

# SENSORIZATION TOOLKIT

SMARTER MONITORING FOR SMARTER DECISIONS

## **SHORT DESCRIPTION**

The Sensorisation Toolkit is a plug-and-play, modular solution that brings precision and structure to PV system monitoring — from construction to long-term operations. Designed to meet the realities of field execution and the scrutiny of financial oversight, it delivers actionable data on soiling, irradiance, temperature, and degradation with minimal integration hassle. For PMs, it means fewer operational headaches and better project control. For FRs, it means proven ROI, lower O&M costs, and performance transparency. With robust hardware, flexible architecture, and portfolio-ready analytics, it turns raw data into reliable financial performance — without disrupting your workflow.

## **EXPECTED IMPROVEMENTS**

- +4.7% increase in energy production through optimized performance and loss identification
- > 32% reduction in O&M costs by streamlining inspections and maintenance
- Earlier detection of component failures and degradation trends
- More accurate forecasting and performance modeling across project phases
- Reduced cleaning costs through precise soiling measurement and campaign planning



## **MAIN BENEFITS**

#### For PMs:

- Simplifies deployment and integration with a standardized, all-in-one sensor package
- Reduces on-site issues with rugged, certified (IP65+) hardware and minimal maintenance
- Avoids complex procurement by offering a unified vendor solution

#### For FRs:

- Offers clear financial upside through improved yield and lower service costs
- Strengthens ROI cases with real data for performance guarantees and warranty claims
- Enables predictive maintenance and cleaner, data-backed reporting to stakeholders

# **USE CASES**



**During construction:** A PM deploys reference modules and soiling sensors across an irregular terrain PV plant. The toolkit delivers real-time validation of installation performance, helping prevent handover disputes and avoiding costly post-commissioning fixes.



For financial monitoring: An FR leverages the sensor data to track actual vs. projected output across a portfolio. An early dip in one site's yield leads to warranty activation on a batch of underperforming modules — saving thousands in potential losses.



For ongoing O&M: A service provider uses the toolkit's soiling data to dynamically schedule cleanings based on actual loss thresholds, cutting water and labor use by 25% without compromising output.

**Book your personalized discovery call here** 

