

SenRa and PNI bring Smart Parking Solutions to India.

NEW DELHI, India - August 1, 2018: SenRa, a PAN India Low-Power Wide-Area Networks (LPWANs) provider for long range-based (LoRa®-based) Internet of Things (IoT) applications today announced its partnership with PNI Sensor, world's foremost expert in precision location, motion tracking, and fusion of sensor systems into real-world applications, to bring Smart Parking solutions to India. This coalition between the two companies combines LoRaWAN™ technology, connectivity and an end-to-end Smart Parking solution.

The partnership prospects to cater smart parking solutions with PNI's [PlacePod®](#), an IoT-enabled smart parking sensor, ensuring faster enactment in the Indian market. PNI's PlacePod® has got a meticulous magnetic sensing system for vehicle detection with high performance magnetic sensor which accurately detect the presence or absence of a car in a parking space.

Parking is one of the essential components of development plans of various cities in India. The number of vehicles in India is projected to grow at an annual rate of 9-11 percent over the next five years. As per Indian Road Congress (IRC) Standards, a vehicle takes 25 square meters of space on average. Unfortunately, due to lack of resources and technological intervention to monitor parking, enforcement has become weak in most of the cities in India leading to traffic congestion and parking management challenges. SenRa's commercial grade LoRaWAN™ network combined with PlacePod smart parking sensors are taking a step forward by solving the most critical aspects of parking management and unauthorised parking including accurate, real-time vehicle detection and location of available parking spaces with data validation and real time tracking. SenRa has already successfully finished tests with the PlacePod smart parking sensor. It can be easily mounted in the ground and stays unaffected by the change in weather.

The LoRaWAN™ enabled PlacePod is a high-accuracy parking sensor with a long battery life allowing smart cities, residential areas, universities, parking authorities and city planners to harness the benefits of SenRa's long range, low power commercial grade network to make data-driven decisions.

“We were looking for a partner who can bring high quality LoRaWAN™ parking sensors that can handle extreme weather conditions. We found that with PNI.” said SenRa's Chief Executive Officer, Ali Hosseini. “PNI is one of the first companies in the LoRaWAN ecosystem to deploy smart parking solutions across the globe. We are very excited to have the opportunity to bring their technology to India.”

About SenRa

SenRa, a contributing member of the LoRa Alliance™, is a PAN India Low Power Wide Area Network Provider (LPWAN), specifically LoRaWAN™, for the Internet of Things (IoT) and Machine to Machine (M2M) solutions and applications. SenRa is currently deploying LPWANs throughout India for projects which require secure, reliable, long distance communication at low cost. SenRa is working with global partners to deploy smart solutions such as water metering, smart agriculture, smart lighting, smart cities, logistics, electric and gas meter. For additional information visit: <https://senraco.com/>

About PNI Sensor

With over 30 years of experience, PNI is the world's foremost expert in precision location, motion tracking, and fusion of sensor systems into real-world applications. PNI's sensors and algorithms serve as the cornerstone of successful IoT projects and other mission-critical applications where pinpoint location, accuracy, and low power consumption are essential. Building on decades of

patented sensor and algorithm development, PNI offers the industry's highest-performance geomagnetic sensor in its class, location and motion coprocessors, high-performance modules, sensor fusion algorithms, and complete sensor systems. PNI's technology is used in consumer electronics and wearables, smart parking, IoT, robotics, automotive, military, and other applications. For more information visit: <https://www.pnicorp.com/>

About LoRaWAN™

LPWAN (Low Power Wide Area Network) is a broad term covering several implementations and protocols, both opensource and proprietary. While other wireless communication technologies available like Bluetooth and BLE (and to some extent Wi-Fi and ZigBee) are not suited for long-range performance, LPWAN provides the longest range with a low data rates. The technology used in a LoRaWAN™ network is designed to connect low-cost, battery-operated sensors over long distances in harsh environments that were previously too challenging or cost-prohibitive to connect. With its unique penetration capability, a LoRaWAN™ gateway deployed on a building or tower can connect to sensors more than 10 miles away or to water meters deployed underground or in basements.

About LoRa Alliance™

The LoRa Alliance is an open, non-profit association that has grown to more than 500 members since its inception in March 2015, becoming one of the largest and fastest-growing alliances in the technology sector. Its members closely collaborate and share experiences to promote the LoRaWAN protocol as the leading open global standard for secure, carrier-grade IoT LPWAN connectivity. With the technical flexibility to address a broad range of IoT applications, both static and mobile, and a certification program to guarantee interoperability, the LoRaWAN protocol has already been deployed by major mobile network operators globally, with continuing wide expansion ongoing. For information about joining the LoRa Alliance, please [visit http://www.lora-alliance.org/join](http://www.lora-alliance.org/join).

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