

MTN IoT Awards 2019

Best Enterprise Development Solution

The MeMeZa Home Policing Alarm

Company: Memeza

The MeMeZa Home Policing Alarm is the first public, all-in-one emergency system endorsed by SAPS and Government; improving response times and creating a direct communication channel between the police and communities with no access to the Private Security Industry. The solution is built on MTN's GSM network and uses SIM card/chip technology. Cellphone controlled with a three-day battery life, it provides affordable, innovative Connected Community Safety Technology, with a special focus on low-income households. It also includes practical features such as Advanced False Alarm Protection through motion sensors, Advanced Alarm Decision Making in cases where a user cannot get to the panic button as well as tampering detection. The solution also comes standard with an outdoor siren, with GPS, for improved visibility.

Smart City and Water Automation

Company: Temelectronics

The Smart City and Water Automation solution automates processes to help reduce wastage. Currently fully functional and deployed at Carletonville Hospital in Johannesburg, the solution has helped alleviate the hospital's ongoing water supply problem. Now, sensors placed inside the hospital's water tanks and municipal water mains alerts users when the tanks are running low, which pumps are operational, water levels and when there is a municipal water outage. All pumps which supply water to the entire hospital are also remotely automated. The solution is scalable, and can be utilised across a range of industries from home automation to farming, where devices, appliances and equipment can be remotely enabled and disabled regardless of where the user might be. The solution has a number of extra features such as in-range remote light control, power updates, power dissipation notification, room or ambient temperature regulation, and more.

Smart Real Time Hydroponics and Aquaponics Farming System

Company: MEMT

This hydroponics and aquaponics farming solution is made up of a real-time monitoring system that aims to improve food security in rural areas affected by water shortages and climate change. Currently in prototype stage, data from rural farms is sent directly to the farmers, giving instant insight into what plants are thriving, what nutrients are missing, water levels and other essential information required for optimum growth. The solution includes a handy application where farmers and members of the community can see what crops are being grown in the area, and what is available for the community to buy and sell.

Best Commercial IoT Solution

Domestic Refuse Collection Management

Company: Ramm Systems

This locally developed solution combines vehicle telematics with the electronic identification of assets, allowing municipalities to effectively track, monitor and locate their refuse bins. Over 800 000 domestic refuse bins have been fitted with chips, whilst 150 waste collection trucks have been equipped with tag readers, lift sensors, GPS tracking and management devices. The combination of these technologies allows municipalities to manage their wheelie bin assets; plan, schedule and monitor waste collection routes; measure the efficiency of their waste collection teams, the trucks and their drivers; and identify legal and illegally placed waste bins.

Discovery Vitality Drive Sensor

Company: Discovery

With a solid three years of successful implementation behind it, the Discovery Vitality Drive Sensor uses vehicle telematics to accurately track driving behaviour. Consisting of a battery operated sensor which attaches to the windscreen of a vehicle, the device interacts with Discovery's smartphone driving application to measure and reward users' driving behaviour. Since launching, the programme has collected more than 11 billion kilometres of driving data. Significantly, it has shown that drivers typically improve their driving score by more than 15% within the first 30 days of use.

The Smart Chicken Weighing Scale

Company: BlackBee Software

This innovative chicken weight and data monitoring solution is used to weigh and monitor the growth and development of broiler farm chickens throughout their lifecycle. Taking out the human factor completely, it is made up of an easily moveable unit and a Bin Monitoring solution that can monitor the weight of feed in any silo and when it needs to be replaced. For added convenience, collated data is analysed and presented to the end-user in a web-based interface that can run on a mobile device, iPad or browser.

Best Industry 4.0 Solution

earlyROM Mining Production System using Industrial IoT

Company: Exxaro

Exxaro's Belfast Coal Mine is breaking barriers in the mining industry, with the implementation of its complete IoT-based production system in its mining fleet. Aimed at managing performance, the earlyROM Mining Production System enables Exxaro to see the machine performance, tempos, cycle times and machine data of its mining fleet in real-time. The earlyROM Mining Production System is a commercially and technically disruptive Edge Computing system. With typical mining solutions of this nature costing more than 7x the value, earlyROM has specified insights into real data, all on an open architecture platform, ultimately putting the user in control of technology, data, costs and bandwidth usage.

Macrocomm Fleet Analytics

Company: Macrocomm

Macrocomm Fleet Analytics is a fully secured cloud-based solution that every fleet management company should be using. In short, it facilitates the accurate calculation of the running costs of each individual vehicle within a fleet of any size, and resultantly the overall running cost of the fleet. Added to this, users receive ongoing and actionable fleet optimisation insights, such as the cost to company of less than optimal driver behaviour, including speeding, harsh braking and cornering, excess idle and after hours or unauthorised trips.

Informed Decisions

Company: Informed Decisions

A proudly South African OEM, Informed Decisions provides a multitude of full IoT tracking, monitoring and analysing solutions, all produced and designed in-house. Its innovative hardware technology enables IoT in various industries such as pharmaceuticals, the cold chain and water management, while making it affordable to the mass market. Informed Decisions enables its clients to do exactly that – make an informed decision. This is achieved through the integration of various sensors, gateways and device management capabilities to give end-to-end visibility of important data. Completely independent of any public network provider, the hardware runs on Informed Decision's own private LoRa network, and can be deployed in both urban and rural areas.

Innovative Hardware in IoT

NodeX IoT System

Company: Recon Electronics

The NodeX IoT system will make the 4th Industrial Revolution a reality! In a nutshell, this innovative solution allows users to regulate any electronic or mechanical system parameter wirelessly, such as monitoring a reservoir level, movement of a vehicle or turning a pump on and off. Operators no longer have to be dependent on third party internet access, with users able to regulate the system to their own specifications and infrastructure needs. Made up of various IoT base boards and assembled IoT units, the system captures data with the help of onboard inputs and sensors. This data is stored on the device or in a cloud database, and can be retrieved for real-time tracking and analysis

A modular and advanced IoT-enabled platform brought to you by My SmartSystems

Company: MySmartSystems

MySmartSystems has developed a universal IoT platform that can be used in a wide range of industries, allowing companies in multiple sectors to setup an IoT solution in an easy and efficient manner. All hardware is designed and assembled at MySmartSystems. Edge computing is used to process data at hardware level instead of at server level. All IoT boards have artificial intelligence functions to enable real time decisions to be made, without an end-user needing to be present. The web-based software platform integrates all IoT features and applications into a single environment, and can be viewed on any device with an Internet connection.

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Most Disruptive IoT Solution

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Intelligent Advertising Board

Company: a2d24

A first of its kind technology on the African continent, the Intelligent Advertising Board solution adds intelligence to analogue billboards placed at robot intersections. When the robot is red, image processing technology is used to trigger adverts based on the make and model of the vehicle parked in front of it. Driving an Audi? You might see the latest advert for the next model flash up on the billboard right in front of you. Through the solution's real-time analytics dashboard, a total vehicle count of all passing cars can be collected, vehicle dwell time tracked and more. Marketers can collate a wealth of information and adjust campaigns accordingly.

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2019 Overall Winner

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