Master/Bachelor/Mini Thesis

Crash Boxes under Impact Load

Crash structures of a vehicle have great importance in absorbing crash energy and saving passengers in car accidents. Furthermore, lightweight strategies should be considered in a design to reduce the vehicle weight. Thin-walled profiles are light structures, widely used as crash absorbers. In this study deep understanding of the crushing behavior of thin-walled crash boxes is desired. In order to achieve an efficient lightweight crash structure, influence of different material properties and different geometric parameters should be investigated and optimized.

Description:

- Basic research on crash structures
- Experimental tests on crash boxes
- Finite element simulation of the crash boxes
- Study on influence of different material and geometric parameters
- Documentation of the work carried out (Language: English)

Advertised on: 25.07.2019
Possible Start date: 15.08.2019 or Later

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