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Besuchen Sie uns: www.pem.rwth-aachen.de

Master thesis / Bachelor thesis / Project work

Market analysis and concept development for pilot-production of battery cells.

Initial situation:
The mobility sector increasingly relies on battery technology. Especially the automotive and urban micro-mobility sector undergo significant transformations these days. Furthermore, medical and consumer devices are progressively battery powered.
As commercial products, all these applications must suffice technical and economic requirements. Additionally, the progression of new battery technologies constantly requires the design, building and testing of prototypes to evaluate the technical and economic performance.
Thereby, processability as well as material performance are the main requirements.
The interdependency of both parameters requires experimental validation at an early development stage to reduce development costs and time to market. Hence, optimizing battery pilot production has the potential to reduce development costs and time for the development of new battery technologies.

Your task:
Working on a two-ended approach:
First, identifying potentially emerging battery technologies for the mobility market (and potentially beyond).
Second, identifying cost-saving potential through automated pilot production during the battery development phase.
As an outcome, a concept development joints processing steps into a cohesive pilot line for battery manufacturing on a conceptual level.

We can adjust the exact thesis definition based your skills and interests. The theses centers in on the work done in the CELLFAB pilot line of PEM.

Requirements :
– High motivation.
– Willingness to learn
– Structured working
– Communicational skills
– English and/or German language

Your benefits:
– Comprehensive support
– Development of expert knowledge in the field battery manufacturing
– Contact to experts from research and industry
– Insights into one of the most promising research topics for future mobility

Have we caught your attention?

Together with your motivation, please send your current transcript of records and curriculum vitae to the email address listed below.

Your contact at PEM:

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