The projection of cyber and physical systems digital twins in the stage of production technological preparation of the Industry 4.0 smart factories

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The task is to create a cyber and physical system digital twin. Cyber and physical systems digital twins are components of the Industry 4.0 smart factories and is done with cloud services (resources) of digital production. The projection of cyber and physical systems digital twins is done in the stage of new type item technological production preparation (putting the item into production). If this is a wide cyber and physical system its digital twin is created in the digital factory and is part of cyber and physical system supply.

The projection of digital twin must be done in connection with the physical part of this system projection. There is a scheme how to project the physical part of cyber and physical system. There is also a scheme how to project a virtual component of cyber and physical system (digital twin). The scheme base for the virtual component is the control program (information resource) and a set of clouds to automatize the project activity.
Figure 1. A scheme how to automatize the projection of cyber and physical systems digital twins.
Figure 2. A scheme how to model project procedures to create cyber and physical systems digital twins of industrial purpose.