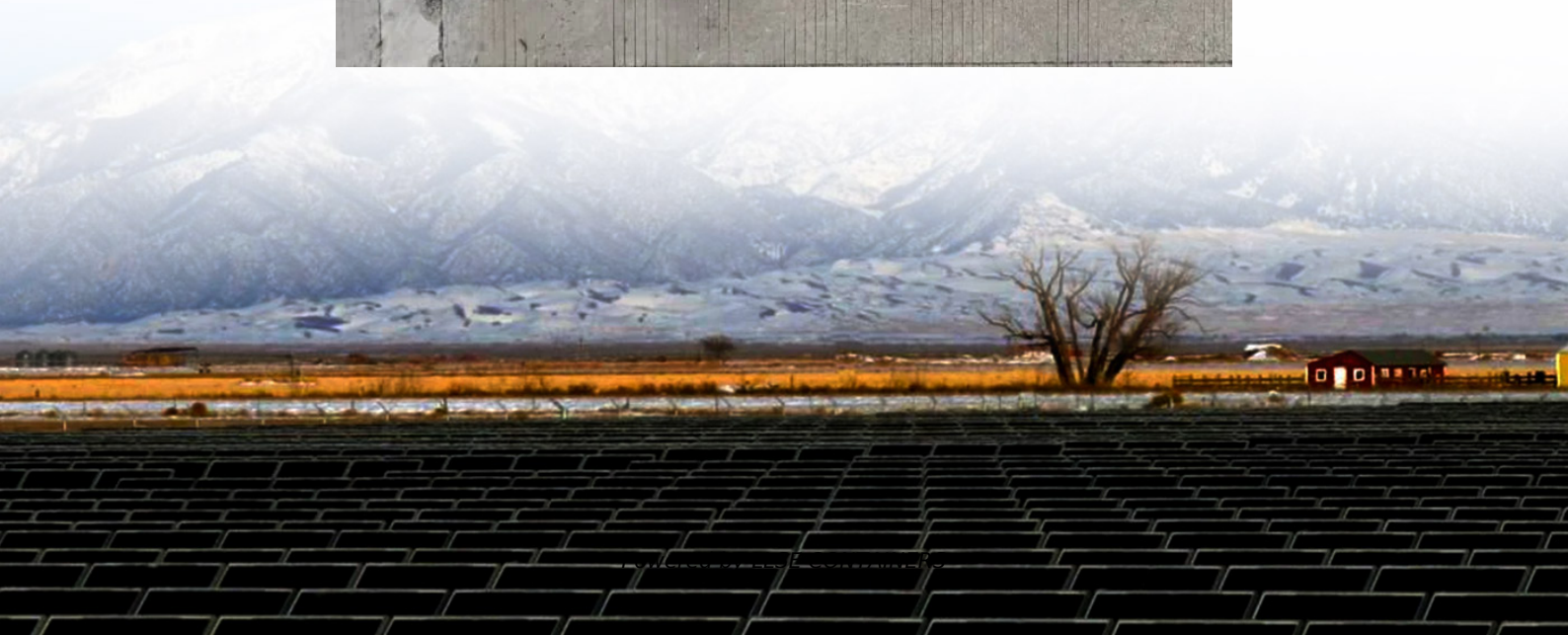
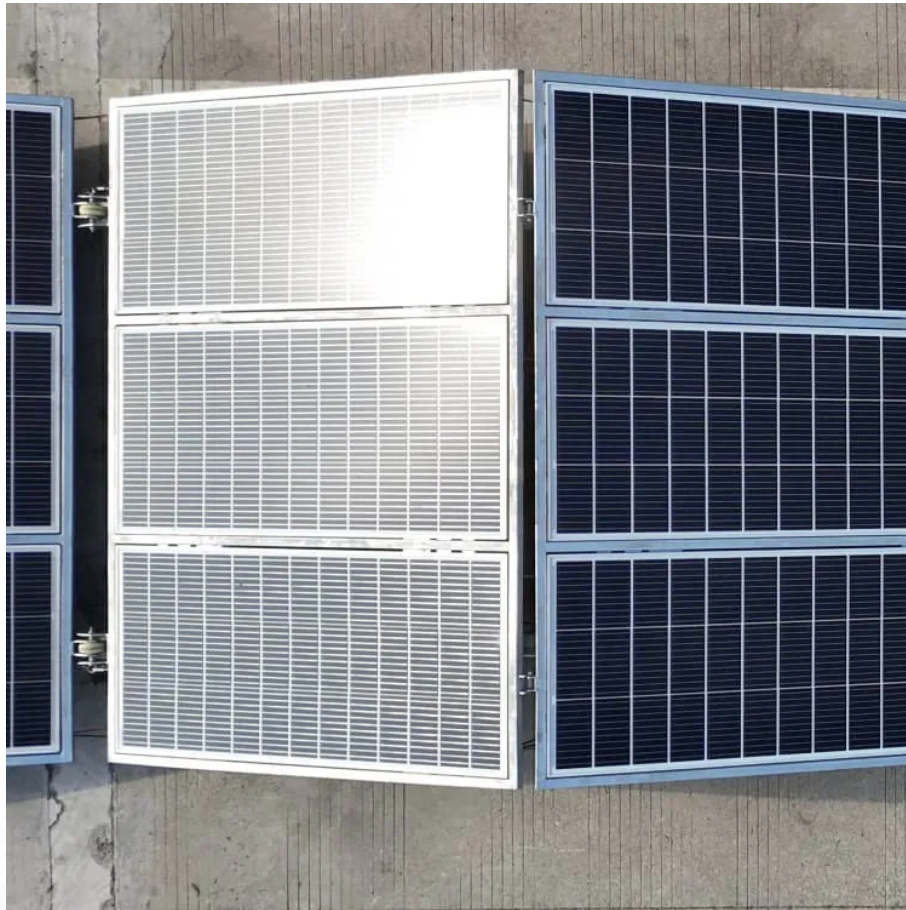


Lora solar street light control system





Overview

What is a Lora Solar System?

The setup integrates a programmed Arduino board with PIR and LDR sensors, a GPS module, a LoRa shield, and a LoRaWAN gateway. The system is powered by a monocrystalline solar panel with a solar charger shield and battery and utilises LED lights for illumination.

What is LoRa technology?

The system leverages light intensity and motion detection data, accessible via the internet at any time and from any location. LoRa technology is selected for its long-range, low-power, and cost-effective connectivity, which is optimal for the expansive reach of urban street lighting networks.

Does LoRaWAN support smart street lighting?

Our study advances the smart street lighting domain by integrating LoRaWAN for enhanced coverage and IoT for real-time monitoring and control. Unlike the limitations observed with Zigbee's short-range and complex setup, our system leverages LoRaWAN's long-range capabilities, overcoming large area communication challenges.

How does a smart Streetlight control system work?

To enhance efficiency and conserve energy, a smart control system incorporating Light Dependent Resistors (LDR) and Passive Infrared (PIR) sensors has been developed. This system dynamically adjusts the illumination of streetlights based on the ambient light intensity and detected motion, turning them on or off as needed.



Lora solar street light control system

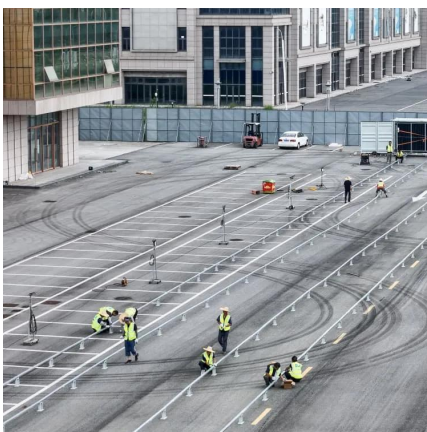
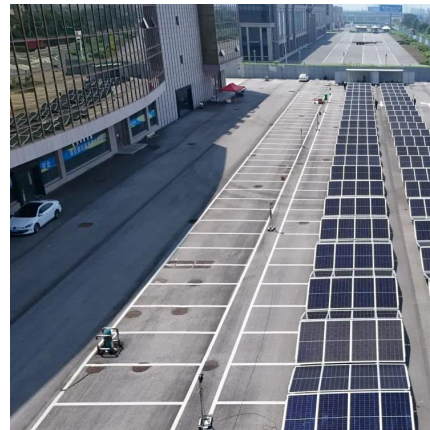


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LoRa/LoRaWAN

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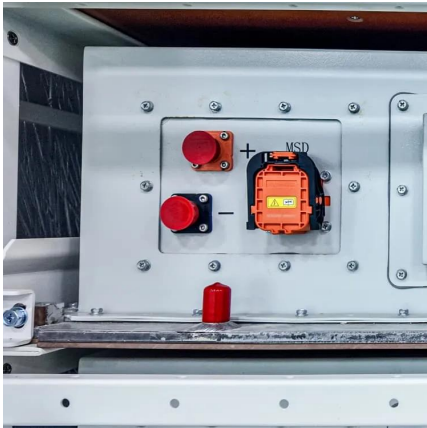
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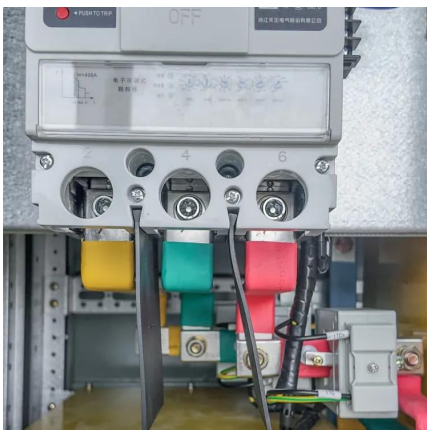


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