



FORECAST YOUR CAST

CONNECT

CALIBRATE



CORRELATE

COMMUNICATE



**JOURNEY TOWARDS
A BETTER WORLD
THROUGH
TECHNOLOGICAL
SINGULARITY**



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**DYNA4CAST
TECHNOLOGIES**

SMART-FOUNDRY & FEATURES

MACHINE &
OPERATION
MONITORING

BREAKDOWN
MONITORING

MAINTENANCE
MONITORING

OEE
INDEX

TRACK
RAW MATERIAL
INVENTORY

SPECTRO
QUALITY
ANALYSIS

IN
PROCESS
QUALITY

VISION
ASSISTANT

AI & ML
SUGGESTION

AR/VR
MAINTANANCE

ABOUT US

In our journey, we offer fireman's lift to our customers by fetching, storing, analyzing and acting upon their real-time data to create a business environment where employees enjoy stress-free and joyful work environment where clients are highly satisfied through quality and on-time delivery and shareholders get a one-way ticket for profitability.

WE CREATE
TECHNOLOGY TO HELP
THE WORLD PREPARE
FOR THE FUTURE.

OUR SOLUTIONS

IIOT FOR FOUNDRY INDUSTRY

Integration of Furnace, Casting unit to monitor productivity, Spectro integration for quality control, Field level weighing machine to track consumption of raw materials. Other consumable accountability & tracking, ERP Integration, Production Breakdown Alert, Andon monitoring

IIOT FOR SHOP FLOOR

Intregation of Machines like CNC, VMC, HMC, SPM & fabrication machine to monitor the real time OEE, Target, Downtime, Maintenance, Andon Board Monitoring, ERP Integration

IIOT FOR PROCESS INDUSTRY & POWER PLANTS

Integration of field level sensors (Cyber Physical System) like Vibration, Pressure, Wireless Temperature, Crack detection using pzt sensor, Oil & Gas level monitoring, Wireless data transfer, ERP Integration and data analytics

DYNA FRAGMENTS

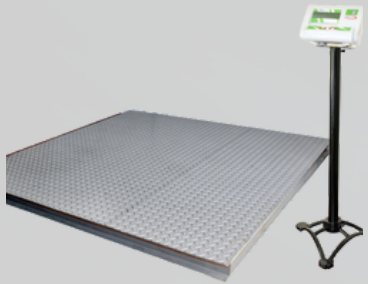
SOME FIELD MACHINES



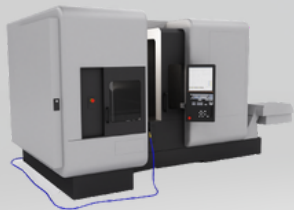
FURNACE



SPECTRO



WEIGHING SCALE

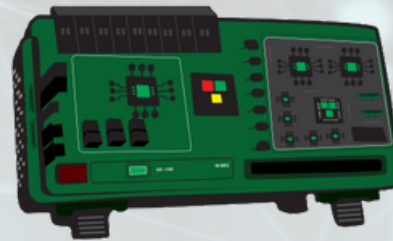
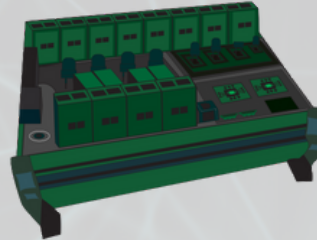


CNC



ROBERT

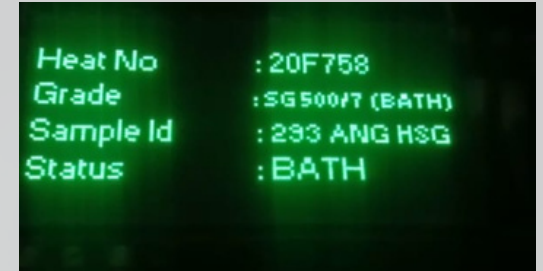
DYNA HARDWARE
SANCTANCE & XINTEL



COMMUNICATION
CAPABILITIES



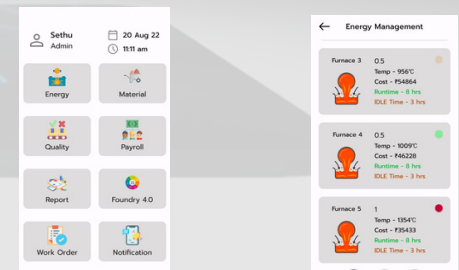
DYNA BOX
ANDON MONITORING



DYNA ASSIST DASHBOARD



DFM 4.0



CASE STUDY-1 BARANI FERRROCAST [FOUNDRY]

DYNA ANDON DISPLAY FOR REAL TIME MONITORING



- TO MONITOR RAW MATERIAL CONSUMPTION
- REAL TIME METAL CHARGING FROM QUALITY LAB
- PRODUCTION DATA TARGET AND ACHIEVED

SPECTRO INTEGRATION FOR QUALITY CONTROL ANALYSIS



Dyna Assist

Furnace Id A Melt No 310 Status BATH1

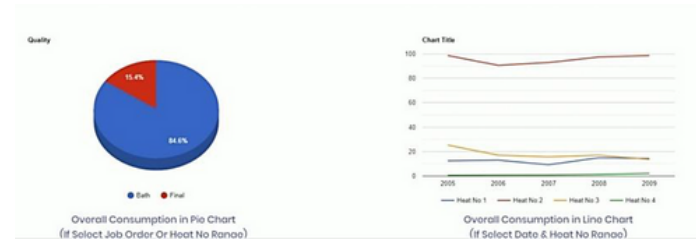
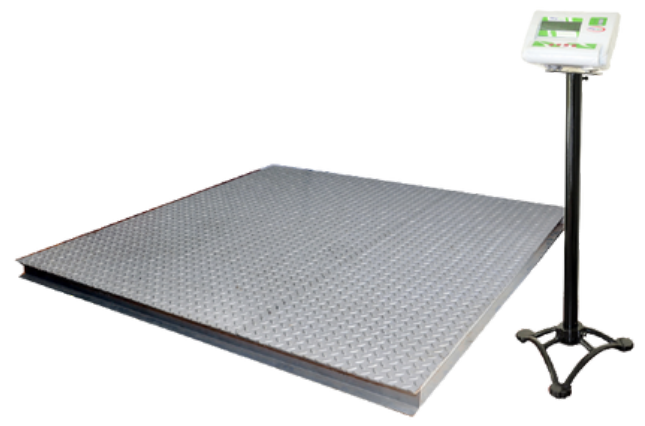
Heat Details 21L769/D45 HSG FG200/D4 ELEMENT

| Element | Range Limit | Is in Range | Range Difference | Actual (%) |
|---------|-------------|-------------|------------------|------------|
| Cr | 0 - 0 | No | -0.14 | 0.14 |
| Cu | 0 - 0 | No | -0.42 | 0.42 |
| Sn | 0 - 0 | No | -0.05 | 0.05 |
| Mg | 0 - 0 | No | 0 | 0 |

| Addition Materials | |
|--------------------|---------------|
| Material | Quantity (kg) |
| HMS | 75.24 |
| C | 2.45 |
| Si | 11.05 |

Accept

WEIGHT INTEGRATION TO TRACK RAW MATERIAL CONSUMPTION



CASE STUDY-2 SAKTHI AUTO COMPONENTS [FOUNDRY]



DYNA ASSIST FOR OEE, PREDICTIVE & CONDITION MONITORING

- Real-Time Monitoring for Furnace
- Spectro Integration
- Quality Condition Monitoring
- Digital Twin Modelling
- Breakdown Alerts & Notifications
- Downtime tracking and Authentication



CASE STUDY-3 CAST HOUSE HINDALCO [FOUNDRY]



DYNA ASSIST DASHBOARD WITH DYNA HARDWARE INTEGRATION

- Real-Time Monitoring of raw material consumption
- No of Ingots cast in the specific line
- Condition Monitoring
- Energy monitoring of the furnace
- Quality monitoring from the Spectro integration

Hindalco Aluminium
Cast House monitoring



CASE STUDY 4 - PROCESS PLANT (TOTAL & HERO MOTOR)



The proposed system is to analyze and predict oil consumption in automobile manufacturing industries.

Keeping in mind the uncertainty in production planning, this system has been developed to adapt and find patterns in the history of production thereby predicting the production of automobiles in the future. Since the oil consumption is directly proportional to the production of vehicles, we have considered the production base as the determining factor.

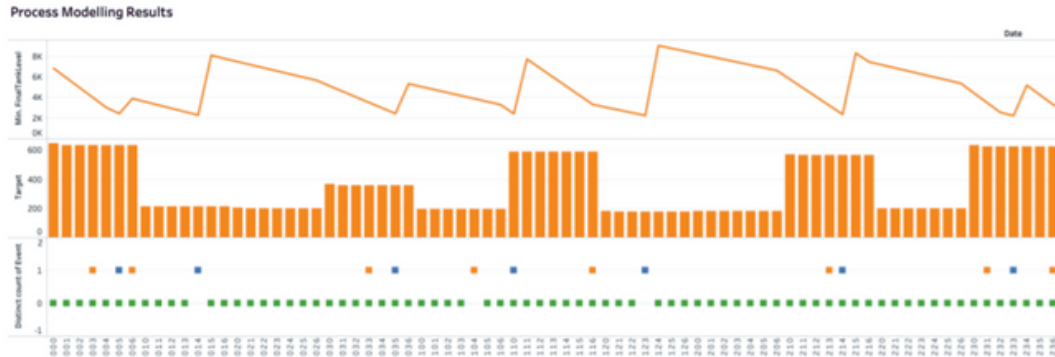


Fig 3.3 Process Modelling results

The image below shows how machine learning and neural network algorithms like Multi-output classification, Artificial neural networks, recurrent neural networks are used to find existing patterns and generate new outcomes of the same.

The chart displays three different categories. The bottom one displays the fuel order status wherein the green signals that the fuel tank hasn't reached the low limit, Orange displays that automatic notification has been sent to the supplier, blue denotes that the tank has been refilled center chart displays the production targets set for the unit (on a daily level). The topmost chart displays the pattern in which oil is consumed from the tank

All the three charts are dependent on each other and hence finding the pattern in one can result in predicting the other two as well

DIGITAL TWIN FOR PROCESS PLANT TO FRAME CONDITION MONITORING

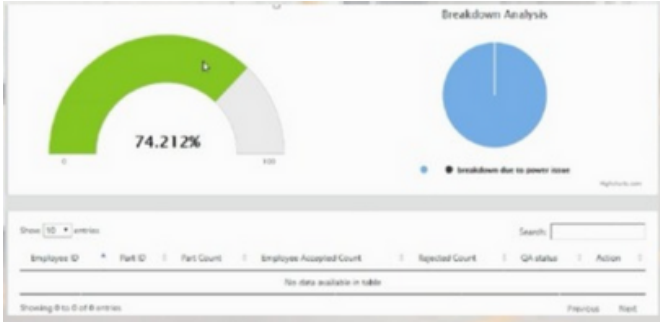
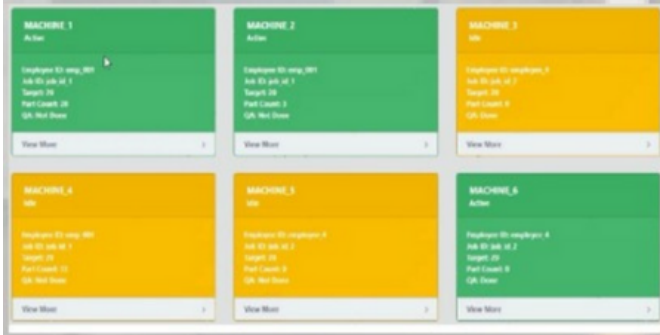


CASE STUDY 5 - CRI PUMPS [SHOP FLOOR]



- Real-Time Monitoring for Machine & Line
- Predictive Maintenance
- Condition Monitoring
- Employee Performance Tracking
- Breakdown and Alerts & Notifications
- Downtime tracking and Authentication
- Dyna Assist for OEE, predictive & condition monitoring

INTEGRATED HMI FOR FIELD MACHINE TO TRACK OEE EMPLOYEE & WORK ORDER



OUR EXECUTIVE TEAM



PRANESH MURUGANANDHAM
DIRECTOR & CBDO

MASTERS IN INNOVATION MANAGEMEN, GERMANY
EXPERTISE AREA: BUSINESS MODEL, CROSS
COUNTRY STRATEGY, TECHNOLOGICAL
MANAGEMENT, IIOT APPLICATION



PUVIYARASAN MADURAIPANDIYAN
DIRECTOR & CEO

MASTERS IN MECHATRONICS & CONTROL SYSTEM,
CORPORATE LAW, GERMANY
EXPERTISE AREA: CYBER PHYSICAL SYSTEMS,
ADVANCE CONTROL SYSTEMS, IIOT ARCHITECTURE



AMRISH KULASEKARAN
TECHNICAL LEAD

MASTERS IN FUTURE NETWORKED SYSEMS,
IRELAND
EXPERTISE AREA: FULL STACK, DEVOPS BUILDING,
SOFTWARE ARCHITECTURE, AI & DATA ANALYTICS



HARIHARAN GUNASEKAR
CTO

MASTERS IN SPACE ENGINEERING, GERMANY
EXPERTISE AREA: AEROSPACE & SATELLITE
BUILDING, ADVANCE HARDWARE ARCHITECTURE
BUILDING, ADVANCE COMMUNICATIONS



MANI SHASTHA SELVARAJ
CMO

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CASTING, NEW PRODUCT DEVELOPMENT &
TECHNICAL MARKETING, LEGAL ADMINISTRATION



NAVEEN BABU KARUPPANNASWAMY
STRATEGIC ADVISOR

MASTERS IN INDUSTRIAL ENGINEERING, USA
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MANUFACTURING TECHNOLOGY, FOUNDRY TECH,
STRAEGIC DEVELOPMENT

DYNA INTEGRATION



ORACLE



CONTROL SYSTEM INTEGRATION



OUR RESPECTIVE CLIENTS



**SAKTHI
AUTO COMPONENT
LIMITED**



BARANI HYDRAULICS INDIA Pvt Ltd.
Manufacturers and Exporters of hydraulic press



ELOI
Consulting

ADITYA BIRLA



HINDALCO



C.R.I. PUMPS
Pumping trust. Worldwide.



TOTAL



VIT

Vellore Institute of Technology
(Chartered to be University under section 12 of U.A. Act - 1956)



LIPPERT

OUR TESTIMONIALS

Mr. Ram Prasanth

Product manager, technix
Automation
[Nirmal pumps Pvt.Ltd]

"We are using Dynatral solution for almost a year to monitor the CNC machines, So far it has been an effective assist system for the production supervisor even in his absence to track the productivity, reason and other factors. More than that, through analysis the solution helps to find the right person for the job, which helps to increase the productivity".

Mr. Srinivasan

Assistant General Manager,
Sakthi Auto
Components Limited

"Dyna4Cast helps us keep our customer promise in terms of Quality Assurance. It brings more value to our in-house operation. Also, the team Dynatral is available and supports the cause in the level of urgency".

Mr. Naveen Babu

Managing Director, Barani
Hydraulics Pvt.Ltd

"Considering Dyna4Cast Solution is one of our strategic moves to adopt the next industrial wave. It tends to analyze the variation in KPI'S. Apart from that, live monitoring helps to bring the continuous improvement on the workforce".

OUR LOCATIONS & DETAILS TO REACH US



Head Office: Chennai
Mathuranthakam,
Kancheepuram - 603306

Manufacturing Unit: Erode
Kongu Engineering College
Erode - 638060

Development Office:
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Saravanampatti
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Marketing Office: Salem
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