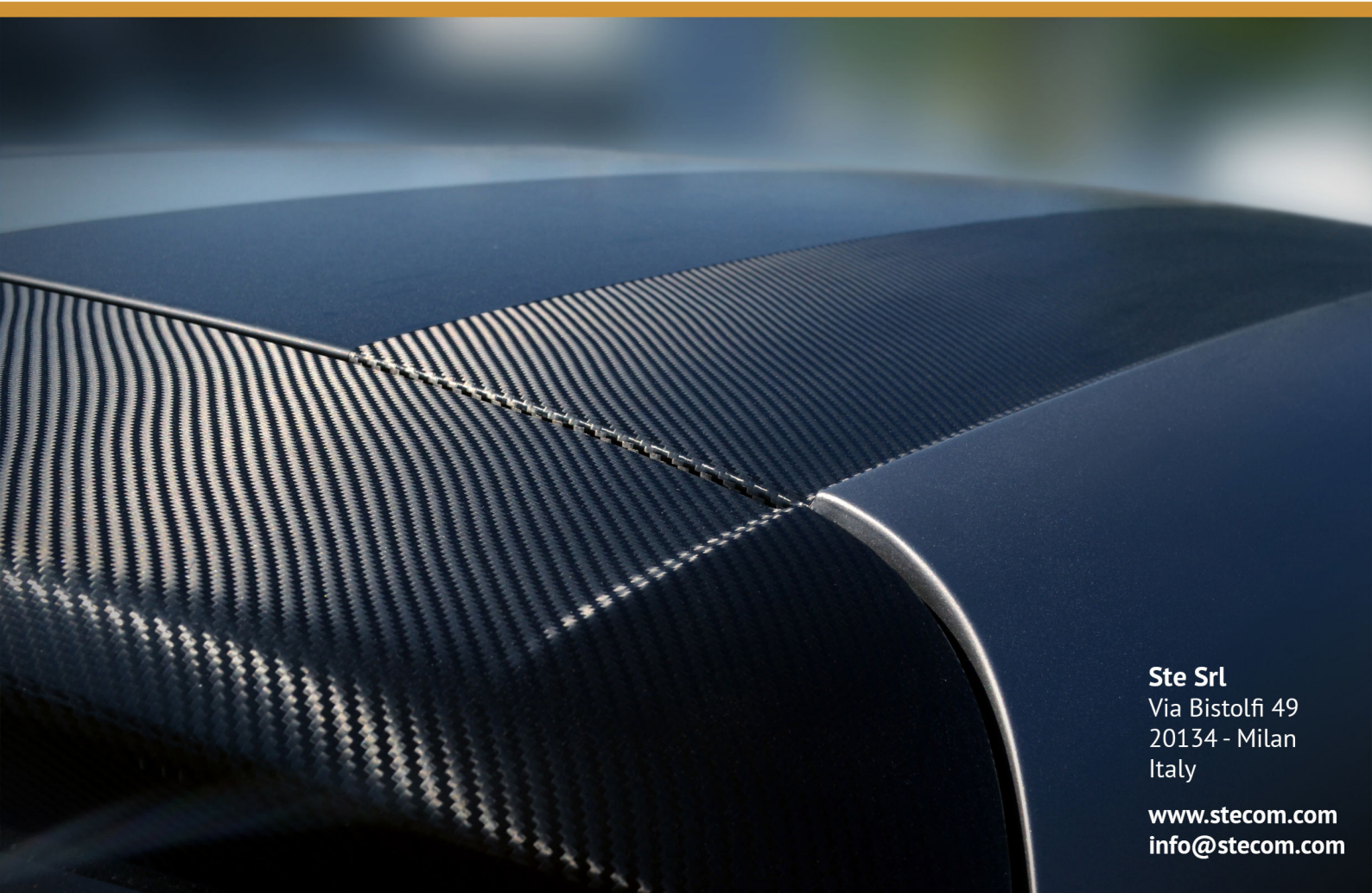




casehistory



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Smart Home

Sp.Net Wireless Network to enhance a indoor connectivity

“CONNECTING INNOVATION FOR INTELLIGENT WIRELESS”

Ste

Engineering Department

2014



system features

The Sp.Net: network evolution

Sp.net is the new multi-technology sensors network produced by STE.

Thanks to sp.net you will be able to create your own wireless infrastructure with just few easy steps while saving your money.

Sp.net can include different solutions such as low-consumption MicroSp systems, ZigBee sensors, Bluetooth and WiFi which can be managed just by one fully integrated Gateway perfectly equipped to handle everything at its best. With sp.net you will be able to control any kind of sensor within any environment.

A wide range of applications which go from small home sensors to bigger urban systems as well as more sophisticated use such as checking wheel pressure through a sensor placed into the tyre which sends data directly to your smartphone. Any object, no matter whether big or small, can be part of your sp.net network.



Cuby: a new gateway concept



Cuby is a new STE proprietary multi-technology concept.

With just few easy steps CUBY is able to create an effective sensors network at high energetic efficiency. A wide range of different sensors can be mounted within the same system: low consumption MicroSp, 169Mhz Systems, Wireless M-Bus, Zig-Bee sensors as well as Bluetooth.

Thanks to wi-fi connection Cuby becomes a hub of the internet network.

Cuby it's a new way of thinking wireless. Thanks to Cuby we can today focus on the application itself better than thinking how to technically achieve it.

Cuby is able to autonomously all the data exchange process among devices.

Thinking about new solutions and applications both B2C and B2B will be just a piece of cake. The system is supplied along with a web-server software which enables final user to manage all linked devices. You can also constantly check-up sensors status as well as manage alarms and events.

Cuby is an outstanding starting point to kick off your idea!



Micro.Sp Alliance

Micro.Sp: the enabling technology for a Greener and more Sustainable world.

The Micro.Sp Alliance develops and promotes a breakthrough in Energy Efficient Wireless Sensors (EEWS): based on the extremely advanced Micro.Sp technology, the new standard aims to contribute to enable the market of "Internet of Things" (IoT) and smartphone based applications as well as to monitor and control objects in the network.

Micro.Sp alliance delivers a new method of creating wireless sensors by using standard components normally available on the market, thus supporting the widespread of cost effective solutions for a large spectrum of applications.

The alliance's vision is to offer the highest grade of integration along with the most advanced solution for a cost effective approach to the business, contributing to reduce installation, operational costs and to reduce the environmental impact.

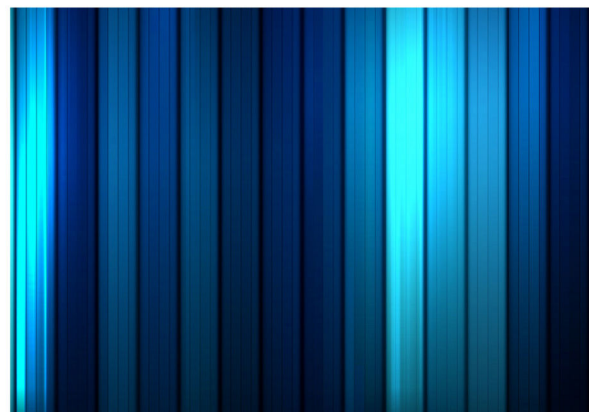
We believe in a greener and smarter world and our mission is to offer a new technology for everyone and everything.

The micro.sp technology

Link margin budget, extreme low power consumption and high peak power are among the requirements of a robust communication: Micro.Sp technology becomes a must when the wireless sensors are powered by small lithium batteries and the management of the energy delivered to the system is critical.

The Micro.Sp approach offers the highest grade of integration and the most advanced solution for a cost effective approach to the business, contributing to reduce installation and operational costs.

Soon after having introduced Micro.Sp concept, STE has increased its penetration of market sectors such as automotive and home appliances. High level of integration, extreme energy efficiency and solid know-how in software engineering are the key factors which consolidated STE position on the market.

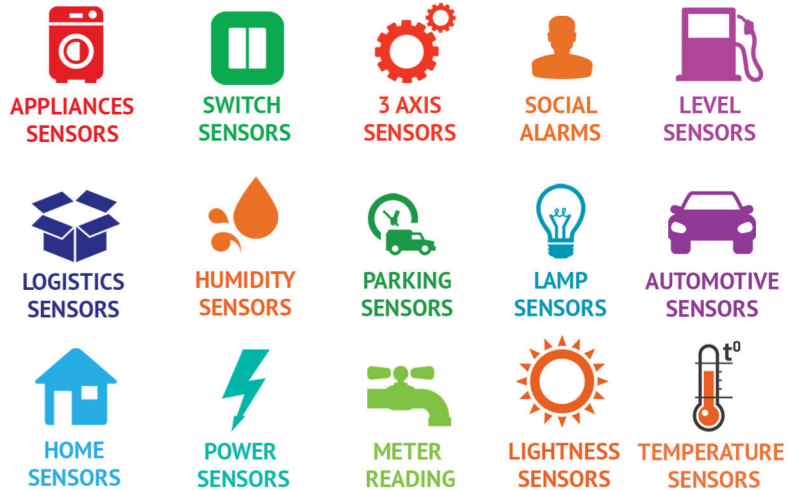


Sp.Net Concept

what is sp.net?

CLOUD SENSORS

There are many parameters that can be measured and wirelessly delivered to the receiver. The Sensors become integral part a wide range of object and appliances. They are extremely compact and powered by small batteries or energy harvester.



WSN

WIRELESS SENSORS NETWORK is a particular kind of network, characterized by a distributed architecture. It consists of a autonomous electronic devices that collects data from the environment and to communicate to another device. This device is the "Gateway".

GATEWAY CUBY



Cuby collects data from multi-technology sensors and manages them individually at the same time. It can be used both indoors and outdoors. It is a scalable solution and usable in different contexts. It can be powered by a solar panel, both by a battery or directly connected to the power line.



INTERNET

Cuby uses a Wifi technology and/or GSM to post to Internet the data collection and make them easily to access.

WEB APPLICATION

Thanks to the Web server interface it's easy to access to the data. Thus you can manage the sensors of your wireless sensors network from any devices commonly used such as smartphone or tablet.



your home network



Home wireless network could sometime be fairly complicated to realize. There could be many hurdles impacting on the system efficiency. In this regard **sp.net** is the right answer to bypass all these limits (walls, pieces of furniture, home appliances) and it can make difference between a winning solution and a weaker one.

One key feature of wireless systems is the power supply which comes usually through a battery. When it comes to long range transmission together with long lasting power then **sp.net** becomes the right choice for it perfectly meets these essential needs.

Wireless net includes tiny low-consumption sensors powered by very small lithium batteries which are able to grant a massively long lasting power (up to 10 years).

On top of this, Micro.Sp sensors can achieve very good transmission performances. Despite their perfectly integrated, hence small, antennas they can cover upto 100 meters in an outdoor environment.
















Thanks to **sp.net** you can easily and quickly set up a home sensors network to control and manage different variables such as temperature, pressure, vibration, air-quality, movement, lightings and many others.

The multi-technology sensors are wirelessly linked to a gateway: the "Cuby". "Cuby" is able to manage all sensors together and this can be done through a remote connection.

"Cuby", thanks to the wifi-board, becomes part of its own network through which it can easily access the world wide web.

The application developed by STE can manage a constantly check all sensors placed within the home environment easily setting-up its own smart-network.



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APPLIANCES SENSORS | 
SWITCH SENSORS | 
3 AXIS SENSORS | 
SOCIAL ALARMS | 
LEVEL SENSORS |
| 
LOGISTICS SENSORS | 
HUMIDITY SENSORS | 
PARKING SENSORS | 
LAMP SENSORS | 
AUTOMOTIVE SENSORS |
| 
HOME SENSORS | 
POWER SENSORS | 
METER READING | 
LIGHTNESS SENSORS | 
TEMPERATURE SENSORS |

your wireless sensors network



Smart City

WSN concept is tightly bound to the SMART CITY one. There are several potential applications suiting Urban environment needs : air quality control, Temperature control and lightning and proximity sensors. All this can be easily managed by few gateway located across the urban territory.



Building automation

MicroSp low consumption technology along with CUBY flexible scalability enable the final user to easily and quickly realize a huge amount of domotics applications.