Introduction

In this thesis, the student will investigate the integration of BIP (Behavior-Interaction-Priority) model of computation (MoC) into Ptolemy II, which is a well-known research tool for the design and simulation of heterogeneous cyber-physical systems. This thesis involves an investigation how to realize the BIP MoC into abstract semantics in Ptolemy II, together with a study how to seamlessly execute BIP models in a heterogeneous context having a mixture of diverse MoCs. Detailed work packages, depending on the thesis type, shall be discussed with the thesis advisor.

Benefit

This thesis is very suitable for students who intend to continue their doctoral studies in renowned universities in the embedded system domain. A successful finish of the thesis implies a strong recommendation from well-known researchers in US and Europe. The student will also learn precious experiences in the process of participating in a large software project.

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