Bachelor / Master Thesis

Sustainability Oriented Planning of Manufacturing Processes

What's it about?

Manufacturing companies must combine profitability and environmental protection measures. Business growth must be made possible while at the same time reducing negative environmental impacts if the livelihood of future generations is to be preserved. Therefore, manufacturing companies must design their manufacturing processes taking into account the environmental impacts of manufacturing processes.

In a final thesis, a methodical procedure is to be developed that enables the required energy and material flows to be taken into account in the planning of manufacturing processes. This approach will enable companies to meet the increasing demands for sustainably manufactured products.

... what's my job?

- Development of a methodical procedure for the planning of manufacturing processes considering the expected energy and material inputs and outputs
- Development of a method to estimate the energy and material flows of manufacturing processes
- Validation of the methodical procedure using a case study

... what's my skillset?

- Motivation and commitment
- Interest in sustainable production
- Good or very good GPA

... what do you offer?

- Comprehensive support including regular coordination meetings
- Previous works, data basis and literature starter set
- Specifically defined tasks
- Self-reliant implementation
- Insights into a topic of high industrial relevance
- Workplace at the institute