

UDYAM 4.0

Smart Manufacturing Forum

Enables Incredible Machines to co-create solution for the Smart Monitoring of Machines

About Incredible Machines

Incredible Machines is a machine manufacturer and supplier of hydraulic press machines for various operations such as sheet metal forming, hot and cold forging, automotive interior forming, powder compacting, automation, and special purpose machines. The company delivers machines with various metal forming applications to Pan India as well as the Global market.

Established in 2003, the Company is located in Rajkot district of Gujarat with a plant spread across 60,000 sq. ft. The Enterprise is connected with ERP and also equipped with inhouse R&D and Design team.



Highlight



300+

Happy Clients



150+

No of Employees



900+

Completed Projects

Background: The problem that manufacturer was facing

In addition to manufacturing, the company also provides after sales and maintenance support post the delivery of the machines to the customers. Breakdown in machines is inevitable if proper maintenance schedule is not managed. The company used to get the after sales calls for resolution of issues such as disruption in initiating machine program, abnormal noise from machine causing machine to put off etc. Lot of resources used to get consumed in the aftersales services and resolution of complaints. It also resulted in addition of the operational cost to the company.

The concept: Smart Monitoring of the machine

The solution monitors certain parameters of machine such as vibration, noise, speed, temperature, power consumption etc. and notifies the owner in case of any anomalies which can result in breakdown of machine if not addressed on time.

The approach comprises retrofitting of sensors on the machines for monitoring these parameters which will be used as an input for the Artificial Intelligence based system to track the anomalies.



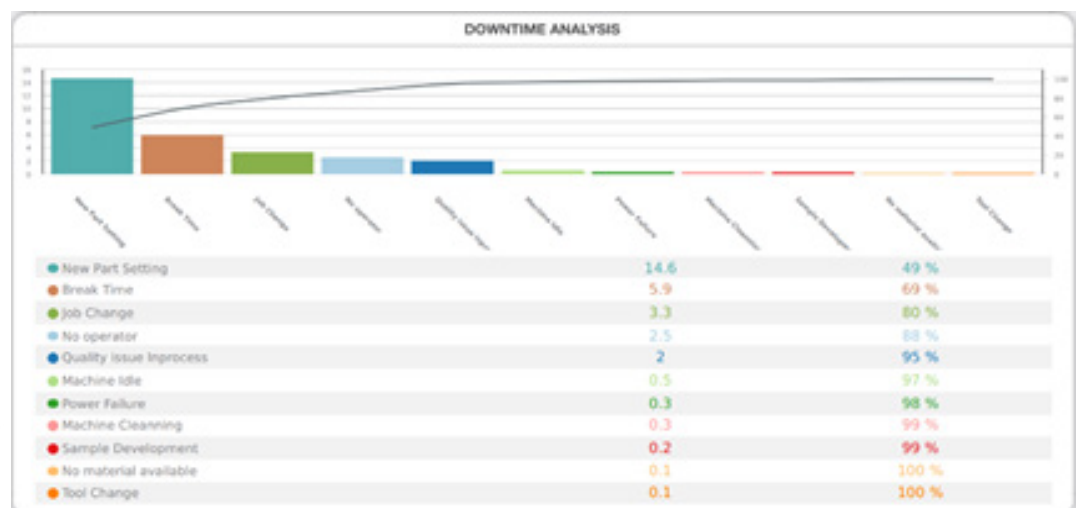
The software will also show machine data on dashboard on real time basis, which will enable the end user to estimate the efficiency of the machine, plan the production schedule and maintain the health of the machine.

Role of NASSCOM CoE – The enabler

The Gandhinagar CoE team visited the manufacturing plant at Rajkot, assessed the key challenges faced by the manufacturer in the plant and made the manufacturer aware about the Industry 4.0 solutions that can help in improving efficiency and reduce operational cost in the plant. From the discussion, the company came to know about the solution for smart monitoring of the machines and how it can help to reduce the operational cost after the sales of the machine to the customer.

Through CoE Manufacturer got connected with few start-ups providing low cost and easy to deploy solutions for smart monitoring of the machines and deployed the solution in one of the machines as a Proof of Concept.

Photograph of the solution and Machine



Outcome and way forward

After Configuring the IoT device with the machine, the manufacturer observed the downtime reduced by 40%. The customers using the machine are getting real time data of Production Efficiency. Incredible Machine is looking forward to deploy the solution in other machines which are used in standard applications, in near future.

NASSCOM CoE is a digital India initiative from Ministry of Electronics and IT and Government of Gujarat created to build an ecosystem for manufacturing digitisation in the country.

To know more about our initiatives write to us at

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