

## **Abstract**

### **Development and testing of an energy management system for a hybrid car with a double-rotating electrical machine for the power distribution**

The presented work was developed at the laboratory for automation engineering, power electronics and electrical drives at Technische Hochschule Köln. It deals with the development of an energy management system for a hybrid-car which was developed at the same laboratory. The used hybrid-car is a split hybrid with a combustion engine as a range extender, a double rotating electric machine for power distribution, and two additional synchronous machines at the rear axle. Due to the topology used in this project, a lot of possibilities are available for the design of the energy management system. In this thesis the development as well as the function of the ems were shown and documented.