**Real-Time Embedded Systems Modelling Approaches**

Abstract

Real-time Embedded Systems is a reactive systems characterized by a continuous interaction with their environment. They typically continuously receive inputs from their environment and, usually within quite a short delay, react on these inputs. Correctness and well-functioning of this reactive systems is crucial. To obtain correctly functioning and dependable reactive systems, a coherent and well-defined methodology is needed in which different phases can be distinguished. In this paper, we identify various approaches for Real-time Embedded Systems Modelling, phases of development for a correctly functioning and dependable reactive systems and benefits of model checking.