

CONNECTIONS AND INTERFACES OF MECHATRONIC COMPONENTS ON DIGITAL FACTORY

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Rezumat. În ultimii ani, componentele mecatronice ale fabricii digitale manifestă un interes din ce în ce mai mare. Astfel, au apărut noi oportunități în acest domeniu. Componentele fabricii digitale, cum ar fi mecanica, electronica și software-ul, trebuie dezvoltate independent, astfel încât să formeze la final un sistem. Drept urmare, fabrica digitală este un astfel de sistem. Mecanica evoluează practic spre informatică și, prin urmare, avem un produs finit cu o precizie mai mare, funcționând mai repede și mai fiabil. Fabrica digitală oferă o gamă completă de hardware, software și servicii încorporate bazate pe tehnologie. În această lucrare ne vom referi la componentele mecatronice, precum și modul în care sunt utilizate în fabrica digitală.

Abstract. In recent years, the mechatronic components of the digital factory are showing increasing interest. Thus, new opportunities have emerged in this area. Components of the digital factory, such as mechanical, electronics and software, need to be developed independently so that they finally form a system. As a result, the digital factory is such a system. Mechanics evolves practically towards computer science, and as a result we have a finite product with greater accuracy, working faster and more reliable. The digital factory offers a full range of embedded hardware, software and services based on technology. In this paper we will refer to the mechatronic components, as well as how they are used in the digital factory.

Keywords: Mechatronics, Control interface/ computing hardware, Digital factory

1. Introduction

Mechatronics is a multi-disciplinary approach to product and manufacturing system design. Mechatronics, the mechatronic engineering, is a synergic and systematic combination of mechanics, electric/electronics and real-time computing, with `mecha` from the word mechanism and `tronics` from the word electronics (Fig. 1).

The interest of this interdisciplinary engineering area is to design powerful automated systems and allow for the control of complex systems.

The term "mechatronics" was introduced by an engineer from the Japanese company "Yaskawa Electric Corporation" in 1969. The term mechatronic appeared officially in France in Larousse 2005.

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