

When designing a complex Cyber-Physical System it is often impossible to foresee all potential situations in advance and prepare corresponding tactics to adapt to the changes in dynamic environment. This greatly hurts the system's resilience and dependability. All kinds of trouble can rise from situations that lie beyond the expected "envelope of adaptability" from malfunction of one component to failure of the whole system. Self-adaptation approaches are typically limited in choosing a tactic from a fixed set of tactics. Meta-adaptation strategies extend the limits of system's inherent adaptation by creating new tactics at runtime. This thesis elaborates and provides implementations of selected meta-adaptation strategies for IRM-SA in jDEECo as well as their evaluation in a scenario based on a firefighter coordination case study.