Digitization

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Key words: Laser scanning; Low cost technology; Quantity surveying; Remote sensing; Spatial planning; Tunnel surveying

SUMMARY

The 3D digital expression of cities is an important basis for realizing smart cities and digital twins. At present, there is an increasing demand for cities to realize digital expression of multiple details and levels. SLAM technology based on LiDAR can quickly and accurately acquire 3D laser point clouds, panoramic images and driving tracks of complex scenes such as indoor and outdoor, aboveground and underground, and can provide data support for indoor positioning, indoor 2D and 3D maps and 3D model production. The portable SLAM 3D laser scanner is characterized by its convenience and accuracy. It is widely used in building information collection and underground space digitization, which can be used as a more detailed and complete supplement for urban 3D data.

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FIG Working Week 2023
Protecting Our World, Conquering New Frontiers
Orlando, Florida, USA, 28 May–1 June 2023