



REDEFINING
TECHNOLOGY,
CREATIVELY

Predictive Analytics in IOT

Case Study



Plant Overview

Plant Overview



Realtime - last minute



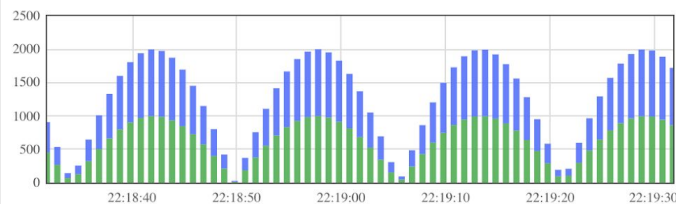
Power Generated

14 MWh

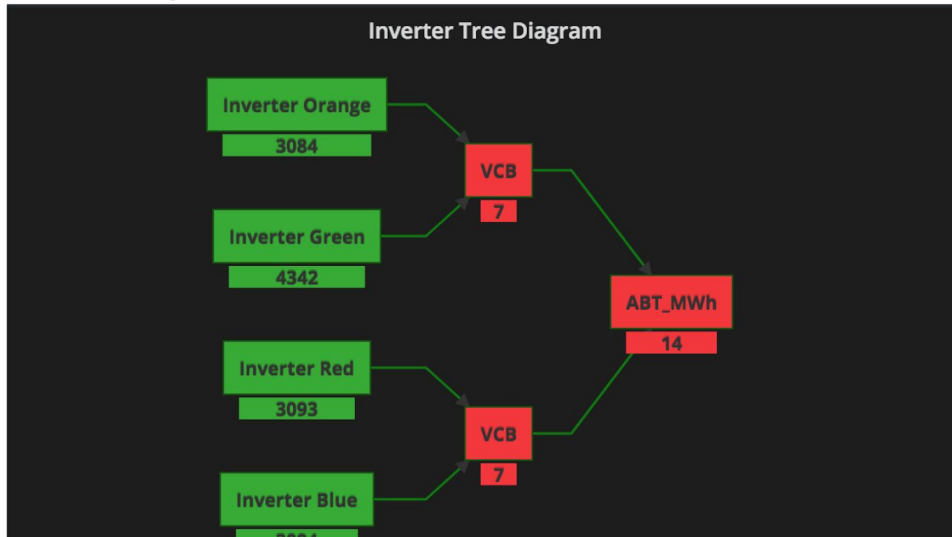
Predicted Generation

16 MWh

Actual vs. Predicted



Inverter Tree Diagram



Alarms

Realtime - last day

<input type="checkbox"/>	Created time	Originator	Type	Severity
<input type="checkbox"/>	2019-03-06 22:19:18	Simulated	TEMPERATURE	Major

1 - 1 of 1



Powered by IOTBoard v.2.2.1

What is Predictive Analytics in IOT?

The process of analysis on a continual basis to have continuous machine/device health monitoring and preempt catastrophic failure, is what we call Predictive Analytics in IOT or “Predictive Maintenance”.



Analysis Techniques

1. Rule Base Analytics
2. Statistical Analytics
3. Predictive Analytics
 - a. Machine Learning Based
 - b. Deep Learning Based



Rule Based Models

IoTBoard supports rule based models where one can set rules to throw alarms based on strict conditions. Since we already know a lot of information about the system and operation conditions for the same rule based alarms help with generating alerts for devices, without much of prerequisite.



Statistical Models

Statistical models are models based on constrained data and simple mathematics. These can be implemented with small data and doesn't need much of learning to be done.

Simple models come in handy to perform forecasting of data points.



Predictive Models

Our team of datascientists were able to build predictive models for and Inverter health prediction on a solar power plant.

It helped the operational team to improve the efficiency of the plant by 10%.



How it Works?

IoTboard allows pluggable modules which allows to add features to iotboard in a ad-hoc manner.

A team of data scientists work on data models and build statistical and ML models to enable predictive capabilities to the IoTBoard implementation.





Thank You!