

**Abstract**

With the ongoing change in the energy sector towards renewable energies, the energy generation is becoming more distributed. With this, new approaches on the grid control arise, i.e. distributing the controlling functionalities. These approaches are more reliant on information technologies, which opens new attack possibilities against the power grid. Thus, research in resilient implementations of grid control is required. This thesis tries to contribute to this, by abstracting the software functionalities from the physical control devices and implementing them in a framework which supports migration of the software between physical entities. We will use the IoT framework Calvin to implement State Estimation - a grid control function - in a distributed manner. First, we investigate how the resilience can be enhanced by using Calvin. Then we test the feasibility of the Calvin framework and the resilience of our implementation.