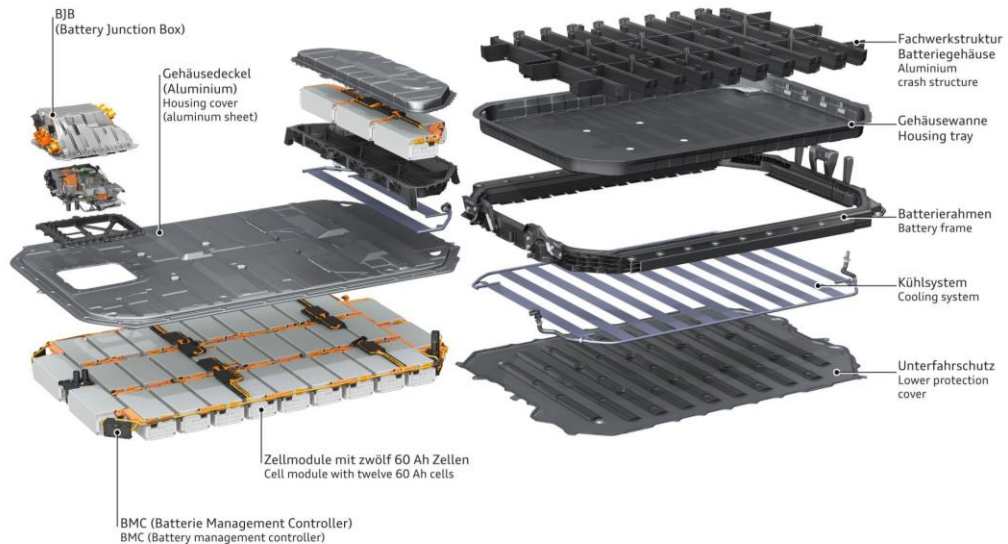


Masterarbeit / Bachelorarbeit

Application-specific cell selection for battery systems of electric vehicles



Quelle: Audi AG

Initial situation:

The PEM Institute works together with industry and research partners on the further development of battery systems for electric vehicles.

Battery systems for electric vehicles contain different cell types, sizes and chemistries depending on the vehicle manufacturer and type. The cell used has far-reaching effects on the product structure and the system properties of the battery system. It is noteworthy that very different cells are used for similar vehicle types by different manufacturers. However, the system design can be greatly optimized by selecting the most suitable battery cell.

Your Task:

A wide range of questions arise around this topic. Emphasis can be set according to own abilities and interests after previous arrangement.

- Benchmarking of battery systems available on the market according to various criteria
- Literature research on mechanical, electrical and thermal cell properties
- Development of a tool for optimizing the packing density of battery cells in a given installation space
- Development of cell selection tools for given system requirements

The prerequisites:

- Interest in battery systems for electric vehicles
- Study of mechanical engineering or industrial engineering / Mechanical engineering
- Thorough, self-reliant and speedy working methods
- Previous knowledge suitable for the subject matter

What we offer:

- Competence building in the development of battery systems
- Structured and comprehensive support
- A motivating environment with a great infrastructure

Have we aroused your interest?

Please send us a your grades, your curriculum vitae and a short letter of motivation to the e-mail address below.

Your contact at the PEM: Hendrik Lößler, M.Sc. RWTH
h.loebberding@pem.rwth-aachen.de