SMARTER FACTORY.
BETTER DECISIONS.
GREATER IMPACT.

EFORTECH
Technology for better

iEMS | OEE | AI Vibration

AI-POWERED
SMART MANUFACTURING



AI INSIGHTS
Smarter decisions with real-time intelligence.

Turn Data into Intelligent Actions



PERFORMANCE OPTIMIZATION
Improve OEE and productivity.

REAL-TIME MONITORING

AI-POWERED ANALYTICS

SMART AUTOMATION

SUSTAINABLE GROWTH



PREDICT & PREVENT
AI-powered predictive maintenance to reduce downtime and cost.

REAL IMPACT. MEASURABLE RESULTS.

LOWER DOWNTIME
Detect issues early and prevent unexpected stops.

OPTIMIZE ENERGY
Monitor and optimize energy usage to reduce cost.

IMPROVE PRODUCTIVITY
Maximize OEE and increase output consistently.

SUSTAINABLE OPERATIONS
Reduce footprint and build a smarter, greener future.



LET'S BUILD YOUR SMARTER FACTORY TOGETHER.

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FOLLOW US
Efortech Solutions

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Technology for better

NEW SOLUTION

iEMS Lite

by Efortech

AI-Powered Energy Management System

Turn energy data into smarter decisions.

Efortech iEMS helps you monitor, analyze, and optimize energy usage in real-time to reduce cost, improve efficiency, and achieve your sustainability goals.



Real-Time Visibility
Monitor energy consumption across all areas and equipment in real-time.

AI-Powered Analytics
AI detects anomalies and identifies opportunities to reduce energy waste.

Smart Reporting
Customizable reports and dashboards for better visibility and compliance

Energy Optimization
Optimize energy usage, lower operational cost, and support sustainability goals.

Integrated Solutions for Smarter Operations

Energy Management
Monitor and optimize power, water, gas, and carbon usage.

Vibration Prediction
AI-based vibration analysis for predictive maintenance.

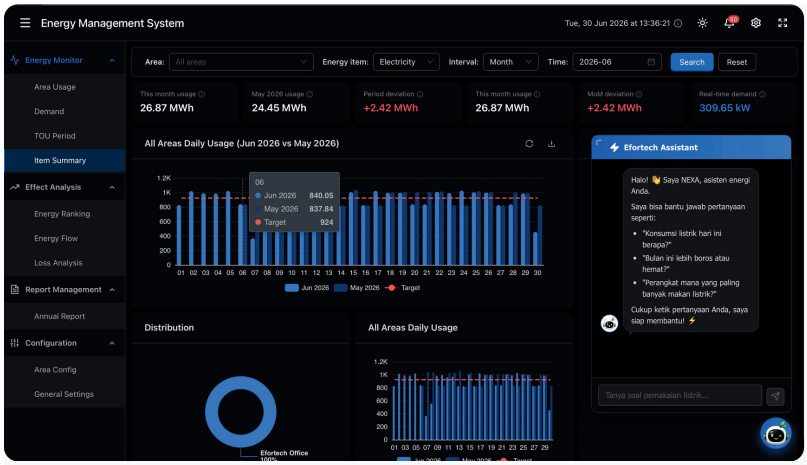
Centralized Situation Room
Connect all PLC, machine, SCADA, and sensor data in one visualization.

OEE Monitoring
Track machine performance and efficiency in real-time.

Web SCADA
Web-based SCADA with cloud & on-premise support.

Automation
PLC upgrade and modification SCADA.

One Platform, Compare Energy Intelligence.



FROM DATA TO SMARTER ENERGY DECISIONS

Reduce Energy Cost Up to
20%

Improve Operational Efficiency Up to
15%

Increase Energy Visibility Up to
100%

Support Sustainability Goals
Lower Carbon Footprint

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Scan QR Code To Learn More

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iEMS

Intelligent Energy Management System



Turn Energy Data into Real Impact

A unified platform to monitor, analyze, and optimize your energy, carbon, and equipment performance. Helping you achieve higher efficiency, lower operational costs, and a more sustainable future.

- Higher Energy Efficiency
- Lower Operational Costs
- Support Decarbonization
- Ensure Regulatory Compliance

Comprehensive iEMS Modules

Everything you need for smarter energy management

Energy Monitoring

- Real-time monitoring
- Sub-metering & KPI tracking
- Energy flow visualization
- Multi-site management

Energy Cost Management

- Track and allocate energy costs
- Cost breakdown by area
- Identify cost-saving opportunities

Energy Analysis & EnPi

- EnPi calculation (ISO 50006)
- Benchmarking
- Energy performance trends
- Custom KPI dashboard

Carbon Management

- Track emissions (Scope 1 & 2)
- Support ISO 14064 / 14067
- Carbon footprint reporting
- Reduction target tracking

Equipment Intelligence

- Monitor equipment energy performance
- Detect anomalies
- Predictive maintenance support

AI Analytics

- Energy forecasting
- Anomaly detection
- Optimization recommendations
- AI-driven insights

Reporting & Compliance

- Automated reports
- Customizable templates
- Support sustainability reporting
- Export & data integration

Alerts & Notifications

- Real-time alerts
- Custom alert settings
- Email / dashboard / mobile notifications
- Proactive issue handling

Utilities We Cover

Electricity · Natural Gas · Water · Steam · Other Utilities

Aligned with Global Standards

Support your sustainability journey with international standards.

International Organization for Standardization — ISO

ISO 50001
ISO 50002
ISO 50006

System Architecture

Seamless integration from field to insight

Data Sources

Meters & Sensors · PLC/RTU · Equipment · SCADA · IoT Gateway

iEMS Platform

- Data acquisition
- Data processing
- Data storage (On-Premise / Cloud)
- AI analytics engine

Integration Layer

ERP · MES · Third-Party System · API

Key Benefits

- Reduce energy cost
- Improve operational efficiency
- Support decarbonization
- Increase equipment reliability
- Data-driven decision making
- Achieve sustainability goals

From Data to Real Impact

01 Monitor — Collect real-time data from your operations.

02 Measure — Track energy use, carbon emissions, and key performance indicators.

03 Analyze — Turn data into meaningful insights with analytics.

04 Identify — Find opportunities for improvement.

05 Optimize — Take action and achieve measurable impact.

Applicable Industries

Flexible for various industries









Manufacturing · Energy & Utilities · Buildings & Commercial · Oil & Gas · Food & Beverage · Pulp & Paper · Pharmaceuticals

Let's Build a Smarter Future Together

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OUR SMART SOLUTION:

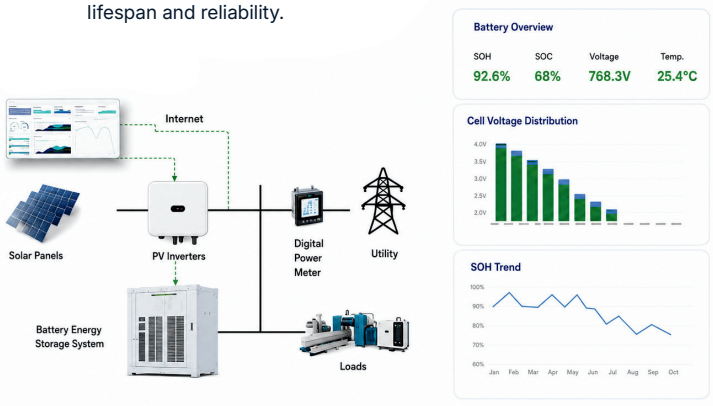
AIE-DR BESS FOR MAXIMUM SAVINGS

Smarter BESS Operations, Higher Reliability, Lower Cost

01 BESS ENERGY MANAGEMENT

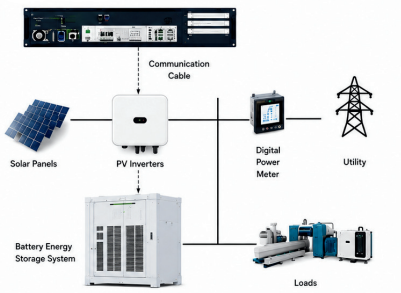
BATTERY HEALTH MONITORING

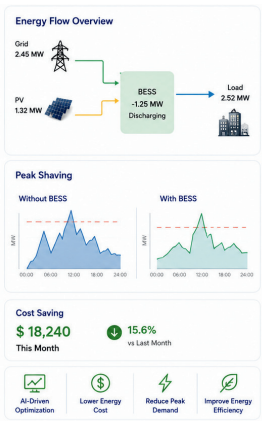
Monitor battery SOH, SOC, temperature, voltage, and operating conditions to maximize battery lifespan and reliability.



ENERGYSTORAGE OPTIMIZATION

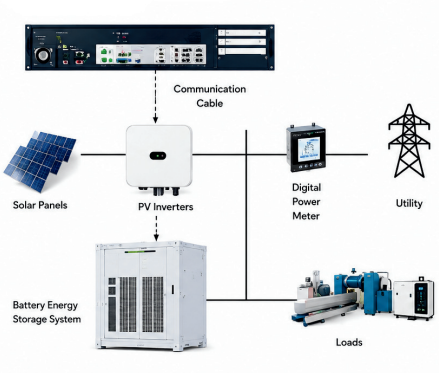
Optimize battery charging and discharging using AI-driven control to reduce peak demand, improve efficiency, and lower energy costs.





PREDICTIVE BATTERY MAINTENANCE

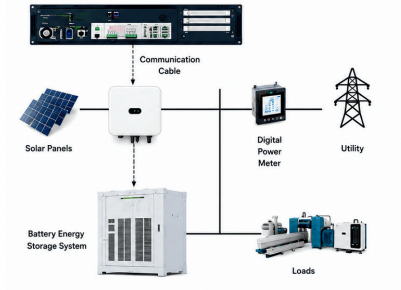
Detect abnormal battery behavior early using AI analytics to prevent failures, reduce maintenance costs, and improve system availability.

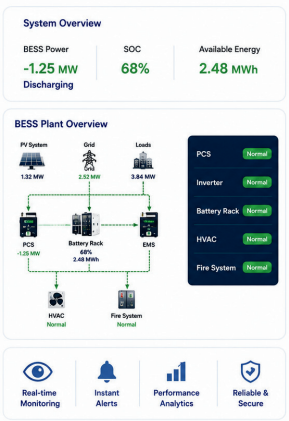




BESS MONITORING PLATFORM

Centralize monitoring of battery systems, PCS, inverters, EMS, HVAC, and sensors in one dashboard for complete operational visibility.





02 WEB-BASED SCADA

Manage real-time Progress and Enhance Productivity

Automation starts small but drives big impact.

Our Solutions gives real-time insights into equipment performance for better decisions and higher productivity.

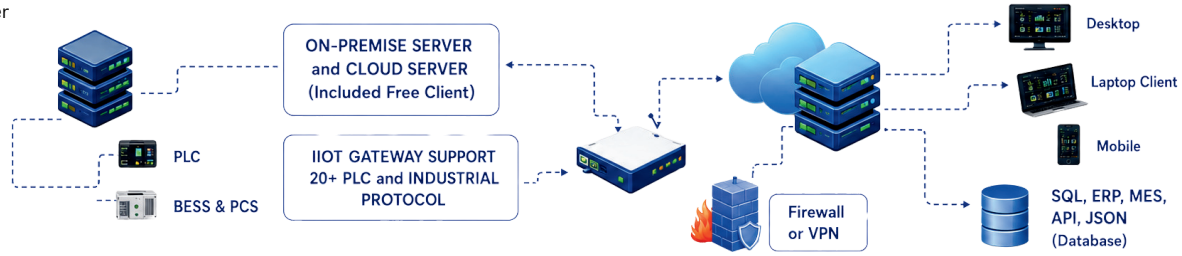


DASHBOARD SERVER
Real-time monitoring and data analysis accessible on any device (PC, Mac, tablet, smartphone).

CONNECTIVITY
Industrial communication via Ethernet, Wireless, or LoRa.

GATEWAY
Reliable gateway for secure data transmission and easy integration.

ALERT & NOTIFICATION
Instant alerts via email, SMS, or app for faster response and better action.



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VIBRATION FOR
PREDICTIVE MAINTENANCE

Detect early. Prevent failure. Maximize uptime.


Conveyor Motor


Industrial Blower Fan


Air Compression Motor


Water Pump



WIRELESS
Easy installation with no cables

LONG BATTERY LIFE
Up to 5 years battery life

RUGGED & RELIABLE
IP66 rated for harsh industrial environment

Smart Vibration Sensor

Compact • Wireless • Easy to Install

HEALTH MONITORING
Monitor equipment condition in real-time

OPERATION & MAINTENANCE
Simplify maintenance work and reduce downtime

DATA ANALYTICS
Turn data into insights for smarter decisions

PREDICTIVE MAINTENANCE
Predict failures before they happen and extend asset life

SUCCESS CASES

PT PETROKIMIA GRESIK

DCS Integration Energy and Safety Management System
Web Dashboard Analytic for Factory Centralized.

JBG
PT JORONG BARUTAMA GRESTON

Dewatering Pump Command Center
Integration existing dewatering pump with level and flow using cloud system

YKK
Little Parts. Big Difference.

OEE
(Overall Equiptment Effectiveness)
EMS
(Energy Management System)

INDOKEMIKA GROUP

Production Line Upgrade
Upgrade PLC and SCADA from 4 to 12 production lines.

wilmar

Machine Digitalization
PLC Modification
Upgrade SCADA and Modifications

MAP-I
MOLTEN ALUMINUM PRODUCER INDONESIA

Factory Energy Management System
Web Application to monitor electricity and Water Energy usage with a free client

Otsuka

SCADA and PLC Upgrade
Energy Management System Plant 1
Energy Management System Plant 2

PERUSAHAAN DAERAH AIR MINUM
SURYA SEMBADA
KOTA SURABAYA

Pump Station Command Center
Monitoring Pump Station and some sensors which are installed in different locations around the city.

biofarma
Member of Biofarma Group

IEMS Ecowatch
WAGES Energy Management System

LG Electronics

IEMS Ecowatch
WAGES Energy Management System

JFE

Vibration Analysis
Integrate vibration sensor to web-based SCADA

IST

Factory Energy Management System
Web Application to monitor electricity and Water Energy usage with a free client

Dexa Medica
Expertise for the Promotion of Health

Scada Enviroment Monitoring

meiji

- Solar Tank Monitoring
- SCADA Water Treatment Plan
- Automation Maintenance

LNK

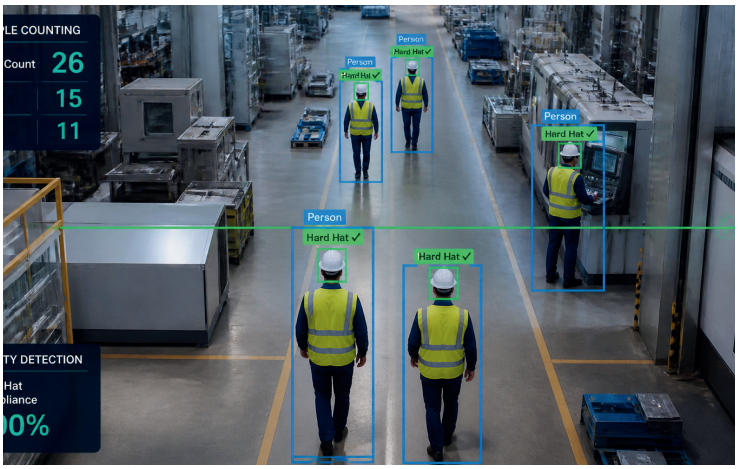
Scada Filling Machine Upgrade and Migration

NEW SOLUTION

AI VISION

AI-Powered Computer Vision

Comprehensive AI analytics for people, faces and objects. Seamlessly integrates with your existing CCTV via RTSP, accelerated by OpenVINO on Intel, NVIDIA and Hailo edge devices.



Existing CCTV | Real-time Alerts | Edge AI | Privacy Mode

3 Preloaded AI Modules

01 People Vision
Real-time people counting

- Bi-directional people counting
- Tracking prevents double counts
- Queue length analysis
- Custom zone triggers
- Footfall reports for staffing & layout

02 Face Vision
Facial landmark analysis

- Face recognition, up to 10,000 profiles
- Age, gender & mood estimation
- Visit frequency tracking
- VIP, Staff, Visitor & Blacklist groups
- Data-only privacy reporting

03 Object Vision
Real-time object analysis

- Hard hat & PPE detection
- Traffic item detection
- Hand gesture recognition
- Predefined object tag categories
- Instant alerts on safety violations

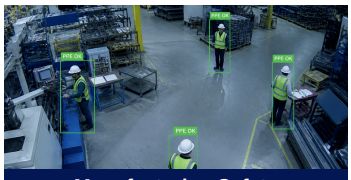
Key Features

✓ CCTV Integration: connects to existing IP cameras (RTSP)
✓ IoT Connectivity: RESTful API & HTTP commands
✓ Role-Based Access: admin, default & custom groups
✓ Privacy Mode: data-only reporting protects identities
✓ Multilingual Web Portal: EN, CN, JP, KR
✓ Flexible Deployment: Ubuntu, Windows, VMware, Hyper-V
✓ Secure: hardened HTTPS & renewable login token

Smart Alerts & Automation

- Real-time push alerts via iOS/Android app & email
- Scheduled alerts for routine checks
- Rules by video source, time period or ROI/POI
- Trigger HTTP commands, IO Box or Wiegand Box
- Alerts for VIPs, staff, visitors or blacklist
- Filter reports by camera, time, tag or group
- Export reports to Excel or HTML

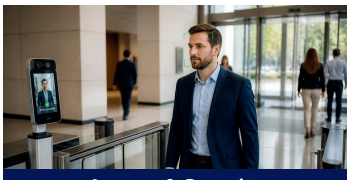
Applications



Manufacturing Safety
PPE & hard hat compliance



Retail & Footfall
People counting & queue analysis



Access & Security
Face ID, VIP & blacklist alerts



Traffic & Logistics
Vehicle & traffic item detection

Edge AI Hardware
Advantech UBX-330M, Intel Core Ultra 5, up to 10 camera channels

AI Acceleration
OpenVINO on Intel, NVIDIA & Hailo edge devices

Notifications
iOS & Android mobile app, email, scheduled alerts

Face Database
Up to 10,000 face profiles, tags & groups

EFORTECH
Technology for better

Integrated Smart Factory Solutions

One Platform

for a Complete Smart Factory

Efortech connects your machines, energy meters, sensors and cameras into one intelligent platform. Monitor in real time, predict problems before they happen and make faster, data-driven decisions.

iEMS | OEE | SCADA | AI Vibration | AI Vision

Trusted by industry leaders such as YKK, Wilmar, LG Electronics, Otsuka & Meiji



Our Integrated Solutions

AI Energy Management

Cut energy cost up to 20%

- Power, water, gas & steam
- Carbon tracking (Scope 1 & 2)
- ISO 50001 & EnPI reports
- AI anomaly & forecasting

OEE Monitoring

Maximize productivity

- Availability, Performance & Quality
- Real-time machine status
- Downtime & loss analysis
- Shift & line reports

Web-based SCADA

Monitor & control anywhere

- Cloud & on-premise
- PLC & IoT gateway integration
- Dashboards on any device
- Alerts via email, SMS & app

AI Predictive Maintenance

Prevent downtime

- Wireless vibration sensors
- Up to 5-year battery, IP66
- Early fault detection
- Extend asset life

AI Vision

Safer, smarter operations

- People, face & object AI
- PPE & hard hat compliance
- Uses your existing CCTV
- Real-time alerts

How It Connects

Your Data Sources
PLC & machines • Energy meters
Vibration sensors • CCTV cameras
SCADA / DCS • IoT gateways

→

Efortech Platform
Edge AI • Web SCADA • AI Analytics
Cloud or on-premise deployment
Secure, role-based access

→

Business Outcomes
Real-time dashboards • Alerts
Reports & ISO 50001 compliance
ERP / MES integration

Industries We Serve



Manufacturing | Energy & Utilities | Buildings | Oil & Gas | Food & Beverage | Pulp & Paper | Pharmaceuticals

✓ One Integrated Platform
✓ Works with Existing PLC, SCADA & CCTV
✓ Cloud or On-Premise
✓ Local Teams in Surabaya, Bandung & Jakarta

20% Lower energy cost (up to)

15% Higher operational efficiency (up to)

100% Energy visibility across your plant

5-in-1 Smart factory solutions in one platform

Start with one solution, then scale as you grow. Book your free demo today!

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PEOPLE | TECHNOLOGY |
A SUSTAINABLE TOMORROW



LET'S BUILD A SMARTER FACTORY TOGETHER.

Turn data into intelligent actions for a more efficient, reliable, and sustainable future.

iEMS
Energy Management System

OEE
Operational Excellence

AI Vibration
Predictive Maintenance

SCADA
Real-time Monitoring and Control

AI Vision
Intelligent Visual Inspection

Scan to Connect with Us

Industrial Intelligence for a Sustainable Tomorrow

Efortech delivers integrated industrial digital solutions to help businesses operate more efficiently, reliably, and sustainably.

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