



Bosch equips IncarPalm cardboard factory in Ecuador with video-based fire detection

July 2021

PI 11366 BT/COM

AI algorithms secure industrial sites handling flammable pulp and paper materials with fire detection within seconds, even in low-light conditions

- ▶ Aviotec fire and smoke detection cameras from Bosch protect large cardboard packaging factory in city of Machala, the capital of the country's banana export industry.
- ▶ Powered by AI algorithms, the video-based fire detection solution senses smouldering fires within seconds; faster than conventional point-type detectors.
- ▶ Integrated solution is customized toward client requirements and challenging environmental conditions inside factory.

Grasbrunn – Bosch Building Technologies has installed an innovative fire detection system at a key manufacturing site for corrugated cardboard in Ecuador: At the factory operated by Industria Cartonera Palmar (IncarPalm), the video-based fire detection system Aviotec provides around-the-clock fire safety amid challenging conditions thanks to innovative AI algorithms. IncarPalm is a key supplier of shipping materials for Ecuadorian export goods such as bananas, seafood and flowers. Typical for pulp and paper manufacturing, the factory deals with large concentrations of dust that lead to high flammability and low visibility. IncarPalm relied on Bosch partner Adeatel to install a system that complies with legal guidelines for high-risk manufacturing sites while exceeding the performance of conventional fire detectors and reducing false alarms. Integrated on the Bosch Video Management System (BVMS), the intelligent video sensors rely on machine learning algorithms to detect fires at their source within seconds, thereby ensuring safety and business continuity at the site in Machala, capital of Ecuador's banana industry.

“Designing and implementing a fire detection system including video analytics has been a very satisfactory achievement. Being able to count on different technologies that generate high added value for our client reinforces us as

certified installers and encourages us to promote these alternatives to the local market,” said Alberto Serrano, Project Engineer at Adeatel S.A.

Around-the-clock fire safety under challenging conditions

Before choosing the video-based solution from Bosch, IncarPalm was looking to comply with local legal requirements for the pulp and paper industry, which had been updated in collaboration with fire protection services. What’s more, the paperboard factory houses large amounts of industrial machinery while the paper-based raw materials generate a dry, dusty, and highly flammable environment. Plus, heat from machinery such as IR dryers and conveyor belts poses additional fire hazards to raw pulp paper sheets and finished cardboard products. As IncarPalm learned, conventional point-type detectors fall short of providing fire safety under these conditions. That’s because these devices rely on detecting smoke particles in the air, which can take several minutes to rise – especially when detectors are mounted on high warehouse and factory ceilings. But in that short time span, fire can already spread and potentially harm employees, while an entire business could literally go up in smoke.

Responding to IncarPalm’s specific requirements, the experts performed a thorough site assessment and conceptualized an integrated system based on a new generation of intelligent fire detection: It relies on light signals that travel much faster than smoke particles to spot smoke and fire even in the smouldering stages. Built-in machine learning algorithms, programmed to sound alarms for colour changes and visual patterns associated with fires, can detect fires within seconds. The Aviotec IP Starlight 8000 devices deployed at the warehouse are VdS-certified and highly resistant against false alarms; they can also operate in the dusty and low visibility environment that is typical for cardboard manufacturing. Additional challenges included vibrations from the machinery and pipes, solved by adjusting the position and sensitivity settings of Aviotec devices on the premises. As live tests confirm, the solution can now sense active flames within seconds.

The installation of the video-based fire safety solution is the first of its kind in all of Ecuador, but not the last: IncarPalm is currently expanding Aviotec coverage across its compound, including new infrastructure for cardboard manufacturing and storage. Meanwhile, other businesses in the region are noticing the added safety, and supply chain integrity afforded by the intelligent system.

Press photo: #c34d91b1, #11463fef, #3fdb0f4

Contact person for press inquiries:

Florian Lauw

Phone: +49 89 6290-1647

E-mail: Florian.Lauw@de.bosch.com

The Bosch division Building Technologies is a leading global supplier of security, safety, and communications products and systems. In selected countries Bosch offers solutions and services for building security, energy efficiency and building automation. About 8,800 associates generated sales of 1.9 billion euros in 2020. Protecting lives, buildings and assets is the major aim. The product portfolio includes video security, intrusion detection, fire detection and voice evacuation systems as well as access control and management systems. Professional audio and conference systems for communication of voice, sound and music complete the range. Building Technologies develops and manufactures in its own plants in Europe, Americas and Asia.

Additional information is available online at <https://www.boschbuildingtechnologies.com>

The Bosch Group is a leading global supplier of technology and services. It employs roughly 395,000 associates worldwide (as of December 31, 2020). The company generated sales of 71.5 billion euros in 2020. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 129 locations across the globe, Bosch employs some 73,000 associates in research and development, of which nearly 34,000 are software engineers.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, <https://twitter.com/BoschPress>

In der Fabrik des Herstellers Industria Cartonera Palmar (IncarPalm) sorgt das videobasierte Brandmeldesystem Aviotec dank innovativer KI-Algorithmen rund um die Uhr für Brandschutz unter schwierigen Umgebungsbedingungen.

At the factory operated by Industria Cartonera Palmar (IncarPalm), the video-based fire detection system Aviotec provides around-the-clock fire safety amid challenging conditions thanks to innovative AI algorithms.

Pressebild Nr.
Press Photo No.
#3fdb0f4

zu Presse-Information
See Press Release
PI 11366

Nachdruck für redaktionelle Zwecke
honorarfrei mit Vermerk „Foto: Bosch“

Reproduction for press purposes free
of charge with credit
“Picture: Bosch”

Alle Bosch-Pressebilder finden Sie
unter www.bosch-presse.de

You can find all Bosch press photos at
www.bosch-press.com

www.bosch.com



Dank KI-Algorithmen erkennt videobasierte Branderkennung
Schwelbrände innerhalb von Sekunden und schneller als herkömmliche
Detektoren.

Powered by AI algorithms, the video-based fire detection solution
senses smouldering fires within seconds; faster than conventional point-
type detectors.

Pressebild Nr.
Press Photo No.
#11463fef

zu Presse-Information
See Press Release
PI 11366

Nachdruck für redaktionelle Zwecke
honorarfrei mit Vermerk „Foto: Bosch“

Reproduction for press purposes free
of charge with credit
“Picture: Bosch”

Alle Bosch-Pressebilder finden Sie
unter www.bosch-presse.de

You can find all Bosch press photos at
www.bosch-press.com

www.bosch.com



Bosch rüstet Fabrik für Kartonverpackungen in Ecuador mit videobasierter Branderkennung aus.

Bosch equips IncarPalm cardboard factory in Ecuador with video-based fire detection.

Pressebild Nr.
Press Photo No.
#c34d91b1

zu Presse-Information
See Press Release
PI 11366

Nachdruck für redaktionelle Zwecke
honorarfrei mit Vermerk „Foto: Bosch“

Reproduction for press purposes free
of charge with credit
“Picture: Bosch”

Alle Bosch-Pressebilder finden Sie
unter www.bosch-presse.de

You can find all Bosch press photos at
www.bosch-press.com

www.bosch.com

