



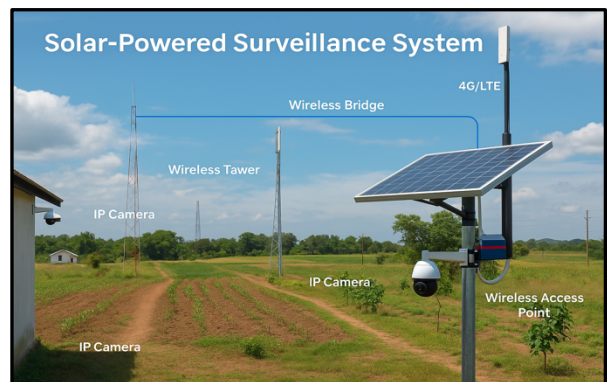
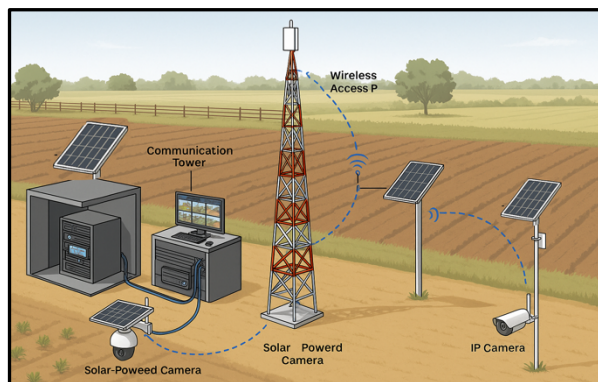
SKYDNE EYE HC - SERIES

SKYDNE EYE HC- SERIES - Solar-Powered Surveillance System

A fully solar-powered PT/PTZ security camera unit with an integrated solar panel and battery, offering internet connectivity and all-weather operation.



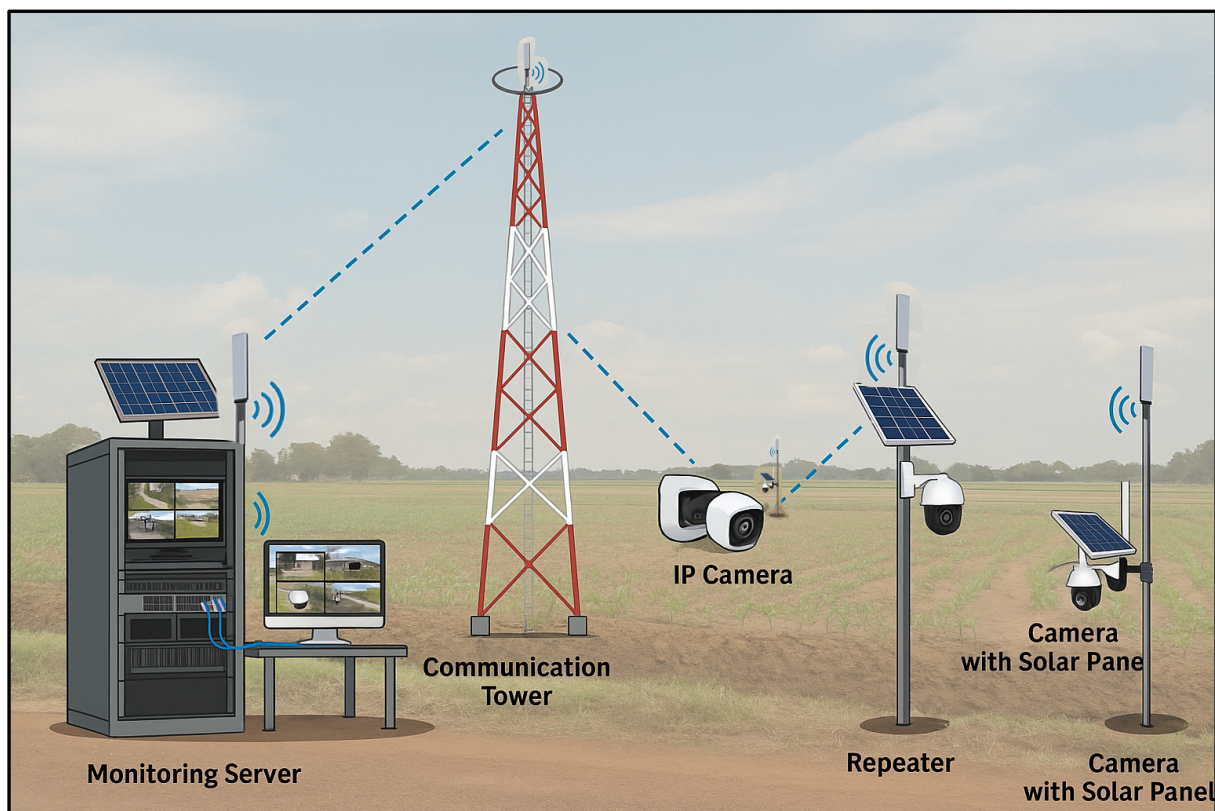
The **SKYDNE EYE** surveillance system is a **100% solar-powered, all-weather wireless CCTV solution** engineered for remote and expansive locations. It operates **independently of the power grid**, making it ideal for farms, estates, campuses, industrial perimeters, and other sites with limited infrastructure. Each camera unit is self-sustaining with solar panels and high-capacity batteries, ensuring uninterrupted 24/7 operation even during prolonged cloudy or rainy periods. The system’s design emphasizes reliability, flexibility, and ease of deployment – eliminating the need for external wiring or power sources in the field. With its modular connectivity and long-range wireless architecture, SKYDNE EYE provides a scalable platform for comprehensive surveillance coverage over large areas.





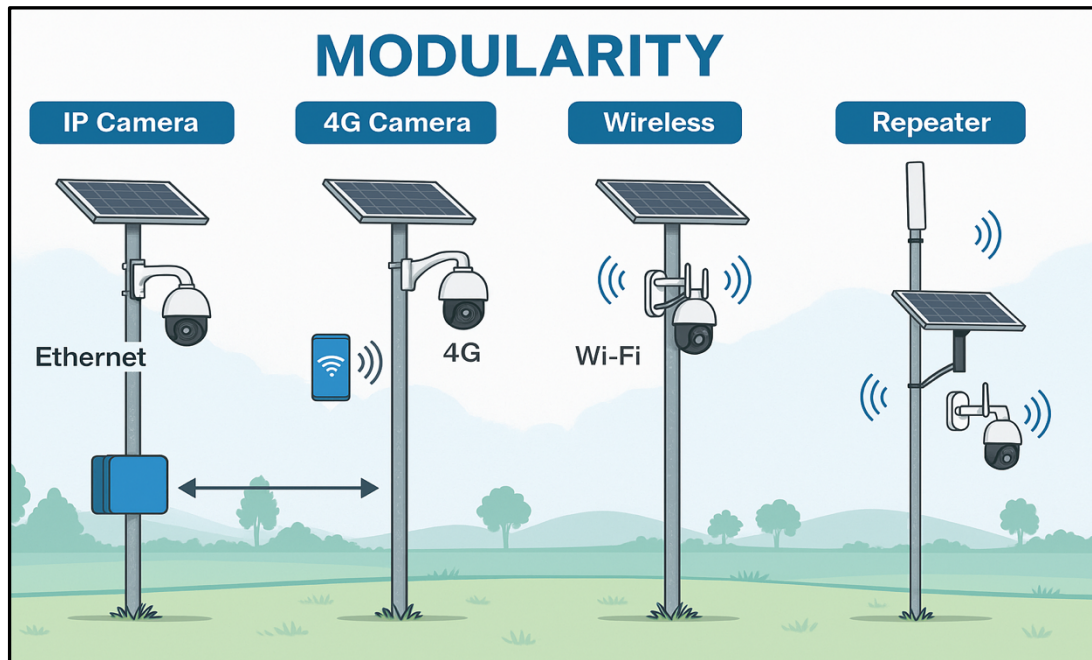
100% Solar-Powered Operation With Battery Backup

At the core of SKYDNE EYE is a robust solar power subsystem that enables **completely off-grid operation**. Each camera station is equipped with high-efficiency photovoltaic panels (e.g. monocrystalline panels) and an intelligent **MPPT charge controller**. The MPPT (Maximum Power Point Tracking) technology maximizes energy harvest, extracting up to ~30% more energy from the solar panels compared to conventional controllers. This ensures optimal charging even under variable sunlight or partial shading. Collected solar energy is stored in a **deep-cycle battery bank** (advanced lithium-ion or LiFePO₄ batteries) that provides **up to 72 hours of autonomy** without sunlight. In other words, the system can continue surveillance through **multiple sunless days** (rainy or overcast conditions) on battery power alone, safeguarding continuous coverage during bad weather. An MPPT-based power controller not only charges efficiently but also prevents over-charge/over-discharge, extending battery life and reliability. This solar power design guarantees round-the-clock operation and truly wireless deployment, free from any dependence on grid power or fuel generators.





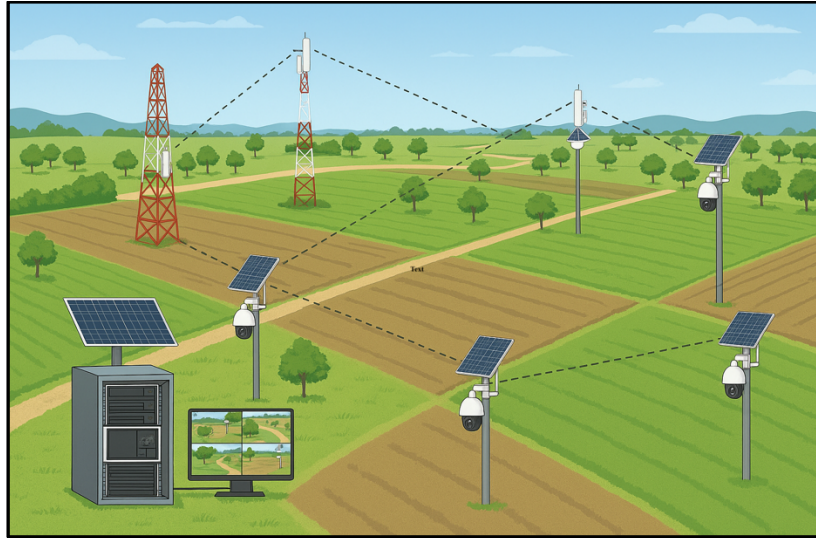
Modular Connectivity (4G LTE, LAN & Wi-Fi)



SKYDNE EYE offers **flexible connectivity options** to transmit video feeds from remote cameras to the central server. Each unit can stream video either via an **lan cable, onboard 4G/LTE cellular module** (using a SIM card) or through IP networking (4G or Ethernet or Wi-Fi). The **cellular 4G option** enables live video streaming over mobile networks, which is crucial for cameras in far-flung areas lacking data cabling – for example, agricultural fields, construction sites, borders, and other remote installations. This plug-and-play cellular connectivity ensures that even in the middle of nowhere, the cameras can relay footage in real time. Alternatively, if a local area network or internet connection is available on-site (such as at a campus or facility), the system can use **wired LAN or Wi-Fi** links for higher bandwidth transmission. All networking hardware is designed to be modular and interchangeable – you can select or combine connectivity modes based on site-specific needs. The result is a **truly wireless CCTV solution**: no power cords (thanks to solar power) and no dedicated communication cables required if using wireless links. This dramatically reduces installation complexity and makes the system **highly portable and quick to deploy** in any environment.



Long-Range Wireless Network Coverage



To cover large estates or distributed facilities, SKYDNE EYE incorporates a **long-range wireless architecture** using directional client-access point technologies (similar to industrial class wireless bridges). This setup enables point-to-point (PtP) or point-to-multipoint (PtMP) links that can **transmit video and data over several kilometers** with line-of-sight. By mounting antennas on high towers or leveraging elevated terrain, the system achieves reliable connectivity across expansive properties. In fact, with proper directional antennas and clear line-of-sight, wireless bridge links can reach distances on the order of **5 km or more**, making them well-suited for farm surveillance, perimeter security, or connecting outlying cameras to a central hub. A single high-gain base station can cover a broad sector (e.g. up to 70° beamwidth) to serve multiple camera units in different directions. Each remote camera node is equipped with a paired wireless transceiver (client radio) pointing to the central access point. This **long-range Wi-Fi/PtP network** carries the video streams back to the central server without any cable trenching. All wireless bridge equipment is outdoor-rated and optimized for throughput and low latency, ensuring smooth video feeds. The wireless links use secure encryption to prevent interception, and can be tuned to avoid interference. By utilizing these **high-powered directional radios**, SKYDNE EYE effectively creates a private wireless surveillance network blanketing the entire site – from one corner of a farm or campus to another – without relying on external internet infrastructure.



All-Weather Solution

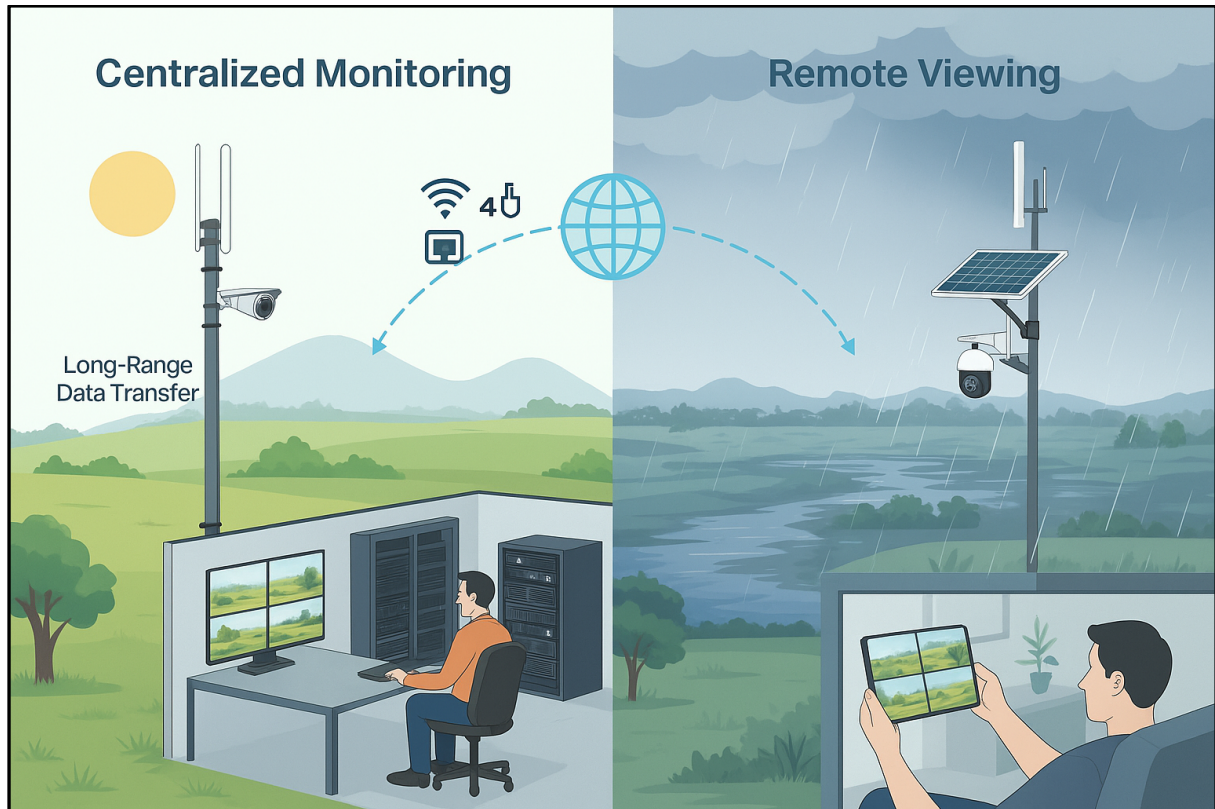


The SKYDNE EYE system deploys **professional-grade IP cameras** built to withstand harsh outdoor conditions while delivering sharp video day and night. Each camera unit provides **high-definition imaging** (at least full 1080p HD resolution, with options for 2MP, 4MP or higher sensors) to capture clear details of the surveillance area. For 24/7 coverage, the cameras feature **infrared night vision** (IR LED illumination) allowing visibility

in complete darkness, typically up to tens of meters range. Some models offer low-light color night vision using ultra-low-lux sensors or built-in spotlights for full-color video even at night. The enclosure of each camera is **weather-sealed to IP66/IP67 standards**, making it **fully dust-tight and rainproof**. This rugged design ensures the cameras remain operational through heavy rain, dust storms, or snow. They are engineered to tolerate extreme temperatures and environments – similar outdoor surveillance hardware is rated from about **-40°C to 70°C** for operation – meaning the SKYDNE EYE cameras and wireless units will perform reliably in both winter cold snaps and scorching summers. The system's hardware also includes surge protection and grounding to guard against lightning and electrical transients common in outdoor installations. **Durability is paramount:** corrosion-resistant mounts, UV-resistant enclosures, and solid-state storage (for on-board video buffering) all contribute to a low-maintenance, long-lasting solution. Despite the robust build, the cameras are compact and modular, with options like pan-tilt-zoom (PTZ) functionality for wide area coverage or fixed bullet cameras for specific perimeters. In all cases, you can expect **crisp video feeds and event detection** (motion or AI-based) under any weather or lighting conditions, ensuring no activity goes unnoticed.



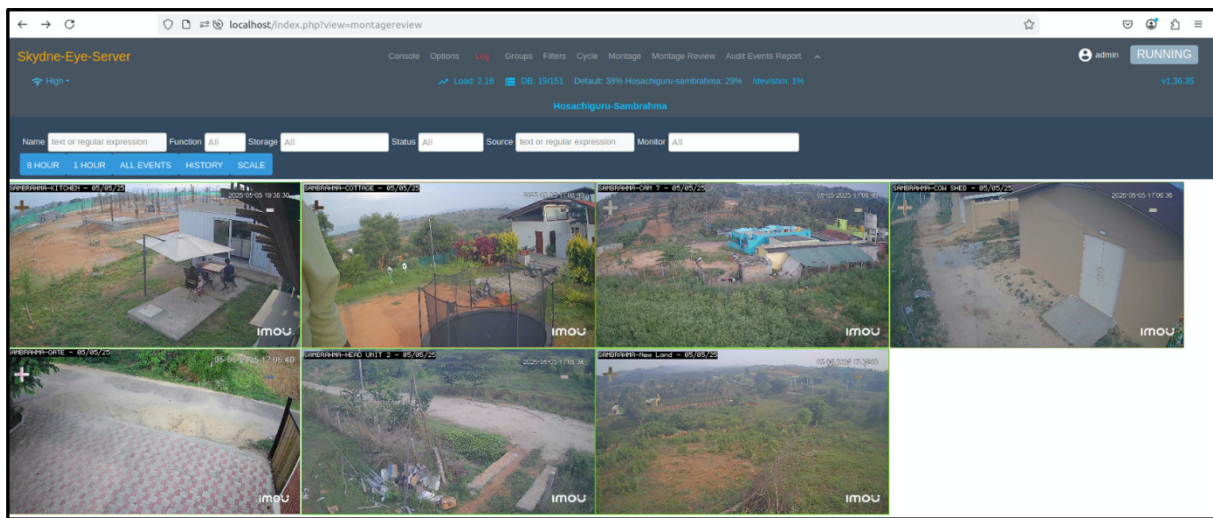
Centralized Monitoring and Recording



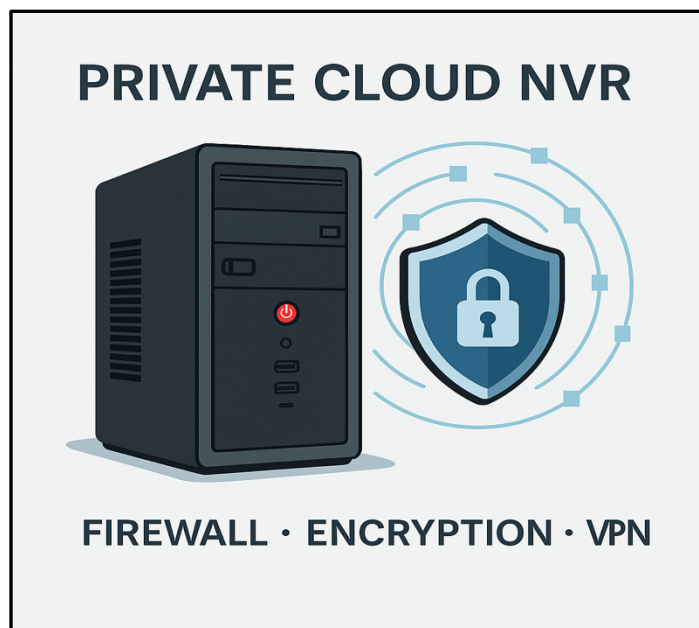
All remote cameras integrate seamlessly with the central **“SKYDNE EYE” server**, which is the nerve center of the surveillance system. This server is a **Linux-based video management platform** that aggregates incoming video streams, provides storage for recordings, and offers a user interface for live monitoring and playback. The server software supports **continuous 24/7 recording** from all cameras, as well as motion-triggered or scheduled recordings as needed. High-efficiency video compression (such as H.264/H.265) is used to optimize bandwidth and storage without compromising quality. The most convenient feature is the **remote accessibility** – authorized users can securely access the SKYDNE EYE server from **any device with a web browser**, whether it’s a PC in the control room or a smartphone in the field.



The web-based interface (and optional mobile-friendly view) allows you to watch live camera feeds, review archived footage, and control PTZ cameras in real time. The interface is intuitive and supports multi-camera viewing, timeline scrubbing, and event alerts. Being Linux-based, the server is highly reliable and can run on modest hardware or a dedicated industrial PC. It's also scalable – it can manage dozens of camera feeds, and can be configured for failover or cloud backup if required.



The server implements strong cybersecurity measures (firewall, encryption, VPN support) to protect the system from unauthorized access, which is critical when cameras are accessible over cellular networks or the internet. In essence, the **SKYDNE EYE server functions as a private cloud NVR (Network Video Recorder)** for your surveillance ecosystem, giving you centralized control and situational awareness across all your remote cameras via one unified platform.





Versatile Applications and Use Cases

The flexibility and resilience of the SKYDNE EYE system make it suitable for a wide range of surveillance applications, especially in scenarios where traditional wired CCTV is impractical. Key use cases include:



- Border and Perimeter Surveillance:** Monitor remote border areas or large perimeter fences with solar cameras that require no grid power, maintaining vigilance in places far from utilities. The long-range wireless links and battery backup ensure continuous coverage of critical boundary zones.
- Farmland and Plantation Security:** Safeguard crops and livestock across vast farms, ranches, or plantations. Cameras can be deployed in fields, orchards, and storage yards to deter theft and trespassing, all while operating independently off the land's sunlight. Farmers get round-the-clock eyes on their property even in off-grid rural locales.



- **Wildlife Monitoring and Conservation:**

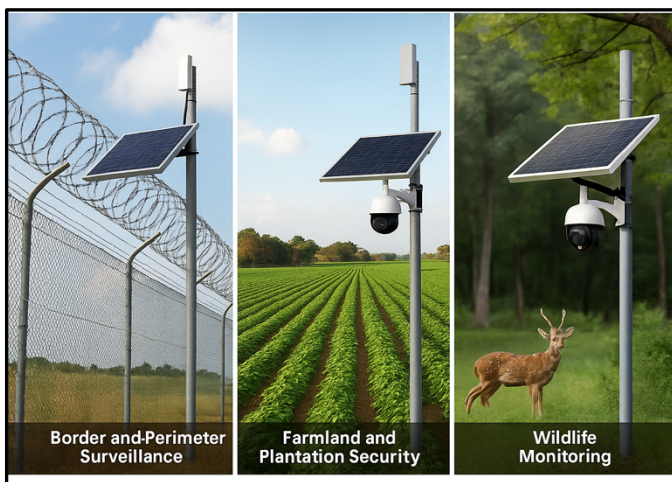
Deploy cameras in wildlife reserves or forest fringes to observe animal activity or prevent poaching. The silent solar-powered units minimize disturbance and can function deep in the wilderness without external power, sending footage back via 4G or long-range radio to researchers or rangers.



- **Construction and Remote Worksites:**

Secure construction sites, mines, and critical infrastructure projects that lack permanent power. The system can be rapidly installed at a worksite to provide surveillance of equipment and personnel. As the project progresses or relocates, the wire-free cameras can be repositioned as needed.

- **Campus and Industrial Perimeters:** Enhance security at large campuses, factories, or industrial parks by extending surveillance to remote corners and boundaries. Without needing to lay network cables, organizations can cover parking lots, far-edge fences, and remote buildings. The central server allows security teams to monitor all feeds in one place.

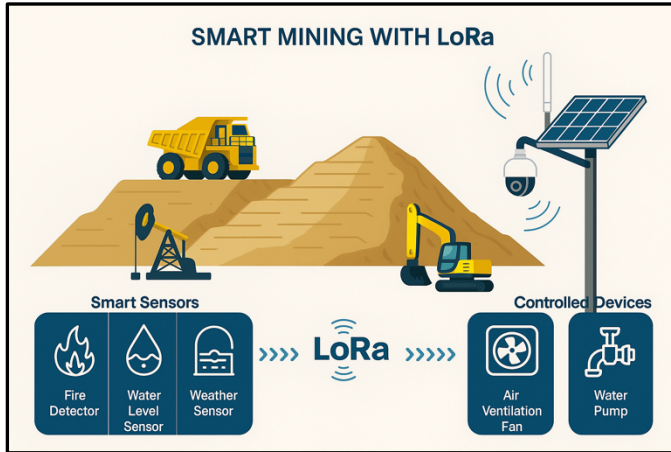


- **Smart Villages & Community Security:** Bring surveillance to developing or remote communities where electricity is unreliable. One or two high towers can connect multiple street cameras around a village, all powered by solar. This improves safety and enables community policing, with footage accessible to authorities over the internet.

In all these scenarios, SKYDNE EYE's **autonomous operation and wireless flexibility** shine – it delivers security and peace of mind to locations previously difficult to cover with traditional CCTV.



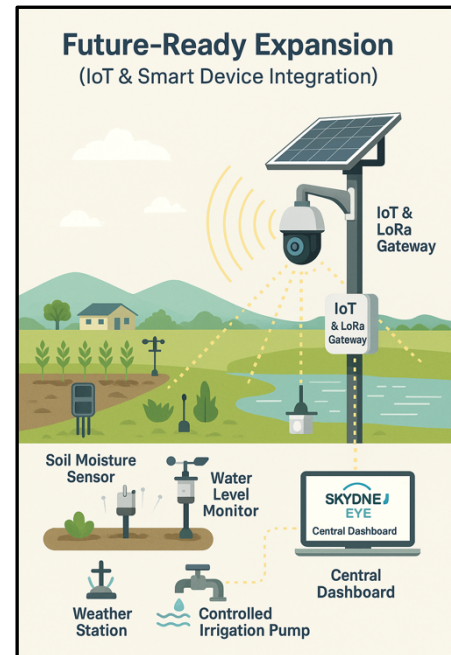
Future-Ready Expansion (IoT & Smart Device Integration)



Beyond video surveillance, the SKYDNE EYE platform is designed with a vision for broader **IoT integration** in remote site management and smart site management. It supports optional **LoRa** (Long Range) wireless modules as add-ons to the system, enabling a new range of sensor and control capabilities. LoRa technology is a low-power, long-range communication protocol ideal for connecting battery-

powered sensors across farmland or large sites. With LoRa add-ons, the system can incorporate **smart sensors and actuators** – for example, soil moisture sensors, weather stations, water level monitors, controlled air ventilation pumps and controlled irrigation pumps. This means the surveillance tower could double as a connectivity hub for site management.

Automated control is one potential expansion: Data can be collected via LoRa sensors and used to trigger actions when needed. Other future modules could include **fire or smoke detectors** in sensitive areas to provide early warning of fires or accidents, as well as **intrusion alarms or animal movement sensors** that complement the cameras. The open architecture of the SKYDNE EYE server (Linux-based) allows integration of these IoT data streams into the central dashboard – for instance, Central Security could receive alerts about site/field conditions alongside camera feeds. By choosing a LoRaWAN-based approach, the system ensures that these IoT devices enjoy the same long-range, low-power communication benefits, covering vast acreage without heavy infrastructure. This **future-proof design** makes SKYDNE EYE not just a security system, but a platform for **smart remote site management**, ready to scale with evolving needs in agriculture, mining, conservation, and security. It underscores our commitment to a holistic solution – one that can protect, monitor, and even help manage your property intelligently as new technologies emerge.





Technical Specifications

Every site is different and post site visit we shall share the specifications for the site. To summarize the SKYDNE EYE system's capabilities, the following table outlines key technical specifications of the components and features:

Aspect	Specification
Power Supply	Solar-powered off-grid system with dedicated solar panels per camera unit; includes a high-capacity battery bank for backup (supports ~72 hours autonomy without sunlight). Charging managed by an MPPT solar charge controller for optimal efficiency.
Camera	All-weather IP66/IP67-rated CCTV camera , capable of HD (1080p) or higher resolution video. Equipped with IR LEDs for night vision (for 24/7 monitoring) and optional low-light color vision. Available in fixed lens or PTZ variants (pan/tilt/zoom) with remote control. Operating temperature range designed for extreme outdoor conditions (approx. -20°C to 60°C or more).
Connectivity	Modular data connectivity: Supports 4G/LTE cellular connectivity via SIM card for wireless internet streaming. Also supports Ethernet (LAN) and Wi-Fi connectivity where available. Cameras can connect to a central network either through direct internet or via a long-range wireless bridge (PtP/PtMP radio link) spanning up to several kilometers line-of-sight.
Video Management	"SKYDNE EYE" Central Server (Linux-based) for video aggregation and recording. Provides browser-based access for live monitoring and playback from any device. Supports continuous recording, motion detection alerts, and secure remote access. Storage capacity and retention configurable (supports local disk or NAS storage of recorded footage).



SKYDNE GLOBAL SOLUTIONS PVT LTD

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GSTIN: 29ABHCS0969D1Z3

CIN: U72900KA2021PTC153222

PAN:ABHCS0969D | TAN:BLRS85153F

Power Backup	Battery Backup included with each solar unit – typically a rechargeable lithium battery pack (for example, >300 Wh capacity) providing at least 3 days (72 hours) of continuous operation without solar input. Ensures reliability through nights and extended bad weather.
Wireless Network	Directional Wireless Bridge option for long-range connectivity: Utilizes outdoor point-to-point radios/antennas (5 GHz band or similar) with high gain. One central access point can cover multiple client units (wide beam sector antennas up to 60–70°). Encrypted links with up to ~5 km range for camera connectivity in remote areas.
Environmental Protections	Rugged outdoor design – Camera and radio enclosures are weatherproof (IP66/IP67) and include lightning/surge protection. Mounting hardware is wind-resistant and corrosion-proof. System designed to operate in diverse climates (rain, snow, heat) with minimal maintenance.
Optional Expansion	IoT LoRa WAN Module (Optional) – Allows integration of IoT sensors and controls for smart farming or site monitoring. Supports devices like soil moisture sensors, climate sensors, smart irrigation pump controllers, and fire detection units. Data from LoRa sensors can be funneled to the SKYDNE EYE server for a unified monitoring dashboard.

Each component of the SKYDNE EYE surveillance system is chosen to meet **international standards of quality and performance**, ensuring the product remains universally applicable and reliable. This technical brochure highlights the system’s core strengths – *sustainable power, flexible networking, robust build, and smart expandability* – that together make **SKYDNE EYE** a cutting-edge solution for modern surveillance needs in remote and challenging environments.



PHOTO GALARY





SKYDNE GLOBAL SOLUTIONS PVT LTD

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GSTIN: 29ABHCS0969D1Z3

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PAN:ABHCS0969D | TAN:BLRS85153F

Console | Filters | Cycle | Montage | Montage Review | Audit | Events Report

Skydne-Eye-Server

Hosachiguru-Sambrahma

Name: text or regular expression | Function: All | Storage: All | Status: All | Source: text or regular expression | Monitor: All

Capturing 100%

Id	Name	Function	Source	Storage	Events	Hour	Day	Week	Month	Archived	Zones
1	SAMBRAHMA-TOWER	Record Capturing	rtsp://192.168.0.15/cam/realmonitor	Hosachiguru-sambrahma	2935	1	25	170	905		1
2	SAMBRAHMA-COTTAGE	Record Capturing	rtsp://192.168.0.23/cam/realmonitor	Hosachiguru-sambrahma	3329	1	24	169	648		1
4	SAMBRAHMA-CAN 7	Record Capturing	rtsp://192.168.0.12/cam/realmonitor	Hosachiguru-sambrahma	4511	1	26	173	2361		1
5	SAMBRAHMA-COW SHED	Record Capturing	rtsp://192.168.0.20/cam/realmonitor	Hosachiguru-sambrahma	3932	1	26	174	1173		1
6	SAMBRAHMA-GATE	Record Capturing	rtsp://192.168.0.25/cam/realmonitor	Hosachiguru-sambrahma	2263	1	25	165	854		1
19	SAMBRAHMA-New Land	Record Capturing	rtsp://192.168.0.14/cam/realmonitor	Hosachiguru-sambrahma	1115	1	23	187	1115		1
22	SAMBRAHMA-HEAD UNIT 2	Record Capturing	rtsp://192.168.0.11/cam/realmonitor	Hosachiguru-sambrahma	571	1	25	173	571		1
Total: 7					259,914B/s						7

Console | Filters | Cycle | Montage | Montage Review | Audit | Events Report

Skydne-Eye-Server

Hosachiguru-Sambrahma

Name: text or regular expression | Function: All | Storage: All | Status: All | Source: text or regular expression | Monitor: All

Width: auto | Height: auto | Scale: Auto | Layout: 3 Wide | EDIT LAYOUT