

# Re-imagine processes using design-thinking principles

*"Enterprises do not have much choice than to make a move towards intelligent automation"*

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The level of automation is being redefined upwards with the support of Make in India campaign, says Ajay Gurjar, Deputy COO & Head of Business Operations, Yaskawa India (Robotic Division). He discusses how Indian manufacturers can only make the most of 'Make in India' by establishing manufacturing facilities which are world class.

#### **'Make in India' for India's industrial automation sector**

With the Make in India initiative, India's objective is to be an epitome of manufacturing hub and at the same time be globally competitive. There are many factors which are considerably changing the outlook of the industry such as ever-increasing need of complying to global standards, the constant need for improving operational excellence, desire for zero defects, productivity and quality improvement, etc.

Industrial automation industry is in an evolving phase. Efforts are being enhanced to achieve the ambitious target of making manufacturing contribute to India GDP and create 100 million jobs by 2022. This is further supplemented by certain macroeconomic factors which are poised to bring a positive effect on manufacturing such as Increasing population, present lower per capita consumption and increasing purchasing power is driving the demand upwards.

The opportunities in automation sector in India across various verticals are growing manifold. On one hand, the opportunities are on account of additional capacities being put in place to meet growing demand. Whereas on the other hand, the level of automation, which is relatively low in India as compared to global standards, itself is being redefined upwards with the support of Make in

India campaign. Over all, the environment is very much encouraging for automation industry in India.

#### **Industry 4.0 and IIoT are gradually making inroads**

Indian government has demanded the Indian manufacturers to adopt advanced manufacturing processes to ensure the success of 'Make in India' initiative. Currently, the adoption is only seen in 10 per cent of companies and 80 per cent is expected to be adopted by 2020.

Indian manufacturers can only make the most of 'Make in India' by establishing manufacturing facilities which are world class. It is imperious to attain global standards to cater to the Indian and global market effectively. For this, the manufacturers need to invest more in terms of automation and the latest equipment and technologies.

Apart from this, Industry 4.0 and IIoT which are gradually making inroads could emerge as the game changer for Indian manufacturing; looking at the ever changing dynamics of the technology world. They can enable manufacturers to improve their productivity and quality manifold. Thus, helping them progress in the automation investment phase because many of the Indian manufacturing companies have not yet invested extensively in the traditional automation. So now they can make a smarter investment by adopting IIoT technologies.

#### **Industry 4.0, an additive advantage for automation or a lucrative investment destination by other countries**

Industry 4.0 and IIoT is actually a melange of many futuristic and advanced concepts and technologies



which have the potential of transmuting the production scenario in the 21<sup>st</sup> century. It mainly comprises of a 'connected shop floor' where data is collected from various sensors and other input devices to be used for predictive maintenance, better control and long term analysis.

India has already positioned itself as a global manufacturing hub and has opened its resources for companies to set up production base in the country. Industry 4.0 is expected to be led by MNCs and large professionally managed Indian companies.

#### **Robots, creating more efficient manufacturing operations**

The production of industrial robots has grown tremendously over the past few decades. Being an inseparable part of today's manufacturing industry, robots have taken over many of the sensitive production tasks that demand ultimate precision and repeatability. Robots have indeed transformed manufacturing operations all around the globe.

With an increase in consumer demand, the automation technology has expanded its scope and applicability. The automated production processes help manufacturers increase their profit potential and meet market expectations. Robotics improves the overall efficiency of a manufacturing process by creating efficient means of completing production tasks. Unlike humans, robots do not get tired and can work for days while meeting the quality and quantity requirements simultaneously. Modern industrial robots have the ability to adapt and take critical decisions during operations.

A sharp increase in the use of automated systems would change the way businesses evaluate their production and expansion plans. From precision machining and assembling to material handling, robots have been making things easier for manufacturers all around the globe.

#### **Robotic process automation makes the traditional automation obsolete. Or will it?**

Robotic process automation (RPA) has been the superhero for industries for a long time. Automation has led to increased efficiency, reduced risks, compliance maintenance, and enhanced profitability. As the technology has made enormous strides, RPA has come up and quickly become the new approach to automate business processes, while replacing traditional automation.

Traditional automation still finds applications in several systems and has its own set of pros and cons. With RPA, however, the organizations can develop quick, smart and cost-effective tools to boost efficiency and thereby make greater impact and improvement in profits and revenue.

#### **Adopting intelligent automation**

The next stage in the automation journey beyond robotic process automation (RPA) is intelligent automation (IA), which includes technologies such as machine learning and dynamic workflow. Intelligent automation initiatives help to improve customer experiences, resulting in higher revenues, greater competitiveness, and increased market share.

To adopt intelligent automation, it is important for organizations to re-imagine processes using design-thinking principles to create winning customer experiences, and end-to-end solutions, while managing compliance and governance. Enterprises need to focus on integration of RPA and emerging technologies. Intelligent automation will evolve to leverage artificial intelligence over time, achieving the next era in automation, with more significant benefits.

In today's hyper-competitive world, enterprises do not have much choice than to make a move towards intelligent automation. ⚙️