

Overview



Author: *Yasushi Umeda**

Requirements for digital production systems in the future

The digitization and networking of production systems has been acknowledged widely. Amid such fast development of information technologies for the cyber layer of cyber physical production systems (CPPSs), at this stage it is crucial to use such technologies efficiently to create new value. However, there is still no clear winning formula anywhere in the world. In particular, it is important to leverage the advantages of the Japanese manufacturing industry in the new framework of CPPSs to make the industry world-leading. The main advantage is “high-quality manufacturing,” which includes skilled labor, high-quality products, precise manufacturing without defects, constant improvement of manufacturing processes, and cost reduction. Accordingly, CPPSs involving many cutting-edge IT should focus on supporting individuals, diligently helping operators and engineers at manufacturing sites to make improvements on site, and identify and solve problems. Production system engineers will be increasingly required to use such CPPSs efficiently to develop, design, and operate production systems, solve problems, and make improvements.