Long Endurance Drone with AI/Analytics-Enabled Detection Capabilities

Technology Overview

Recently, the use of industrial-grade drones to perform surveillance and inspection has grown significantly. However, commercial applications of drones are currently hindered by the short flight duration (of around 15-30 minutes) due to lithium battery power source constraint. This flight time limitation can result in productivity loss and severely restricts the great potential of drone technology.

A smart drone powered by hydrogen fuel cell has been developed to extend the flight duration and thus address this limitation. In addition, the smart drone prototype is equipped with intrusion detection capability for use in surveillance/inspection applications.

Features & Specifications

- Long flight duration up to 2 hours
- Heavy payload up to 3kg
- Customised airframe design for the drone platform
- Fuel cell power management technology
- Enhanced telemetry technology
- AI/analytics-enabled detection technology
- Remote data and video monitoring
- Intelligent diagnostic capabilities
- Universal platform for surveillance/inspection applications

Customer Benefits

- Long endurance capability
- Short charging time, lower downtime
- Increase in productivity
- Zero carbon emissions

Potential Applications

- Surveillance
- Building facade inspection
- Visual water monitoring and water sampling
- Aerial surveying

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