

# Smart Manufacturing Forum

enables Hemtech Industries to deploy energy management solutions by working with Autobits

## About Hemtech Industries

Hemtech Industries is part of **Hemlon Group**, Ahmedabad. They produce high-quality, vibrant, and fashion-forward Polyester filament yarns for use in apparel, denim, bottoms, automobiles, home furnishings, industrial, and apparel markets. Their state-of-the-art vertical manufacturing facilities have led them to produce some of the world's best yarns.

## Problem Statement

Hemtech Industries experienced significant energy usage from their air compressors and texturizing machines. Fluctuations in power supply resulted in substantial production losses and degradation of materials, as well as damage to the electronic boards and cards controlling the machinery. Energy consumption was recorded by hand and entered into an Excel sheet, with no analysis performed to identify consumption patterns. Additionally, low power factor values and harmonic generation further contributed to high energy usage.

## The Solution Concept

Autobits designed the technical architecture of the plant and suggested the network route which helped them to connect all these assets with their IIoT gateways, Digital Energy Meters, and the server. In a span of 45 days, Autobits successfully linked 16 digital meters and 7 compressors to their IIoT platform to produce suitable reports for management. Interactive dashboards, downtime alerts, and critical analytics with KPIs were made available to them.

## Role of NASSCOM

The NASSCOM Center of Excellence team visited the Hemtech factory to examine their manufacturing process and evaluate the existing challenges and potential for digitalization. The CoE team suggested multiple possibilities for digitalization and prioritized an energy management solution due to the rising energy consumption per unit of production. During implementation, the CoE team facilitated Hemtech's connection with Autobits and provided ongoing mentorship and supervision to ensure smooth deployment.

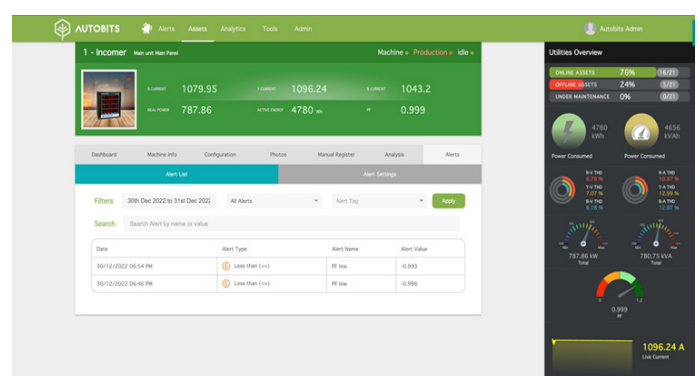
## Key Highlights

- Integration of Industrial Assets with IIoT platform, Gateway, and Cloud
- Anomaly detection in energy flow & utilization
- Dashboards with KPI visualization (Floor wise, Machine wise, Electric Panel wise)
- Alerts/ Notifications when an anomaly is detected
- Production power cost vs Output in Kg
- Power health (PF, Voltage & Harmonics)
- Monitoring of compressor pressure
- Managing & observing air pressure in respective tanks

## Business Outcome

- It will have a significant reduction in energy bills
- Realtime energy data and track of PF and harmonics
- Leak detection and fluctuation detection
- Power utilization within the given supply limit.

## Realtime Machine View With Live Data



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.

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