

Computer Aided Design of Mechatronic systems

Summary

Author presents how to use software engineering tools in design of mechatronic systems. UML is graphical language for visualizing, constructing and documenting artefacts of systems. UML models are essential for communication among project teams and to manage the complexity as they increase in scope and scale. UML improves design quality and reduces time to market.

CAD/CAM and CAE tools are widely used in design but they do not solve problems of integration of subsystems of different physical nature. This can be achieved using UML and Modelica, new language for physical modelling.

Example of modelling and simulation and prototyping are included, as well as glossary related to mechatronic design and references. In author's opinion, UML and Modelica will be widely accepted in mechatronic design.