LSGI - SCRI Joint Distinguished Lecture

Awarded Projects Sharing in Geneva Invention Expo 2021

Date: 27 April 2021 (Tue)
Time: 3:00pm - 4:00pm
Venue: Online@Zoom
Language: English

In a special virtual edition of the 48th International Exhibition of Inventions of Geneva in March 2021, Prof. John Wenzhong Shi and Dr Charles Man-sing Wong were awarded the Gold Medals for their smart city platform and smart monitoring system for urban tree management respectively.

1. Smart City Platform: A Comprehensive System for Spatial Data Infrastructure

The Smart City platform incorporates a series of latest patented technologies in 3D city modelling, AI-based urban object cognition, as well as spatial big data analytics and visualization. The platform can be used to acquire and process massive urban spatial information, 3D LiDAR data, and multi-scale image data, and hence create high-precision smart city data infrastructure. By providing a range of urban sensing, urban computing, and urban analytics functions, the platform can be used to support wide smart city applications, such as smart governmental policy-making, smart environmental management, smart transport optimization, and smart citizen services.

2. Smart Monitoring System for Urban Tree Management

This monitoring system employs smart sensing technology to measure tree tilt and displacement. The locations of the trees and data of its surrounding environment can be identified using the GIS-based platform for quantifiable analysis of the trees' root plate movement. It is also equipped with AI algorithms and Spatial Big Data analytics, which can evaluate the leaning trend and its potential risk factors correlated to tree failure. The system enables large-scale monitoring of tree stability, allowing timely and appropriate mitigation measures to be taken.

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