

ABSTRACT

AIRPORT RAMP SURFACE MOVEMENT MONITORING SYSTEM

An integrated monitoring system and method are provided with the capability for monitoring ground surface movements of electric taxi drive system-driven aircraft, ground vehicles and personnel, and objects within airport ramp areas. Monitoring units may include a scanning LiDAR device with and without cameras or other sensing devices to transmit meshed real time encrypted data from multiple locations to an artificial intelligence-based processing system that generates a visual display of the monitored area for communication to aircraft cockpits and locations responsible for controlling ramp operations. Monitoring units may be mounted in single or multiple exterior locations on aircraft and/or in locations on ground vehicles and equipment, ground personnel, and the airside portion of an airport terminal.

No Figure