

Elastomer-based strain decoupling for performance enhancement of fiber composite components

Research Approach

- Performance enhancement of fiber composite components by optimizing stress distribution via elastomer-based strain decoupling
- Material and process development for innovative product concepts in the fields of structural components, chassis and powertrain technology



Objective

Enhancement of technology readiness of elastomer-fiber composite hybrid materials (ELFA) to Technology Readiness Level (TRL) 6 on two use cases

- Material selection and characterization
- Application-oriented testing of functional samples and prototype components
- Development of damage and lifetime simulation models
- Lifetime testing and property validation

