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TROLLEYPONDER/ECOTAG/RADAR RFID Newsletter #107

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Your latest copy of our regular newsletter keeping you up to date with developments.

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1. History of the development of the world famous Supertag RFID technology

My school is having a 50 year reunion for our class of 1968. The pupils had gone into a variety of different jobs and many had relocated to different parts of the world. For the past three months the organisers have been trying to make contact with surviving pupils, which is difficult as we never had any reunions before. There have been many emails between the group trying to jog memories about memorable events that happened during the five years we were together so long ago.

In looking at class photos, one realises how fickle is one's memory as I can barely recognise any of my class mates. This got me thinking that before we forget, we need to record the history of Supertag- most probably the most significant development in RFID- where a supermarket trolley full of items was pushed through a scanner and read without unpacking.

Having led the team that developed and commercialised the product, and having invented the protocol, I decided to record the history and show photographs of the early development.

It is an ongoing project but have a look at
History of Supertag

2. The IOT (Internet of thing) and RF sensors such as LORA technology

There are a number of conferences taking place to discuss issues relating to the Internet of Things. If one reads through the list of papers to be presented, one finds they are by software companies relating to the processing of data, and virtually no papers relating to sensor systems to gather this data.

One of the basic concepts proposed in IOT is that there would be low cost transponders, there would be common receivers at convenient places (say cell phone towers) that would collect the data from the sensors and relay them onto the internet to the cloud (Amazon?/turned off by Trump globally at his whim?) who would store the data. You as a user would then run a subscription service

with the cloud provider to retrieve your data.

One of the corner stones of the system is that the sensors would be low cost, have medium range, have long battery life, and could be placed in locations such as fields, or on animals, or floating down rivers, etc. This sensor system is called LORA. This LORA system has huge limitations which are not understood by the software companies as they have no expertise in RF systems but assume it will work to meet their data needs.. The limitations are largely due to the laws of physics and there is no silver bullet.

In the 1980s while working at CSIR we, were approached by a global software/hardware company, to provide a sensor system for labelling assets in a bank to track their equipment being removed from their premises. The company had already spent millions developing the software and just lacked a sensor system. We could not help as the software was about ten years ahead of the sensor developments at that time. I suspect IOT is in a similar position with the sensors being ignored and everybody developing the software.

More about this in later newsletters where we will go more into the LORA system.

3. Product range

Trolley Scan are a manufacturer of UHF RFID systems.

Trolley Scan manufacture fixed readers, portable readers and RFID-radar systems (Real Time Locating systems that give accurate position information) as well as a variety of transponders for different applications. Transponders come in the form of passive transponders with operating ranges up to 20 metres and battery assisted transponders with an operating range up to 40 metres. Trolley Scan also combine some of these components into packages for end users which are supplied with the appropriate software. Typical applications are asset management, notebook tracking, equipment barriers, store control, wild game and cattle monitoring, event logging and sports timing systems.

Trolley Scan have been delivering their RFID solutions for the past 19 years and offer full support for all their equipment.

4. Getting your own complete RFID/radar system

You can order RFID systems or RFID-radar systems from Trolleyscan.com
Trolley Scan provide small RFID reader systems which give new users the ability to evaluate UHF RFID and their applications without needing specialised skills.

Trolley Scan provide a variety of easy starter systems for first time users who have an application that needs a solution. Typical packages are :

- Standard UHF long range readers with antennas and 100 transponders
- RFID-radar system comprising long range reader, antennas and a variety of different transponders.
- RFID-asset tracking systems comprising portable reader, antenna and a variety of transponders with software.
- RFID-notebook/laptop tracking system comprising reader, antennas, transponders and software
- Solar powered RFID reader systems for monitoring livestock.

In addition components such as readers and transponders are available
These systems are already operating in 52 countries.

To find out details of the systems and to order see http://trolleyscan.com/