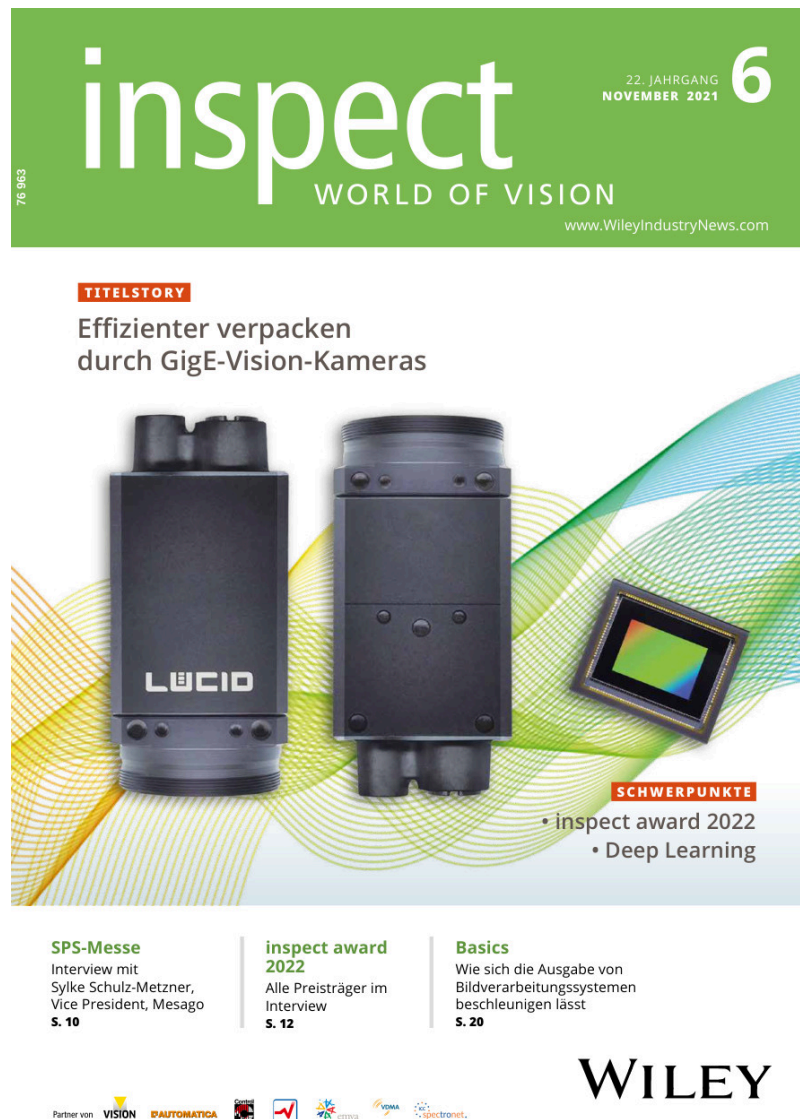


inspect

6/2021 · November 2021

UNOFFICIAL ENGLISH TRANSLATION

The original article was published in German in inspect, a trade magazine published in Germany. Prepared for CRETEC. The German original remains the reference.



Just pour the parts in

The article discusses the inspect award 2022; the supplied issue cover and article footer both identify November 2021 / 6/2021. These source dates are retained. Original publisher artwork, logos and advertisements are retained in their original language.



Just pour the parts in

Award-winning product: QBIC Robotic Vision Control inspection system

Simply pour in the unsorted parts, wait briefly, and the good parts collect at the other end of the system. This is how inspection works with QBIC Robotic Vision Control from Cretec Cybernetics, with AI support if required. Managing director Alexander Trebing explains more about the inspection system, which won third place in the inspect award 2022.

What makes the QBIC Robotic Vision Control inspection system special?

The special feature is that, despite the repeated demand for individual machine-vision products, we have developed a standard system that can easily inspect parts from 5 to 80 mm. The parts are simply separated from bulk material and inspected. The user pours unsorted parts into the feeder and receives them sorted into OK and NOK categories, complete with statistics and everything else. On the machine-vision side, we can inspect conventionally, for example for dimensional accuracy, or use artificial intelligence to inspect surfaces and other variable defect patterns.

What role does artificial intelligence play?

For us, AI is not the new big thing, but an extended toolset that enables many inspections that were previously difficult or impossible to implement. Existing inspection with conventional machine vision remains relevant and necessary - think of measurement, for example. With AI, however, we can now inspect what employees previously had to check because the defect pattern was too variable. We can now say that if a defect can be recognised as such on the screen, we can also teach the system to detect it automatically.



The proud winners Andreas Welzl, CTO (left), and Cretec Cybernetics managing director Alexander Trebing (right) celebrate third place in the Automation & Control category of the inspect award 2022 with inspect editor-in-chief David Löh. Image: Cretec.

How can the system be integrated into a production line?

We built on our QBIC concept, which consists of hexagonal cells. Its advantage is that we can connect feeds and outfeeds from different sides, making the system easy to integrate into existing lines or add at the end. Integrated castors also make it easy to move the system to another line. It is narrow enough to fit through a normal doorway.

Which applications suit the system best, and where are its limits?

There are no application-related restrictions. Only the size of the components that fit through the system is limited in its present configuration. This cell handles parts up to 80 mm. For larger parts, the cell has to be built differently. Apart from that, the only limit is the cycle rate. If parts are supplied in bulk, separated and picked individually by the robot, the rate is ten parts per minute. For a

faster rate, the feed has to be changed to a conveyor. With the same machine vision, the system then handles up to five parts per second.

What about automation options?

We can integrate any robot the user wants. At Vision, for example, we were asked about cobots. That is no problem. Our radar-based safety system monitors the entire cell in three dimensions all the way around, allowing us to dispense with a protective enclosure in every case. Even normal industrial robots therefore require no fence.

Further product information:

www.wileyindustrynews.com/news/inspect-aw

AUTHOR

David Löh · Editor-in-chief, inspect

CONTACT

Cretec Cybernetics, Büdingen
+49 6042 565 259 510
hello@cretec-cybernetics.com
cretec-cybernetics.com