

itZORIX

Infinite innovations

Transforming Industry with AI, Automation & Digital Engineering

**Advanced solutions for intelligent operations, renewable energy,
and scalable digital systems.**

itZorix delivers applied AI, industrial intelligence, software engineering, and power systems innovation for modern enterprises and critical operations. We help organizations move from ideas to deployable systems with measurable business and operational value.

Our Core Capabilities

1. AI & Machine Learning for Industrial Operations



Vision inspection, predictive models, and anomaly detection — deployed in live production, not just pilots.

2. Governed Knowledge Intelligence (KIP™)



Domain-grounded LLM and RAG assistants purpose-built for regulated, technical organizations.

3. Industrial Automation & Systems Integration



SCADA/PLC integration, edge intelligence, and industrial IoT for real-time operational control.

4. Power Systems & Renewable Energy Analytics



Grid studies, renewable forecasting, and PSCAD®/PSS®E-based power system analysis.

Featured Industry Solutions



**AI-Powered Medical Glove
Inspection & Automated
Rejection**



**Scalable Solar Power
Forecasting for Sri Lanka**

Innovate. Automate. Forecast. Scale.





WHERE WE ARE

The itZorix Knowledge Intelligence Platform (KIP™)

KIP™ is built on four pillars — each one addressing a specific way regulated, technical organizations lose trust in AI-generated answers.

R

RAG Pipelines

Multimodal retrieval built for irregular domain content — engineering drawings, SOPs, incident reports, regulatory text, and imagery.

G

Governance

Access control and policy across OT/IT boundaries, mapped to real compliance frameworks.

A

Auditability

Full provenance on every answer — source document, version, and retrieval trail, by design.

T

Reasoning

Bounded, multi-hop inference across documents, sensor data, and history.

What We Deliver



Governed AI for Energy & Power Generation
(Forecasting, RE Integration, System Control products)



Governed AI for Industrial Automation



Governed AI for Regulated Enterprises



Power System Studies
PSCAD®, PSS®E

Why itZorix



Applied AI for real-world deployment



Industrial and infrastructure domain expertise



Scalable digital engineering capability



Data-driven decision support



Case Studies

Case Study 01



AI-Powered Medical Glove Inspection & Automated Rejection

Powered by the itZorix Knowledge Intelligence Platform (KIP™)

In medical glove production, manual visual inspection can miss defects due to fatigue and inconsistency. itZorix designed an in-line AI vision system that inspects every glove and automates reject decisions in real time.

Key Capabilities

- ✓ Controlled-lighting industrial cameras cover the full glove surface.
- ✓ Deep-learning inference runs on NVIDIA Jetson edge units at the line.
- ✓ Automated rejection is synchronized precisely with conveyor timing.
- ✓ Detects bead/finger damage, holes, scum, oil marks, dirt and other surface defects.
- ✓ Live event logging plus predictive analytics reveal upstream process trends.



Higher Consistency
Uniform quality



Rejection Accuracy
Fewer rejects



Root-Cause Visibility
Process insights

Case Study 02



Developing a Scalable Solar Power Forecasting Solution for Sri Lanka

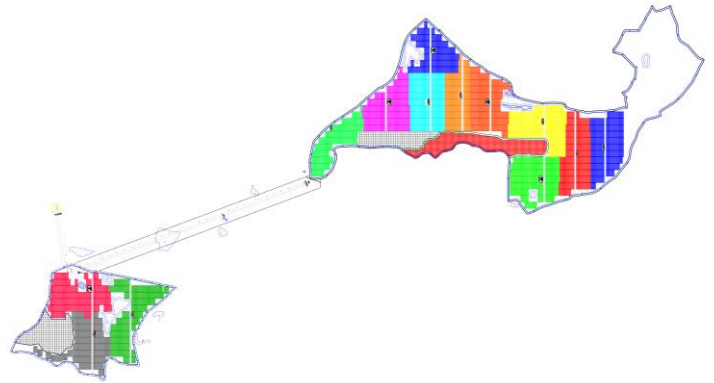
Pilot Project on Ethimale Power Plant

itZorix is developing an intelligent solar forecasting solution for the Ethimale Plantation solar facility, combining plant telemetry, numerical weather predictions, satellite data and solar-position parameters for Sri Lanka's rapidly changing tropical weather.

Solution Highlights

- ✓ Reliable intraday and day-ahead forecasts of solar irradiance and power generation.
- ✓ Data-quality monitoring for robust analytics and dependable inputs.
- ✓ Statistical and machine-learning models generate production forecasts.
- ✓ Performance evaluation uses MAE, RMSE, MAPE and bias.
- ✓ Supports energy scheduling now and a scalable forecasting framework across Sri Lanka.





Case Study 03

Power Systems & Grid Impact Studies

Grid-code compliance studies for BESS, solar and wind projects — PSS®E and PSCAD/EMTDC modelling, done right the first time.

Every 10MW/40MWh BESS block in Sri Lanka's 250MW national storage tender — and every solar or wind IPP connecting to the CEB/NSO grid — now needs a site-specific dynamic model, fault-ride-through validation and grid-code compliance package before commissioning. These studies are bid-critical and schedule-critical: get them wrong, or get them late, and the interconnection date slips.

Our Power System Studies Capability

- Load flow analysis
- Short-circuit / fault-level analysis
- Dynamic stability & EMT studies (PSS®E, PSCAD/EMTDC)
- Harmonic & flicker analysis
- Inverter / power-plant-controller modelling & tuning
- Grid code compliance assessment (LVRT/HVRT, frequency & voltage response)
- Mitigation design (FACTS, curtailment, ramp-rate control)
- Protection coordination & SCADA / IEC 60870-5-104 interface engineering

Leadership & Contact

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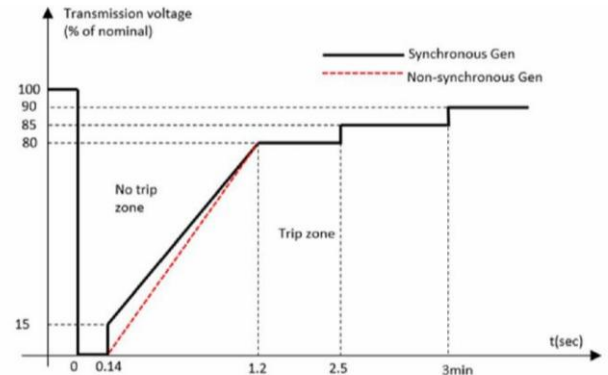
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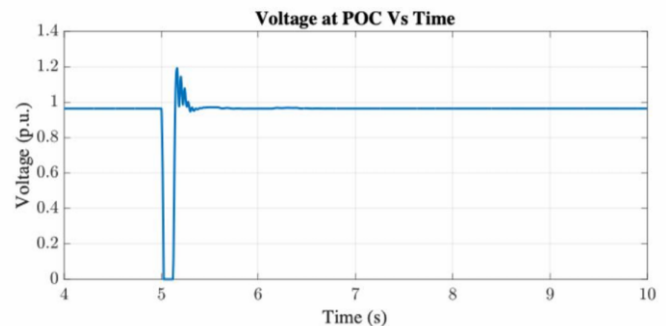


Scan for company contact



Fault Ride Through requirement — Voltage duration curve [Grid Code]

Actual EMT simulation — our plant model's voltage at point of connection through a balanced 3-phase fault (PSCAD/EMTDC)



The Sri Lanka Grid Code's fault ride-through requirement — the compliance target every study is validated against.

Sri Lanka's largest utility scale solar development

DC Capacity: 151 MWp

PV Modules: 212,520

Central Inverters: 14

Our Role: Owner's Engineer

Scope: 132kV substation design + PSS®E/PSCAD grid studies