

Human centered collaboration and cooperation with robots in the field of automobile manufacturing sites

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Abstract

Cobots have come to be used in many manufacturing fields. On the other hand, there are many issues of risk countermeasures due to being caught in work-pieces and jigs, and research and development as a means of ensuring more practical safety and security and helping each other in the future is desired. In this report, we will provide topics on examples of collaborative use of automobile manufacturing sites and evaluating the physical burden on people using cyber-physical systems. We will discuss future issues and prospects for people-centered collaboration and collaboration and propose "RICH" Real-time Inter Collaborated Harmonization concept.

Image



Figure.1 Future works for human centered manufacturing

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Biography

Kazutsugu Suita received the B.S. Degree from Osaka Prefecture University, Osaka, Japan, in 1989, the M.S. degree from Toyota Technological Institute, Nagoya, Japan, in 1995, and the Ph.D. in Eng. degree from University of Tsukuba, Tsukuba, Japan, in 2021. As business activity, joined Toyota Motor Corporation in 1989, Toyota, Japan, where achieving on development special robot system and installation for

body assembly manufacturing sites, and vehicle quality inspection process engineering and end of test line development and installation. Currently focusing on the development of industrial robot systems for human centered manufacturing. ISO/TC299/WG3 (Industrial Robot) expert and Japan domestic committee member.