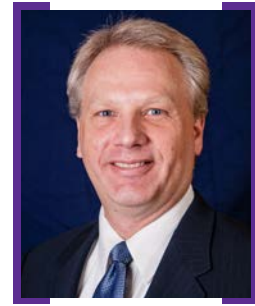


# Plugged In



At the recently concluded Automate 2019 and Promat trade shows (held in Chicago in April), we saw a lot of new technology aimed at making factories more efficient and productive.

The Industry 4.0 concept continues to evolve, and the Industrial Internet of Things (IIoT) continues to expand the way we design, manufacture and maintain mechanical equipment.

Bearings, gearmotors and gear drives are no longer just dumb components, tasked with doing the same job over and over. Power transmission components are getting plugged in. They're being fitted with sensors, encoders and controls that allow information about their performance to be collected, analyzed and acted upon.

And we're not talking about academic endeavors here, either. Real-time information about temperature, vibration, torque and speed is making its way into the hands of plant managers and maintenance professionals via their cell phones and tablets. Failures are being anticipated and planned for, and productivity is being maintained.

That same information is being collected, sent to the cloud and analyzed by artificial intelligence, so that engineers designing the next generation of systems are equipped with the data they need to make those systems more productive, robust and efficient.

Over the next several issues, we look forward to bringing you some of those stories.

In the meantime, we hope you enjoy our current issue, with its focus on bearings, clutches and brakes. For bearings, don't miss associate editor Alex Cannella's interview with the experts at Schaeffler, beginning on page 20. We also have two very intriguing bearings-related technical articles this issue. You can read them on pages 44 and 50.

For clutches and brakes, please read senior editor Matthew Jaster's article about clutches and brakes for harsh environments. Matt spoke with experts from a number of leading suppliers. You can read it on page 30.

Speaking of harsh environments, don't miss the case study from Force Control Industries on page 26. It deals with an innovative clutch-brake solution in a cement board manufacturing plant.

As always, thanks for reading.

