

How iRam Technologies is contributing towards Smart City Mission through IoT enabled solutions

• 4 mins ago

Technologies like IoT, Artificial Intelligence and Blockchain are playing a significant role in the government's Smart City initiatives and iRam Technologies' products and solutions are aligned with this initiative, says Udaya Bhaskar Rao Abburu, CEO & Managing Director, iRAM Technologies.



In this interview with Sreetama Datta Roy of Elets News Network, Abburu shares how iRam Technologies is deploying technology which is contributing towards the success of Smart City Mission of the Government of India and the list of innovative products which is providing the much needed convenience to citizens in urban localities.

What is the vision of iRam Technologies?

iRam is a product development and technology company with most advanced solutions based on Internet of Things (IoT). The products and solutions from iRam are specially designed to make urban living more convenient, aligned with the government's Smart City initiative. iRam's solutions are home grown, developed in their manufacturing facility in Bangalore.

How are you leveraging technologies like IoT in your organisation?



Termed as the 'Next Big thing', IoT has the power to change our world. It will play an important role in the future and the amount of cash flow in the market is expected to be significant in the upcoming years. According to

report by Gartner, over half of major new business processes and systems will incorporate IoT elements by 2020. There is a huge potential in the market regarding IoT based products, that is why we have come-up with an idea of starting a company that can provide smart solutions for smart citizens now and in future.

We believe IoT adoption will significantly increase across domains. Currently **IRAM's** generally available IoT solutions are aimed at smart cities while our engineering team has a well-defined roadmap to introduce various solutions based on IoT architecture in near future viz. Industrial automation, enhancements in IoT platform with embedded blockchain and AI features & functionalities.

Indian IoT market has huge potential and is expected to grow across industries like automotive, transportation, manufacturing, logistics, etc. IoT is set to become a major differentiator in driving NextGen products and services.

How are the products and services of your organisation contributing towards the government's smart city initiative?



iRam's solutions are integrated with leading smart city command control platforms. We have successfully deployed our solution in various smart city projects and municipal corporations across India. iRam is known for indigenous technology and entire solution from Field devices/sensors/controllers, gateways, central management software, user mobile app and POS app etc. is designed and developed by iRam.

While in India most of the towns and cities have grown haphazardly, we still have opportunities to implement new technologies to make appropriate amenities available to city dwellers making urban living convenient, cost effective and environment friendly. iRAM products are IoT based and is already being used to develop smart parking solutions, smart street lighting systems and smart environment sensors. These areas are likely to witness rapid growth in the future.

The pace of implementation of projects under the **smart city mission** has picked up significantly during the last few years. According to the Centre for

monitoring Indian Economy (CMIE), if this elevated level of implementation continues then we could see a faster completion of projects in the near future.

You have recently launched Smart Parking solutions. What are the technologies used to develop this application?



Smart Parking Solution uses IoT to equip existing parking spaces with sensors that can help notify users on the availability of a parking spot. All the parking lots of the city can be further connected with the city navigation system which can help drivers find the nearest parking location making parking convenient and hassle free. Smart parking works for On-Street, Off Street and covered parking spaces. It provides prepaid or post-paid payment options and allows variable and demand-based parking fees. It also supports multiple payment methods – cash or cashless, parking permits (reserved parking slots), payment through credit card, debit card, e-wallets, pre-paid city cards.

The sensors can be embedded in the ground or cameras can be installed to give real time parking occupancy data. For covered parking spaces red or green spotlight indicators can guide users to available parking spots. This helps drivers looking for parking find an open spot more conveniently and quickly.

Once the technology has determined the available spaces, the data is transferred to a cloud/premise based smart parking platform. This data with other parking availability data creates a real time map. This smart parking system not only optimises usage of the available parking space but also enhances the overall functioning of streets in the city. The system employs IT as the backbone to facilitate greater transparency and efficiency in the collection of parking fees and making parking operations in the cities more organised and increasing the revenue potential for the municipalities.

Since the Smart Parking is totally transparent, between Municipalities, Parking contractors and citizens, there is a possibility for many organisations

coming forward to work on PPP models. This might be resisted by existing conventional parking operators. Some Indian smart cities like Kanpur, Nashik, New Delhi, Rajkot and Bhubaneshwar have already started implementing the **Smart Parking System**. Smart Parking is the future and many more cities are likely to adopt smart parking solutions in the years to come.

Who are your target customers for this?



At this point of time our End customers are Smart City corporations and municipal corporations. We make our products available to these end customers through a network of ecosystem partners. These ecosystem partners have well defined smart city vertical Global practise and most of them are large MNC's with presence across Globe.

How can one use this application?

As of now this application is city-specific which means that citizens can find all parking locations in the city by downloading the city-specific parking guidance application from Play Store or Apple Store. Citizens can select a location for route guidance, parking availability as well as parking rates. If parking policy allows reservation for that location citizen can also reserve the parking through this app and pay for the same online.

Apart from the Smart Parking solution, what are the other products or service offered by iRam Technologies?

Besides Smart Parking Solutions we also offer:

Smart Poles – Designed from ground up in India for Indian roads and climate conditions, iRam Smart Poles are highly secure that prevents and alerts thefts. The Pole has flexible networking and powering options for equipment and an automatic temperature management within the enclosure. The enclosure can be placed either on the ground or under the ground. Smart Poles offer multiple cut-outs for third party equipment's to be hosted ranging from Hidden telecom antenna's, cameras, variable messaging boards, smart street lighting, environment sensor systems, electronic call box, PA systems, Wi-fi access points etc.

Smart Lighting – iRam's Smart Street Lights are remote controlled and based on secure wireless connectivity. The system can be retrofitted and requires no rewiring. Smart Lighting offers pervasive User Control from anywhere using any-device with a standard web-browser and mobile App. The system supports Motion Detection and Ambient Light Detection and can be located on various map sources including Google maps with hierarchical browsing.

Smart Environment Solutions – Environment Pollution is taking a toll on city dwellers in India. Smart environmental sensors can be placed around the city to continuously monitor critical environmental parameters like temperature, CO, CO₂, O₃, NO₂, SO₂, PM, toxic gases, electromagnetic field, UV Energy, noise, Rainfall, Wind Speed, combustion gases to detect fire and so on. Analysis of this data can give insight to critical environmental conditions for a city administration to react immediately. The Central Environmental Monitoring Server collects sensor data from multiple locations and displays it on multiple remote multi-line LCD display unit. This helps the citizens to know the pollution levels in their area.

Customised Solutions –iRam solutions are designed on open platform IoT architecture that offer the advantage of designing customised solutions addressing the varied requirements of the customers. As open architecture has the inherent capability to extract data and control and monitor the same from different kinds of field devices it can have varied applications. iRam is already working on customised requirements for industrial automation, telecom tower management, precision farming etc.

What are your plans and initiatives for the future?

As of now we are working together with our partners and the government agencies for successful deployment of the current projects in hand.

We are focussed on Innovation led growth. We are continuously developing new products and improving existing IoT products and solutions that can positively impact urban living. IRAM has well defined roadmap and apart from innovation in IoT is going to focus on newer and fast evolving technologies like Artificial Intelligence, Blockchain. Side by side we are already working with another half a dozen upcoming smart cities and municipal corporations in India on various use cases and business models which can be driven through our existing product line of smart parking, intelligent poles, smart street lighting and smart environment.

Another focus area is customised IoT device development for specific use cases. we are engaged with Various government bodies and enterprises to address specific use cases through our customised IoT devices. Telecom tower management, Precision Farming are couple of areas of current on-going engagement.

What are your expectations of growth in the coming years?

Smart city initiative of the Indian government has given a big boost to iRAM's growth. The acceptance, as well as the adoption of IoT in various other verticals, is further fuelling this growth. Timely Series A Strategic Investment last year allowed us to manage this traction. However, to keep up with this growth momentum global expansion, aggressive hiring in R&D/Engineering/Sales/Solution Architect domain, strengthening of the partner ecosystem, new product development, feature enrichment in existing products are key tasks at hand. We are confident to say that Industry will witness iRAM Version 2 in FY 2019 and that will be characterised by various forthcoming orders and imminent Series B investments.

 Tags

iRam Technologies

smart city

Smart City Mission

Udaya Bhaskar Rao Abburu