

An IIT Madras Incubated Company

PREVENT UNPLANNED DOWNTIME

The Disruptive Ultrasonic Waveguide Technology

Powered By AI & IIoT

MALLAN





















About us

XYMA Analytics is a deep-tech company started from IIT Madras to help industries achieve new levels of efficiency and precision using patented Ultrasonic Waveguide Technology. The IoT enabled sensors can provide continuous remote multi-point and multi-parameter measurements across refineries, power plants and manufacturing units with AI-enabled predictive maintenance to enhance asset life and worker safety.

50+

Years of Industrial Experience 20+ Engineers from Premier Institutes like IITs and NITs

15+ Intellectual Properties

"Process efficiency is our priority"



Increase in efficiency, production and asset life



Reduced power consumption



Designed for hostile and hazardous environment

Improving Productivity Across 10 Industries





















μTMapS & μSTMapS

Multi Point Temperature Mapping Sensor

Invasive and Non-Invasive

 μTMapS and μSTMapS are robust high-temperature monitoring sensors that are capable of multi-point measurements in a single waveguide sensor. Combined with our AI - powered soft sensors, they provide 3D temperature profiles of any assets.

Specifications



Functions : Measures Unit Temperature (μTMapS), Skin Temperature (μSTMapS)



Measuring range: Temperature: 25 °C to 1450 °C



Resolution: Temperature: 0.01 °C



Accuracy: Temperature: ±1°C



Power Supply: Compatible with Industrial Standards

μTMapS & μSTMapS: Application



Pot health monitoring



Furnace tube skin temperature monitoring



Continuous temperature monitoring of Pedestal

uTMapS



PoRTS is a multi-parameter measurement sensor to continuously monitor viscosity, density and temperature of a fluid with high reliability and precision using a single ultrasonic waveguide. This unique feature leaves a small footprint in any process unit.

Specifications



Functions: Measures Viscosity, Density and

Temperature



Measuring range: Viscosity: 50 cP - 15000 cP,

Density: 700 kg/m3 to 1200 kg/m3, **Temperature:** 20 °C to 400 °C

Resolution:

Viscosity: 10 cP,

Density: 1 kg/m³, **Temperature:** 0.1 °C

Accuracy:

Viscosity: ±1%,

Density: ±1%,

Temperature: ±1°C

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Power Supply: Compatible with Industrial

Standards

PoRTS: Application



Lubrication oil condition monitoring



Paint mixture homogeneity monitoring



Continuous viscosity and density measurement





Ztar is our waveguide based ultrasonic level sensor that provides accurate measurements even at higher temperatures. It is compatible with corrosive and hazardous fluids due to wide range of waveguide materials.

Specifications



Functions: Measures Fluid Level



Measuring level: Level: 0.03 m to 10 m



Resolution: Level: 1 mm



Accuracy: Level: ±1%



Power Supply: Compatible with Industrial Standards

Ztar : Application



Continuous level measurement in reactor bath and canister



Continuous refrigerant cylinder location and level monitoring





I-PAMS is our Industrial-IoT based asset monitoring system for industries. It provides real- time data visualization and detailed analysis delivering complete process control to the operator.

Specifications



Functions: Real Time Monitoring Assets



Security Protocol: HTTPS(TCL/SSL), IPsec, SSH, WPA/WPA2/WPA3, Bcrypt, Keberos



Data Connectivity Protocol: Zigbee, WiFi(2.49Hz, 5.49Hz), Bluetooth-LE, LORA, RS-232, Tcp/lp, Modbus, RS-485, Cellular

I-PAMS: Application



Real-time Thermal Mapping



Predictive Maintenance



Data Visualisation

Awards & Achievements







Center of Excellence-IoT & AI

A MeitY initiative with Govt. of Karnataka, Haryana, Gujarat & AP

Runner up

on SMCC Challenge - 2021



Qualcomm
Winner
Finalist of Qualcomm Design in India Challenge - 2021



Testimonials



"XYMA's groundbreaking technology promises to revolutionize multipoint and multi-parameter measurements, offering precision, versatility, and sustainability in one remarkable package. Excited for a long-term partnership with this innovative team!"

-CEO at Vesta Si Sweden AB, an SKF Group Company



"The sensor has truly transformed our paint manufacturing process, ensuring real-time monitoring, improved accuracy, enhanced output quality, and helped us derive data-driven decisions. We are positive about the prospect of continuing further integration of the sensors into more OEM units"

-Senior Principal Technical Expert, Schneider Electric

Technology / Accelerator Support



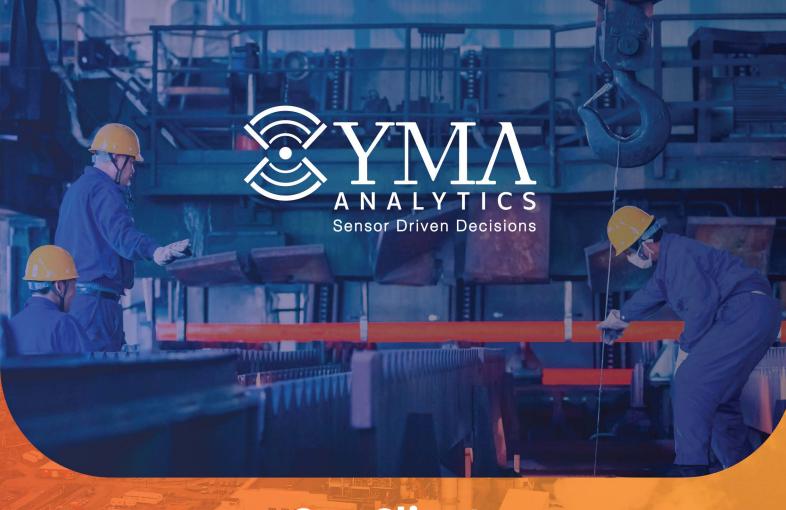








































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