SMART INDUSTRY & CONTROL ENVIRONMENT SOLUTIONS

Often revolutions look like evolutions to those who are involved at the time. Only with the perspective of history is it clear that a “revolution” happened.

At BEL we believe that “Smart Industry” is an (r)evolution that builds on the many different technology advances over the past decades (evolution) but which will fundamentally change the way factories and workplaces function (revolution). For us “Smart” means doing things more efficiently, more flexibly and in a more environmentally friendly manner. It also means the manufacturing will be safer for people working there.

VISITOR MANAGEMENT SYSTEM

In many facilities, visitors are still registered using a handwritten paper log. While this method is perceived as quick and easy, it provides virtually no security and leaves visitor information available for anyone to see. Automated visitor management systems lend a more professional appearance to check in systems, enhance security and meet compliance mandates for the collection and auditing of visitor data.

Visitor management is the recording and collection of visitor data, either manually or through automated check in software, for the purpose of knowing who is in the facility, who they are visiting and how long they spent there.

We offer highly secure and reliable visitor pass solutions and check in software to meet the needs of small or large organizations.

Key Features

- Enhance the professionalism of the enrollment process and visitor check-in with a digital check in system
- Provide additional safeguards by screening against felony and sex offender watch lists if applicable
- Improve security by identifying who is in a facility quickly and accurately, especially in emergency situations
- Conduct analysis/reporting on visitor data, quickly and easily via visitor management software

EMPLOYEE MANAGEMENT SYSTEM

This Employee attendance management system is used for keeping the record of an employee in an organized organization such as a school, college, university, etc. Our project aims designing an employee attendance system which could effectively manage attendance of employee at institutes, organisation, etc.

This application maintains a database which has the details of the employees such as their name, unique ID, image, designation, date of joining etc. This application must be placed in the head office of any organizations. Employees, instead of signing in the attendance Register, they can simply use this mobile application and enter their unique id. Once ID is given, the front camera of the android mobile phone captures the image of the employee. The captured image is compared with the image in the database for a valid user and attendance is updated automatically.

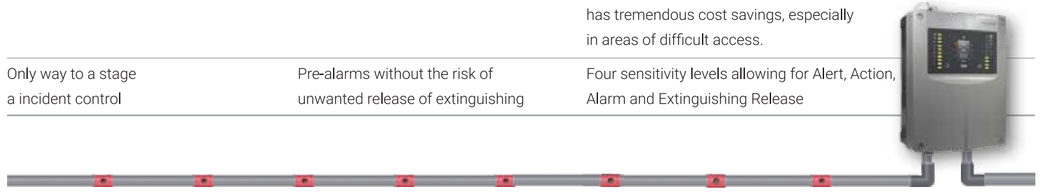
The generated report will be automatically mailed once the time limit exceeds. This image comparison helps in avoiding proxy attendance by other.

Advantages:

- Help in maintaining the computerized employee details
- Calculate the salary
- Easy attendance marking
- More efficient and reliable
- Less time consuming and easy to use
- Avoid human error and effort for maintaining daily data
- Huge data storage with less computer memory

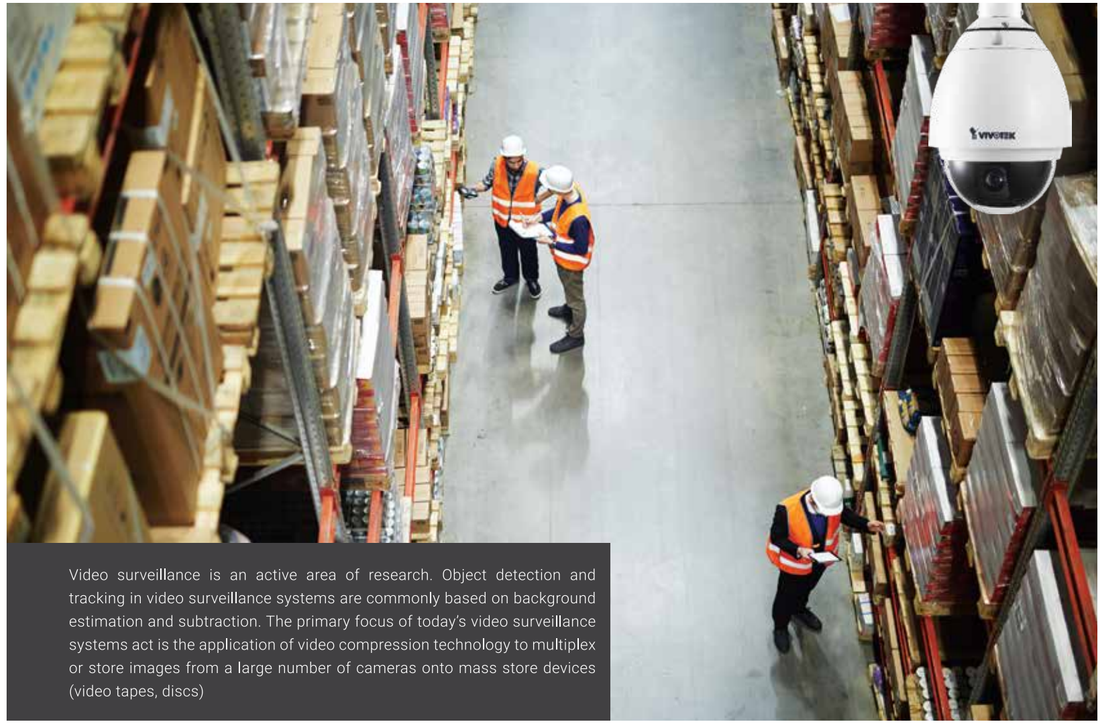
FIRE AND SAFETY

Claim	Benefit	Proof
Most reliable and early detection	Early Warning despite stratification	Actively sampling the air on different levels
Most efficiently serviceable system	High returns during maintenance	Avoiding the need to test every sampling point with smoke has tremendous cost savings, especially in areas of difficult access.
Only way to a stage a incident control	Pre-alarms without the risk of unwanted release of extinguishing	Four sensitivity levels allowing for Alert, Action, Alarm and Extinguishing Release



VIDEO SURVEILLANCE

BAJAJ



Video surveillance is an active area of research. Object detection and tracking in video surveillance systems are commonly based on background estimation and subtraction. The primary focus of today's video surveillance systems act is the application of video compression technology to multiplex or store images from a large number of cameras onto mass store devices (video tapes, discs)

From the perspective of real-time threat detection, it is well know that human visual attention drops below acceptance levels, even when trained personnel is assigned to the task of visual monitoring. On the other side, video analysis technologies can be applied to develop smart surveillance systems that can aid the human operator in real-time threat detection [2]. Specifically, multiscale tracking technologies are the next step in applying automatic video analysis to surveillance systems.

Application of visual surveillance include car and pedestrian traffic monitoring, human activity surveillance for unusual activity detection, people counting, etc. A typical surveillance application consists of three buildings blocks: moving detection, object tracking and higher level motion analysis. Multimedia systems can provide surveillance coverage across a wide area, ensuring object visibility over a large range if depths and can be employed to disambiguate occlusion.

Video surveillance has been a key component in ensuring security at airports, banks, casinos, and correctional institutions. More recently, government's agencies, businesses, and even schools are turning toward video surveillance to increase public security.

With the proliferation of inexpensive cameras and the availability of high-speed, broad-band wireless networks, deploying a large number of cameras for security surveillance has become economically and technically feasible.

BUILDING AUTOMATION CONTROL

Building Automation Control is the automatic centralized control of a building's heating, ventilation and air conditioning, lighting and other systems through building automation system (BAS). The objectives of building automation are improved occupant comfort, efficient operation of building systems, reduction in energy consumption and operating costs, and improved life cycle of utilities.

Building automation is an example of a distributed control system – the computer networking of electronic devices designed to monitor and control the mechanical, security, fire and flood safety, lighting (especially emergency lighting), HVAC and humidity control and ventilation systems in a building.

BAS core functionality keeps building climate within a specified range, provides light to rooms based on an occupancy schedule (in the absence of overt switches to the contrary), monitors performance and device failures in all systems, and provides malfunction alarms to building maintenance staff.

A BAS should reduce building energy and maintenance costs compared to a non-controlled building. Most commercial, institutional, and industrial buildings built after 2000 include a BAS. Many older buildings have been retrofitted with a new BAS, typically financed through energy and insurance savings, and other savings associated with pre-emptive maintenance and fault detection.

ASSET TRACKING

Advanced RFID tags and components are essential to optimizing automated asset tracking and logistics systems. Our transponders help ensure seamless traceability and reduce losses, while enhancing stock management and processing speed. Passive contactless RFID tags improve data collection speed and accuracy, making tracking more cost-effective while increasing accuracy.

Asset tracking uniquely identifies any object without line of sight by affixing or embedding a RFID tag. Tracked assets enable workflow optimization, real-time inventory or location services and help reduce human error.

Key Features

- Hundreds of standard configurations and thousands of applications
- Proven performance in low frequency, high frequency and ultrahigh frequency (UHF). Select from a broad range of form factors, chip configurations and memory capacities for the optimal technology that meets your needs
- Rugged RFID tags are designed to withstand the natural elements, from sub-freezing cold temperatures to tropical heat, rain, heavy snow, and UV rays