

Technology Trends in Industrial Automation for 2018

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When Moore observed the fact that the number of transistors in an IC doubles approximately after every two years, it was believed to be the basic principle for survival of any technology. Later, Moore's observation was loosely stated as any technology doubles its productive capacity in 18 months. This laid the foundation for all technological developments. Further today we observe that even this 18 months period has been shortened and technological leaps happen within a year. Manufacturing typically is the most impacted field due to any technological advancement. Here we look at the five technological trends that will disrupt the manufacturing sector in next 12 months in India:

- 1. Adoption of Voice:** For quite long, scanning as a technology has dominated the warehousing industry. Barcodes have been seen as the most effective solution for picking & put away. With AI based Voice engines becoming more mature, reliable and their availability in regional languages, there shall be increase use of



Voice in warehouses for picking and put-away process. Due ease of use, increased productivity and robustness, voice based solutions are poised to replace scanning in warehouses in India.

2. Bluetooth Based Asset Tracking: With the logistics startups disrupting the transportation sector and incoming of GST reducing the Truck Turn-Around Time during transportation, companies would be focusing on optimising their internal workflow and keeping operational costs low. As such cost-effective asset tracking solutions shall be the talk of the town. Being Robust with longer battery lives, encryption-based security and very high accuracy, “Bluetooth Low Energy” beacons based RTLS solutions and asset tracking will replace the existing RFID based asset tracking systems.

3. Smart Factories: For quite some-time now we have been hearing and talking about smart factories. Smart factories are all about connected machines. Competitive pressures and onslaught of technology such as cloud, augmented reality etc. will prompt manufacturers to look to Industrial IoT solutions to connect the different processes to drive operational gains and to drive agility and scalability. Areas like remote diagnostics, predictive maintenance, and fire hydrant management shall be the first areas for disruption and prove to be successful use cases for IoT solutions.

4. Entry of Mobile Robots: With the automated driving market heating up with multitude of startups competing to take the lead, resulting in maturity of technology, this year will see adoption of automated guided vehicles in manufacturing and warehousing sector in India. Industry will migrate to more advanced navigation technologies such as LIDAR, RADAR & Cameras from the existing basic magnetic tape solutions.

5. Data Speaks Up: Big Data has been in vogue since quite some time and manufacturing has already been having a big chunk of data to operate on. This year we will see business using AI-enabled software platform to take complex decisions on predicting the breakdowns in machines and avoid downtimes. Products which can help in predicting breakdown patterns and improve productivity shall be the mainstay in manufacturing this year.

