Dependable Multi-Robot Cooperative Tasking in Uncertain and Dynamic Environments

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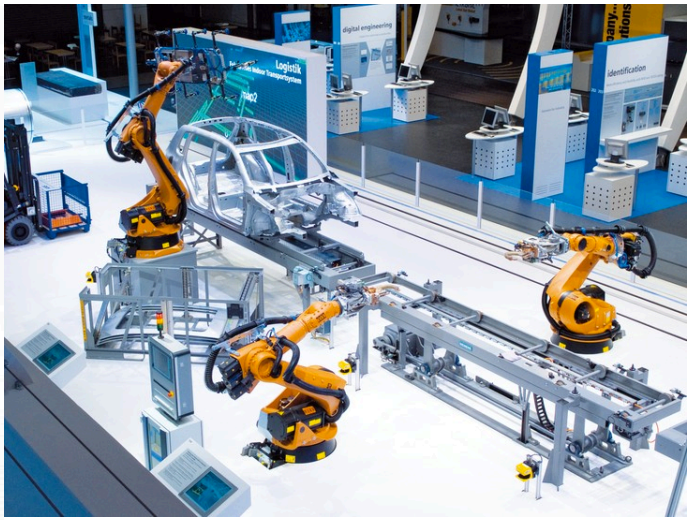
Description

Goal: Focusing on multi-robot teams, the goal of the research is to build foundations for a provably correct formal design theory for large-scale CPSs. This design theory will guarantee a given global performance of multi-robot teams through designing local coordination rules and control laws.



Findings

We started from top-down design and focused on high-level mission planning. Eventually we come up with idea to **combine** top-down and bottom-up approaches, which shows promises towards a **scalable** formal **correct-by-design** method for distributed coordination and control of multi-robot systems in **uncertain environments**.