



SUSSTECH

INTEGRATED TECHNOLOGIES


LoRa
Alliance[®]
Member

Smarter Operations in Major Industries



LoRaWAN®

End-To-End LoRaWAN Solution



LoRa Alliance® Member

**SUSTECH is a
LoRa Alliance
Member**



Official Certification of Membership Sustech Integrated Technologies

The LoRa Alliance Inc. hereby certifies Sustech Integrated Technologies is in good standing of Adopter membership for the May 2023 to May 2024 term.

A handwritten signature in black ink that reads "D. McGinnis".

Debbie McGinnis
Account Director
LoRa Alliance, Inc.

Why do you have to Get

Started with LoRaWAN. . .

No need for a frequency license

LoRaWAN operates on a free public spectrum, available for anyone to use, LoRaWAN networks are deployed on free ISM bands (EU868) in UAE & GCC Countries allowing any service provider or enterprise to deploy and operate LoRaWAN networks without a frequency license.

Wide Coverage Range

Using CSS and ADR, LoRaWAN can communicate with a gateway up to 15 km away in unobstructed open areas or up to 5 km away in urban areas. This means that a single gateway can cover all devices in an area of approximately 700 square kilometers.

Low Power Consumption

Compared to 4G, LoRaWAN boasts ultra-low power consumption, whereas 4G lacks low power features. In outdoor settings such as agriculture and forestry, 4G cannot be battery-powered like LoRaWAN.

Low Cost

In LoRaWAN, the devices that are usually in greater quantity are the gateways and terminals. Since the gateway only serves as a data forwarder, its price is relatively cost-effective.

Strong Penetration Capability

LoRa wireless modulation technology can penetrate indoor depths, with the ability to reach underground water and gas meter sensors.

AUTHORIZATION CERTIFICATE

This is to certify that
SUSTECH INTEGRATED TECHNOLOGIES

is an Authorized System Integrator of
Altus Sistemas de Automação S.A.
for the Category - End User Specialist

March 27th, 2023 - São Leopoldo, Brazil

Amadeu Hoffmann
Regional Sales & Marketing Manager

Altus Sistemas de Automação S.A.
altus@altus.com.br | www.altus.com.br



Authorization Certificate

This is to certify that
Sustech Integrated Technologies
has been appointed as an authorized
Distributor
and is approved certified partner under the terms and conditions of the Agreement
with a validity of 2022-06-15 to 2025-06-15
to promote and sell Wellintech Products & Services
in GCC countries and Sudan market.



Libelium Comunicaciones Distribuidas, SL
Avenida María Zambrano, 31
WTCC, torre este, planta 7, oficina Libelium
50018 Zaragoza (SPAIN)

Sustech Integrated Technologies Limite

is authorized as a
System Integrator
with recognized capability to engineer, develop and install solutions
featuring Emerson's Industrial Automation & Control portfolio of product



ISSUE DATE: 12 SEP 2023
AGREEMENT NUMBER: 16306
EXPIRATION DATE: 10 SEP 2024
CUSTOMER SERVICE NUMBER: 69846

Jeff Householder
Jeff Householder
President
Machine Automation Solutions
Emerson

David Kraft
David Kraft
Vice President, Sales
Machine Automation Solutions
Emerson



Letter of Authorization

To Whom It May Concern:

The company **SUSTECH INTEGRATED TECHNOLOGIES**
P.O. Box 7123, Abu Dhabi, UAE
Tel: +971 2 626 8774
E-Mail: info@sustechme.com

In Value added reseller and solution provider for **HAUK & SASKO** the
developer of **MBS** application

For the territory of **United Arab Emirates**

SUSTECH as IOT solution Provider is entitled to configuration, integration,
installation and commissioning complete system directly from **HAUK & SASKO** / Germany and sell those products into the territory of UAE.

Together **HAUK & SASKO** and **SUSTECH** integrated technologies look
forward to helping all of **HAUK & SASKO** product needs, and **HAUK & SASKO**
fully support **SUSTECH** integrated Technologies in products, technical
support, and sale services if any, and deliver warranty materials when
required.

Hopefully, this will satisfy and meet your requirements for a future relationship.

Signature & stamp

David Sasko
David Sasko
Managing Director



Signature & stamp

Imad Hassan
Imad Hassan
Sales & Business Development
Director



Letter of Authorization

To Whom It May Concern:

The company **Sustech Integrated Technologies**
P.O. Box 7123, Abu Dhabi, UAE
Tel: +971 2 626 8774
E-Mail: info@sustechme.com

In Value added reseller and solution provider for **Adeunis** IOT Products & Solutions in GCC, Sudan & Philippines

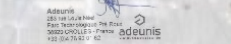
Sustech Integrated Technologies is entitled to configuration, integration,
installation and commissioning complete system directly from **Adeunis** IOT Products & Solutions in GCC, Sudan & Philippines

Together **Sustech Integrated Technologies** and **Adeunis** IOT Products & Solutions look forward to helping all of **Adeunis** IOT Products & Solutions in GCC, Sudan & Philippines

Hopefully, this will satisfy and meet your requirements for a future relationship.

Signature & stamp

Jeffrey
Jeffrey
Sales & Business Development
Director



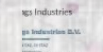
Authorized Value Added Reseller

The Things Industries Certificate that
value-Add is our mission
SUSTECH
INTEGRATED TECHNOLOGIES

authorized reseller and value added service for **The Things Network Software and II** and distribute the complete **Things Industries Software and II**

Valid duration 01-08-2022 - 31-12-2027

Signature
Signature & stamp



Manufacturer Authorization Form

Contract No: 02-202323
4th July, 2023

in Abu Dhabi,

authorized to s
they count with i

To who it may concern,

We, Xiamen Mileight IoT Co., Ltd., are an official manufacturer of Industrial Cellular Routers, LoRaWAN Gateways & Sensors, etc., with registered address at A991, Floor 3, Zone C, Innovation Building, Xiamen Software Park, Xiamen Torch Development Zone for High Technology Industries.

Manufacturer Authorization Form

Integrated Technologies (located at Rabdan Mall, Entrance No. 3, Jumeirah) is a certified partner of Xiamen Mileight IoT Co., Ltd. to
in United Arab Emirates Urban Projects
in July 4 to 2025 July 4
in devices and Gateway technologies

Authorized Technology Provider

Stream Controls
led service for Steam Control
lete Stream Controls product

Stream Controls
gies has met the necessary
ized solution provider for our
ring the period from 2022 to

Signature
Signature & stamp

General Manager
Ayman Mohamed

Stream Controls

Four-Faith

Stream Controls

er with recognized capability to engineer, develop
our-Faith Portfolio of products

Xiamen Four-Faith Communication Technology Co., Ltd.

Stream Controls
Commercial Registration: 156198
Tax Card: 602-156-745
Email: info@streamcontrols.com

Stream Controls

VAR Certificates

Why Solution Provider ?

A Solution Provider

Sensing + Technical Experience = Solution

FIT FOR PURPOSE

We Sell the Solution
Not the Product

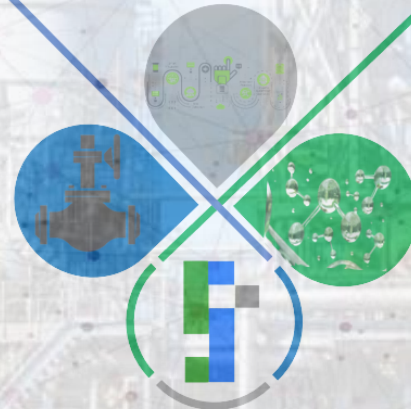
We Sell a Solution
Meet Clients
Satisfaction



SUSTECH

...has...

SOUL



SMARTER OPERATIONS UTILIZING LORAWAN

**Smart data
collection via
Modbus /
HART**

**Smarter
System
Architecture**

SUSTECH

...have the...

SOUL



**Smarter
Asset
Monitoring**

**Smarter
Non-Critical
Control & Alarm**

DID YOU KNOW

**.....that you can send Modbus & HART data via
LoRaWAN?**



Modbus-to-LoRaWAN

LoRaWAN is designed to provide long-range communication with low power consumption, which makes it ideal for applications where data is transmitted infrequently and over long distances such as in MOV

MOV and valve diagnostic with Modbus interface to existing systems have different data control/ collection can send by Modbus all data for predictive.

Sustech can interface and collect the data from the remote area via Modbus to LoRaWAN

Motor Operated Valve Diagnostics



HART-to-LoRaWAN

The controller maintains a precise chemical injection rate under changing process conditions and reports injection data to a central location.

The HART device variables are made available for remote operation and monitoring.

Sustech solution uses a Certified HART to LoRaWAN Class 1 Div 2 hazardous converter: so you can take the signal measurements of equipment in the sensitive zone and transform them into a LoRaWAN® wireless signal



skid diagnostics via Modbus or Hart to LoRa

Plant Accounting Settlement System (PASS)

Smart Gas Reeding & Billing System.

ACCOUNTING AND SETTLEMENT SYSTEMS FOR IPP AND IWP

- ❑ Management system for the most important process in commercial plant operation: invoicing and settlement
- ❑ Integrated database solution for plant and back-office teams
- ❑ Strong reporting capability, high transparency delivered
- ❑ Acquisition of production and consumption meter data from digital control systems (DCS)
- ❑ Database for plant availability and capacity, load scheduling, and outage events
- ❑ Automatic calculation of invoices for electricity and water as per the contract clauses of PPA and WPA
- ❑ Generation of invoices and notices
- ❑ Comprehensive reporting
- ❑ Optional -Invoice verification for inputs: natural gas, fuel oil, coal, additives
- ❑ Optional -Fuel efficiency calculations / Fuel Demand Model

ADMINISTRATION

PROCUREMENT
order, registration of quality and quantity

PLANT

PLANNING
per year, month in terms of use, stock ...

MBS

INPUT
stock logistics, registration of consumption

BILLING
fuels, materials, freight, additional charges

ANALYSIS
quantity, quality, costs

LoRaWAN®



Smarter Assets Monitoring



Equipment Assets Monitoring



Applications we can Provide:

- Heat exchanger
- Steam trap
- Pumps Vibration
- Manual Valve Positioner
- Pressure Release Valves
- Pipes corrosion monitoring
- Valves leak monitoring
- Heat exchanger Condition
- Cooling condition
- Motor-operated valves
- Emergency shutdown system
- Motor current reading
- Filters and strainers

Equipment Assets Monitoring

SMARTER SOLUTIONS

FOR YOUR COMPLEX
ASSET-INTEGRITY
CHALLENGES



**NEON
Vibration
Sensor**



**NEON
Pressure
Gauge**



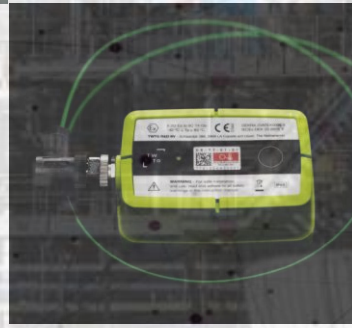
**NEON
Temperature
Sensor**



**NEON
Pressure
Sensor**



**NEON
Valve
Positioner**

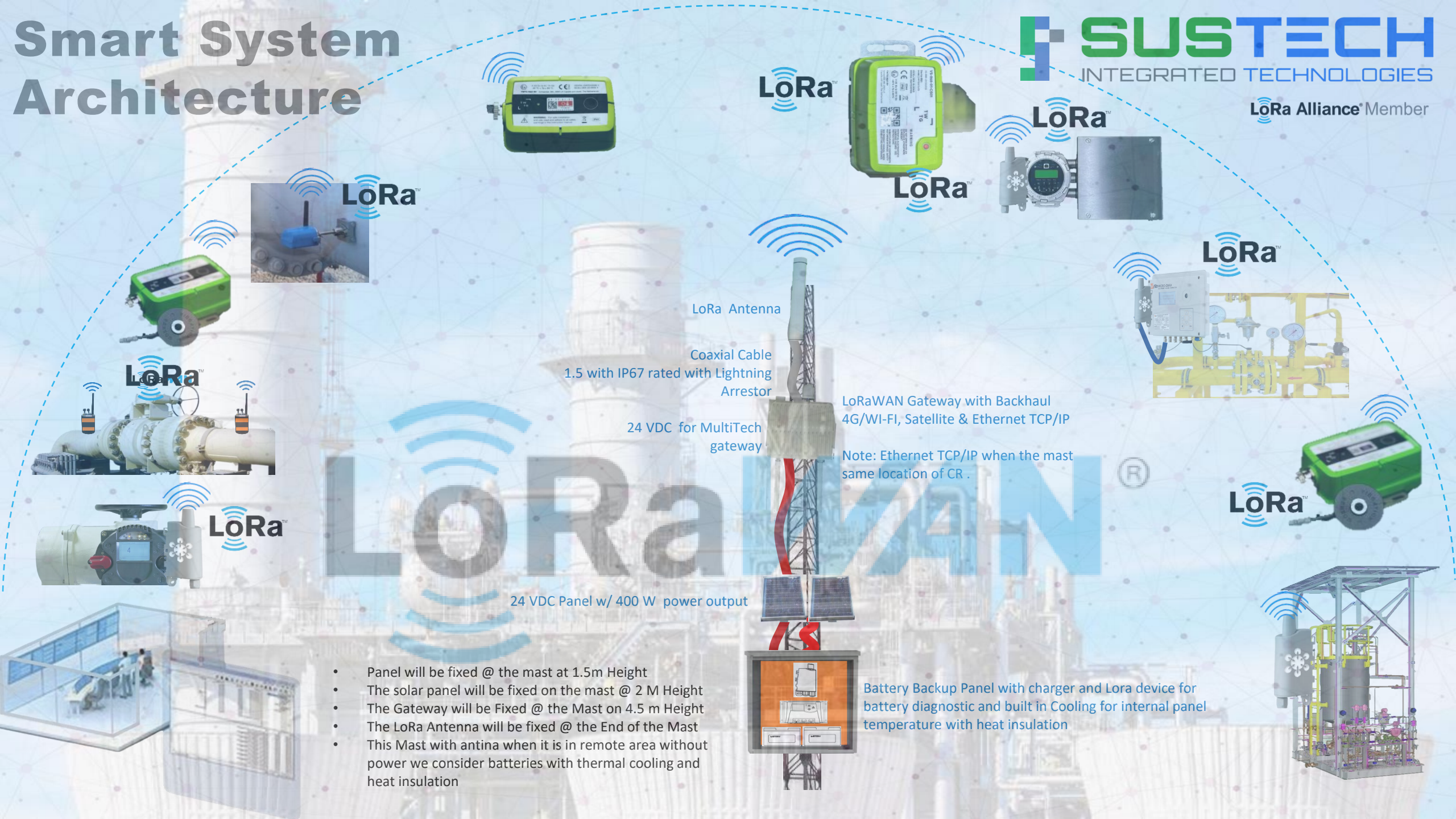


**NEON
Temperature
Transmitter**



**NEON
Contact
Sensor**

Smart System Architecture



LoRaWAN

LoRa Antenna

Coaxial Cable
1.5 with IP67 rated with Lightning
Arrestor

24 VDC for MultiTech
gateway

LoRaWAN Gateway with Backhaul
4G/Wi-Fi, Satellite & Ethernet TCP/IP

Note: Ethernet TCP/IP when the mast
same location of CR .

24 VDC Panel w/ 400 W power output

Battery Backup Panel with charger and Lora device for
battery diagnostic and built in Cooling for internal panel
temperature with heat insulation

- Panel will be fixed @ the mast at 1.5m Height
- The solar panel will be fixed on the mast @ 2 M Height
- The Gateway will be Fixed @ the Mast on 4.5 m Height
- The LoRa Antenna will be fixed @ the End of the Mast
- This Mast with antina when it is in remote area without power we consider batteries with thermal cooling and heat insulation

Smarter Non-Critical Control & Alarm

 LoRaWAN[®]

Non-Critical Control & Alarm

Autonomous operation

LoRaWAN

MQTT

Static IP address

Chemical Injection Skid
HART to LoRaWAN



Corrosion datalogger
Modbus to LoRaWAN



Motor Operated Valve
Modbus to LoRaWAN



Input/output Lora



LoRa

LoRa

LoRa

LoRa

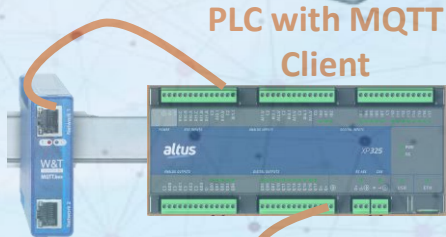
LoRa

LoRa



Gateway with Built-in LNS with MQTT Client

MQTT Broker Server



PLC with MQTT Client





- **Main Office in Masdar – UAE**
- **Abu Dhabi Office - UAE**
- **Backoffice support – Manila**
- **Backoffice support – Jordan**

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United Arab Emirates