IIoT

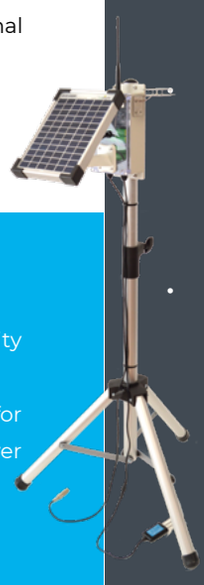
Collect data, perform analysis and optimize the production of your industry and infrastructure in remote areas.

The Industrial Internet of Things is the key element of the fourth industrial revolution (or Industry 4.0), which is based on a network of a multitude of industrial devices connected by communications technologies that result in systems that can monitor, collect, exchange , analyze and deliver information on assets.

IIoT combines machine-to-machine (m2m), advanced data analytics, machine learning, and human interaction using a network of connected devices, delivering valuable information for smarter business decision-making. In this way, IIoT is able to drive unprecedented levels of productivity, efficiency and performance that enable industrial companies to improve financial and operational benefits.

IIoT applications

- **Provide intelligence to facilities:** the IoT allows us to hyperconnect all critical devices, to obtain information that allows command posts to make the best strategic decisions.
- **Improved process efficiency:** with IoT, machinery can be automated more easily, resulting in an optimization of the efficiency of all processes.
- **Fleet management and optimization:** IoT allows you to have information in real time, such as the location of products and variations in their status due to alterations in transport, small shocks or sudden changes in temperature, in remote areas where there is no GSM coverage.
- **Predictive and remote maintenance:** a machine with IoT sensors can be remotely monitored, having information, in real time, about its status. With this information we can monitor assets and be notified when breakdowns occur.
- **Industrial security:** IOT devices allow keeping all assets monitored, through sensors, which makes it possible to detect faults remotely and reduce the occupational risk of operators.



FOSSA Systems Nodes

Our nodes have been developed to provide IoT connectivity with satellites in remote areas.
They act as a stand-alone, stand-alone solution for sending and receiving small data packets over low-power connectivity.

Why our solution?

We have a fully integrated ecosystem, based on **Satellite IoT Connectivity**

Global & Real Time Coverage

Our constellation of 80 satellites, fully deployed by 2024, offers real time connectivity anywhere on the planet.

Cost-effective

Standardized and miniaturized in house built pico satellites based on COTS, reducing network deployment costs.

Low power

LPWAN technologies to assure critical data transmission to end user and highly energy efficient errestrial devices.

Ease of use & Integration

Backwards compatibility with current terrestrial deployments of IoT devices.

How our technology works

We distribute the nodes throughout the study assets in such a way that they collect, efficiently, the really valid information of the parameters analyzed by means of predictive algorithms.

These **nodes**, by sending small data packets at low power, **have an autonomy of up to 3 years**, which makes them an optimal solution that does not require maintenance. an automated way.

The data, encrypted, is sent to picosatellites, which offer global coverage by orbiting around the Earth.

Subsequently, this secure and informative data is sent by the satellite to a ground station, where it is collected and sent to a server.

It is a connectivity with end-to-end security. The client is the only one capable of decrypting the data and knowing its content, once it is received by the server.
FOSSA Systems also offers the possibility of processing customer data and, through an online dashboard or through API integration, displaying all the information that the business owner needs about the status of their assets.