



AEInnova
Alternative
Energy Innovations

Batteryless and free of maintenance wireless long-range iIOT device for vibration monitoring.

FÒRUM
INDÚSTRIA
4.0



Opportunity



Air pollution and Carbon emissions:
800.000 dead in 2018 only in EU
30m² arctic ice melted / citizen / yearly



Challenge



Energy Intensive Industries & Waste
heat Up to 65% energy lost
21% yearly energy needs lost in WH
High sensing costs (Wired & Wireless)



Solution



Use heat as energy source thanks to AEI patent

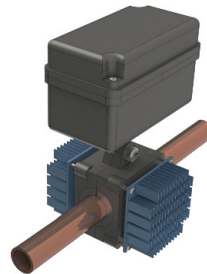
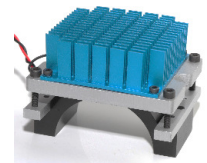
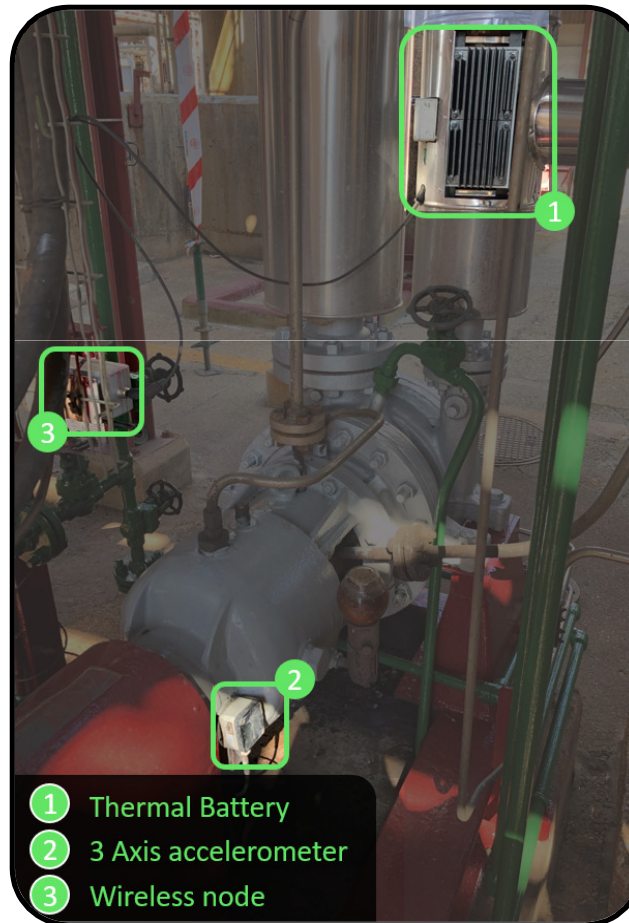


Solution

INDUEYE

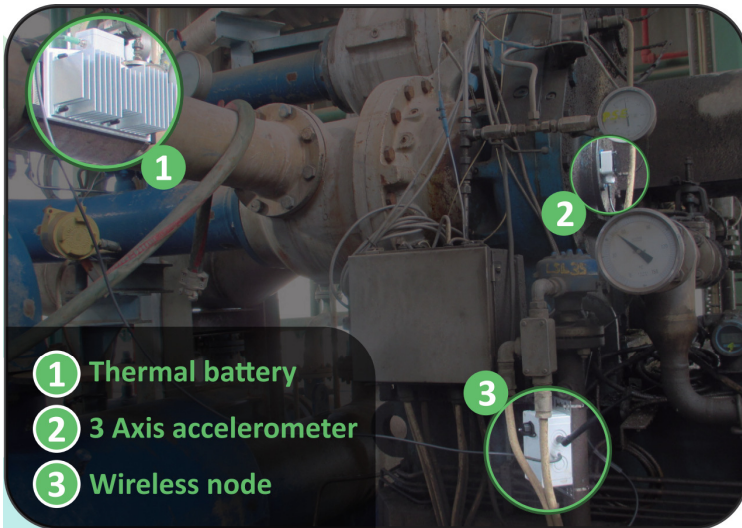


Batteryless, free of maintenance Wireless IOT

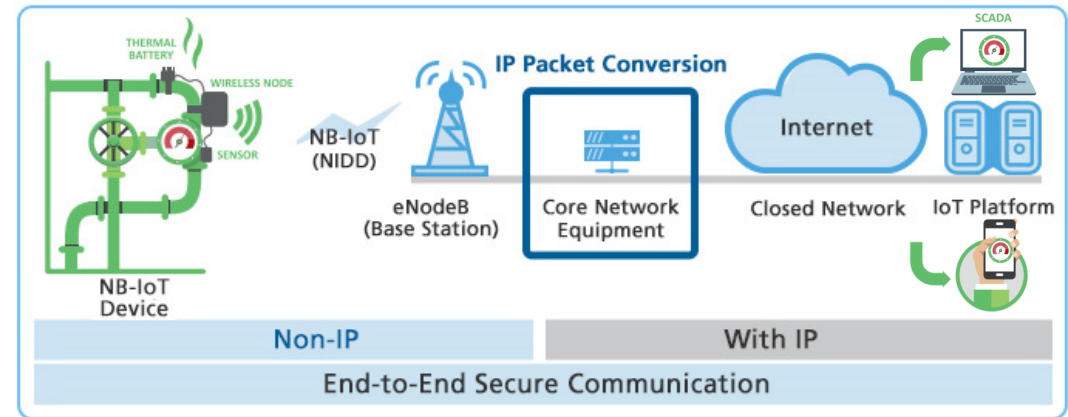


Summary

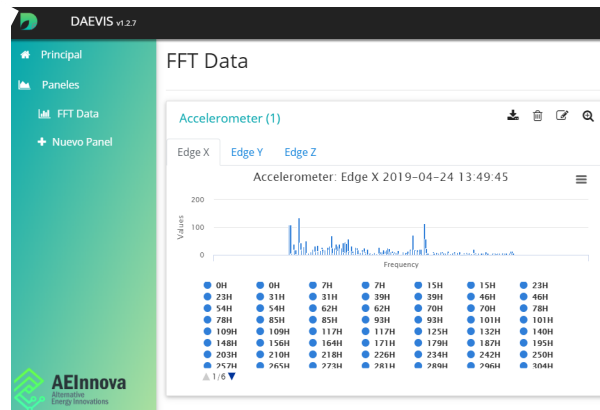
Installation example for vibration



Network Scenario



Dynamic AEInnova IoT Platform (DAEVIS)



FEATURES

- No wires, no battery, no maintenance, plug & play
- No infrastructure (no gateways): Sensor → Cloud
- Very long range coverage.
- Monitor: vibration, thermal, steam leaks, light, gas...
- Heat source: from 50°C (120°F) to 180°C (350°F)
- Data stream: As demand up to 1 measure / minute.
- Edge computing: FFT, FIR & IIR Filters, etc.
- Full IoT platform DAEVIS (reports, data analytics...)
- IP66, ATEX and CE compliant
- Industry 4.0 ready with no environmental impact
- Scada and SAP integration (optional)
- GPS integration (optional)

Certifications



Sub-contractor	Description
<p style="text-align: center;">APPLUS</p>	<ul style="list-style-type: none"> • CE MARK EU TYPE EXAMINATION CERTIFICATE . EVALUATION IN CONFORMITY WITH THE DIRECTIVE FOR RADIOELECTRIC EQUIPMENT 2014/53/UE based on: Module B “Examination UE”, (Anex III of the Directive 2014/53/UE). • Assays in accomplishment of the directive: Electromagnetic Compat. assays (EMC). EMC Assays norm EN 301 489-1, EN 301 489-3. • Electric security assays in norm: EN 60950-1:2006 + AC:2011 + A11:2009 + A1:2010 + A12:2011 + A2:2013. • ENVIRONMENTAL TESTS AND ASSAYS. Regarding to IP67, temperature, humidity, saline fog corrosion, vibration tests, environmental rapid changes test regarding to thermal stress and crash.
<p style="text-align: center;">Laboratorios Madariaga</p>	<ul style="list-style-type: none"> • Potential explosive atmospheres assays. • EU TYPE EXAMINATION CERTIFICATE IN ATEX DIRECTIVE. Conformity evaluation with the directive for use apparels and protection systems for the protection in potential explosive atmospheres 2014/34/UE based on Module B “Exam type UE” (Annex III of directive 2014/34/UE) + module C1: Products (Annex III of directive 2014/34/UE)

The company

17 High qualified team

- 3 Ph.D in microelectrònics.
- 2 Electronics engineers.
- 1 Industrial engineer.
- 1 Telecommunications engineers.
- 2 Mechanical engineers.
- 2 Computer science engineers.
- 1 Chemical engineer.
- 1 Environmental engineer.
- 1 IT system graduate.
- 3 Finance, business & admin.



5 EU Public Grants

- **H2020-FETPROACT-2018-2021 RIA. Project HARVESTORE. Light house project in IOT & Harvesting.**
- **LIFE Programme. Project HEAT-R. Waste heat recovery.**
- **SME Instrument. Project HEAT-R.**
- **Fiware (Big Data). Project INDUEYE.**
- **CDTI NEOTEC. Project HEAT-R & INDUEYE.**

24 international Awards

- **United Nations Go!ODS** Global compact ODS7.
- **United Nations Ideas4Change.**
- **DENA - Energy Transition AWARDS.**
- **EBAN – The one to watch.**
- **Volkswagen Think Blue.**
- **IOT World Congress** Best worldwide innovate.
- **REPSOL** Entrepreneur fund.
- **EIT Innoenergy Highway...**

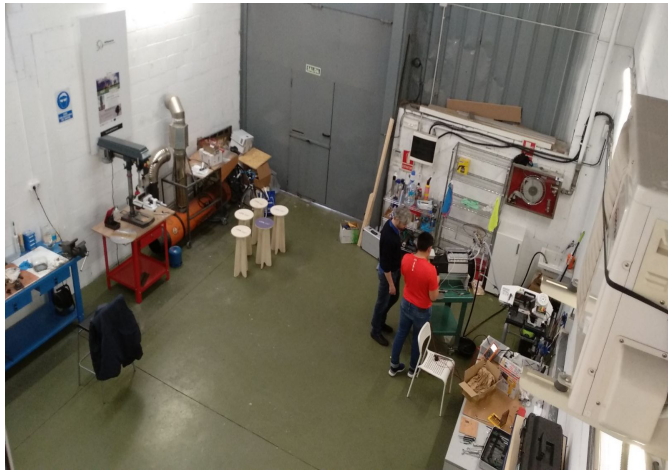
LOCATION



Headquarters – Terrassa Center



Workshop – Terrassa Industrial



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