

Abstract

Amerongen, Job van, *"Mechatronic Design: A Port-Based Approach"*, Keynote speech in the Fourth International Symposium on Mechatronics and its Applications (ISMA07), March 26-29, Sharjah, United Arab Emirates, pp. 8, 2007

In this paper we consider the integrated design of a mechatronic system. After considering the different design steps it is shown that a port-based approach during all phases of the design supports a true mechatronic design philosophy. Port-based design enables use of consistent models of the system throughout the design process, multiple views in different domains and reusability of plant models, controller components and software processes. The ideas are illustrated with the conceptual and detailed design of a mobile robot.