

Technology Update

Robot Factory in Shanghai sets standards

The excellent new workshop of the ABB in China as said by Sami Atiya, the manager of the business domain robotics and the world production automaton.

Sami Atiya who is since 2019, the member of ABB concern as manager and competitive responsible person for worldwide robotic and discrete automation marks the robotic position in Shanghai as milestone for ABB, on the query of VDI says, "We have with our new and fully automated robot factory in Shanghai transformed in reality our vision of the "Factory of Future". We install robot modern digital and automated technologies for the manufacture of robots of the next generation to express simply: it does not give rigid assembly lines on which round the clock the same robots are manufactured. There are flexible modular production cells for the use. These are digitally internetted and are served of intelligent automated mobile robots. In this way we save in comparison to traditional factories 50% place and raise the production efficiency to 300%.

What does this mean actually: A good example is the automatic assembly line for our robotic control omnicores. It can prepare the ground for 300 modules with thousands of options within a timeframe of 3.5 minutes simultaneously we incorporate intelligent artificially intelligent supported robot system (for our robot control) to take over the functions as screws and material handling and relieve representatives of these partial physically very strenuous assignments. It gives still further advantages: As for example with assembly of gears, to the robots we allow an accuracy of 100% while without the incorporation of AI, all the accuracy lies only about 20%.

All these technologies are imbedded in a digital ecosystem for the production that helps us to improve the performance and to maximize the productivity through data recording and analysis. It is not an individual technology which I can highlight rather the joint venture of our most modern development for the flexible production. Moreover with the exact intelligent automatic control and modular production principles we help our customers optimize their processes.

About the investment in Shanghai he said that the market is not only impressive because of the size but also by its growth. In 2021 every second robot was installed in China. China's massive investment in the industrial robotics has brought the country for the first time in the top five automatic controlled robot dense countries of the world. We expect that the number in 2025 rather will be doubled. Also in the coming years we see in China increased potential for further growth in the automation.

The enquiries about robots in China are at the present time record high. With the expansion of our production capacity we are now in the position to serve these high queries, however we produce in China for China only; that is our business strategy. It is valid for new branches as logistic and the individual handle likewise for traditional market branches as the automobile and electronic industry.

More than 90% of our robots for the Chinese customer are manufactured in China. We increase with the new robot factory our production capacities. We produce in China for the entire Asian region. With that we can serve the rising enquiries about robots and automation solutions and help the Chinese companies along with in order



to develop more locally manufactured products, solutions and service performance.

Our new robot factory in Shanghai is one of the three ABB robot factories worldwide. The workshop in Sweden supplies customers in Europe and the workshop in Auburn Hills in Michigan serves the customers of North and South America.

Our new fully automated mega factory Shanghai is today certainly model for a quick, robust and efficient production. However, also in other locations we have invested this year. In July already a new global innovations and school campus was set up for the machine automation in Austria, following the bearing factory 4.0 in Berlin in September.

Innovation is a component of our DNA and we want to support the customers throughout the world. In order to react upon robotic and automation about the up-to-date trends, how the shortage of technical personnel the rising enquiry about personalized production or importance to manage permanently”.

Source: Technik & Wirtschaft, 30 Dezember 2022; Nr. 26, Seite 18, VDI nachrichten, von Martin Ciupek

Anil Kumar Ghosh[†]
Editor-in-Chief

[†]ORCID: Anil Kumar Ghosh: <http://orcid.org/0000-0002-8833-8676>
