



# Multi Body Dynamic Analysis of the 3D Synchronizer Mechanism for a transmission system

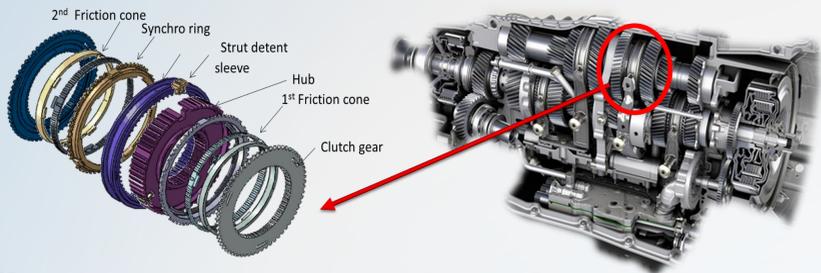
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## Introduction

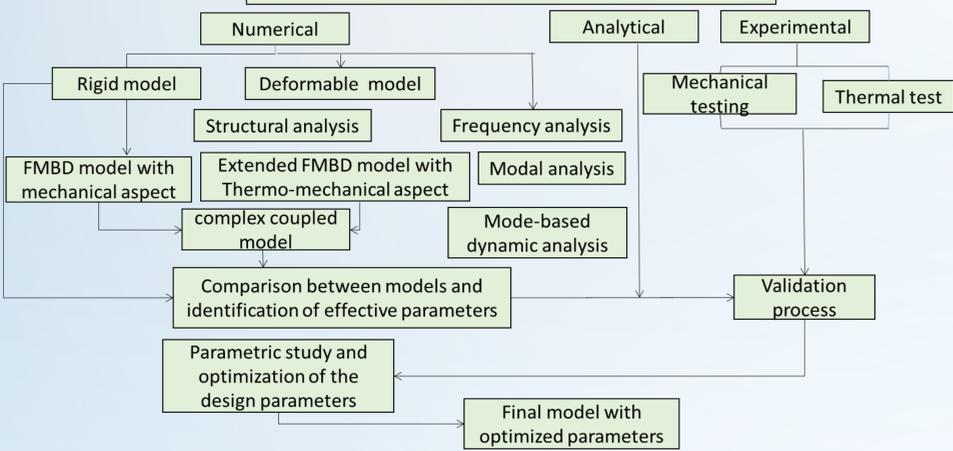


## Objectives

- To develop a holistic 3D model regarding element deformability.
- To investigate the significant parameters during synchronizing process.

## Methodology

### Multi Body Dynamic Analysis of the 3D Synchronizer Model

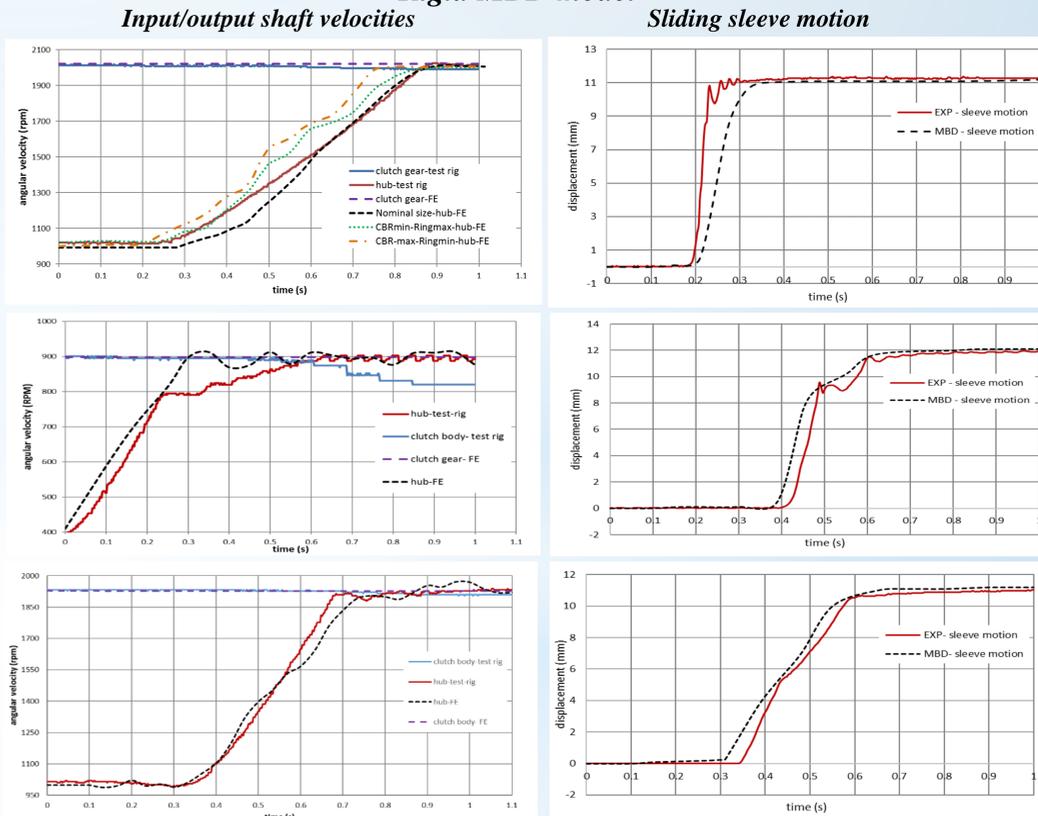


## Physical model

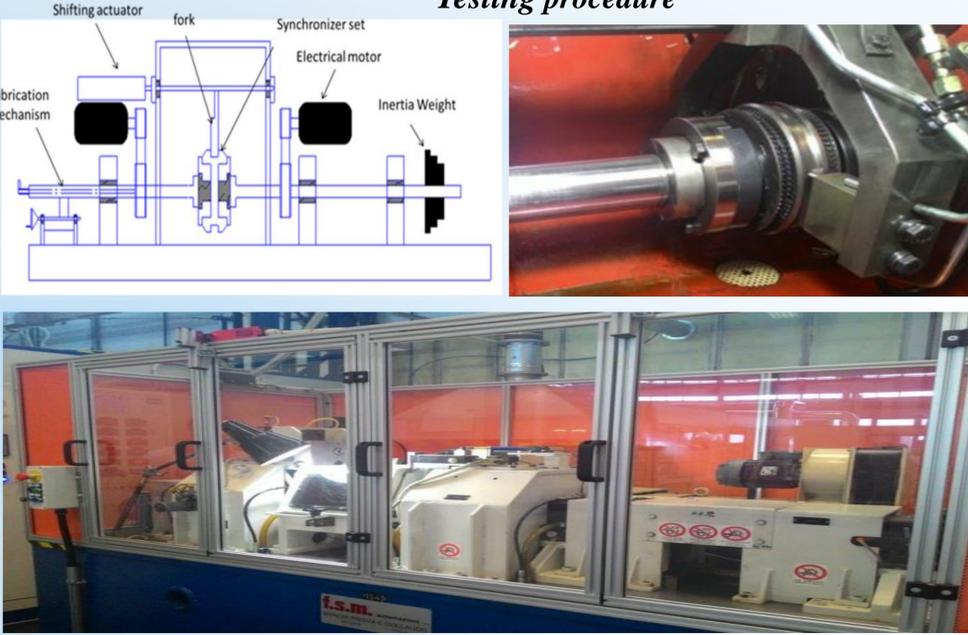


## Results

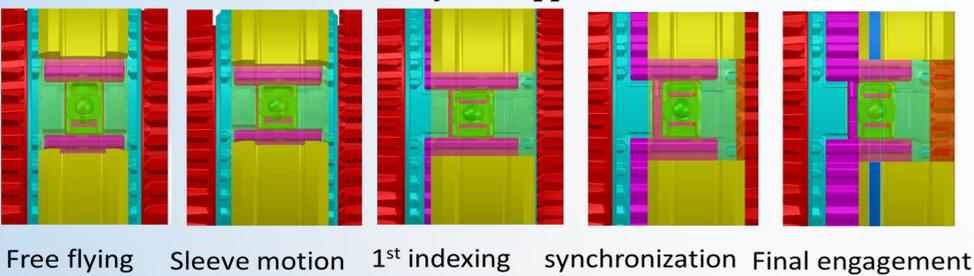
### Rigid MBD model



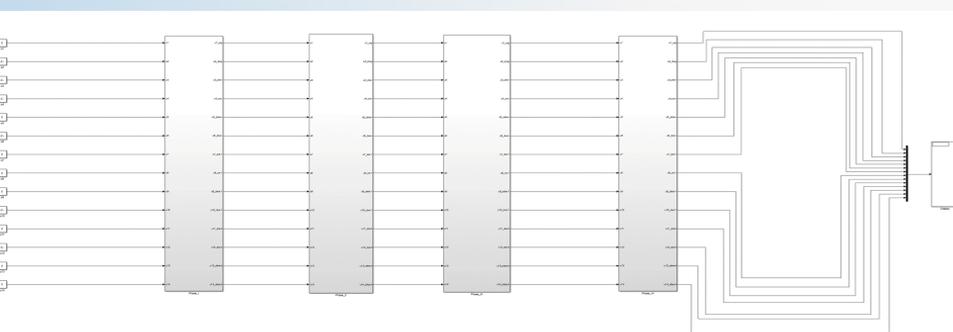
## Testing procedure



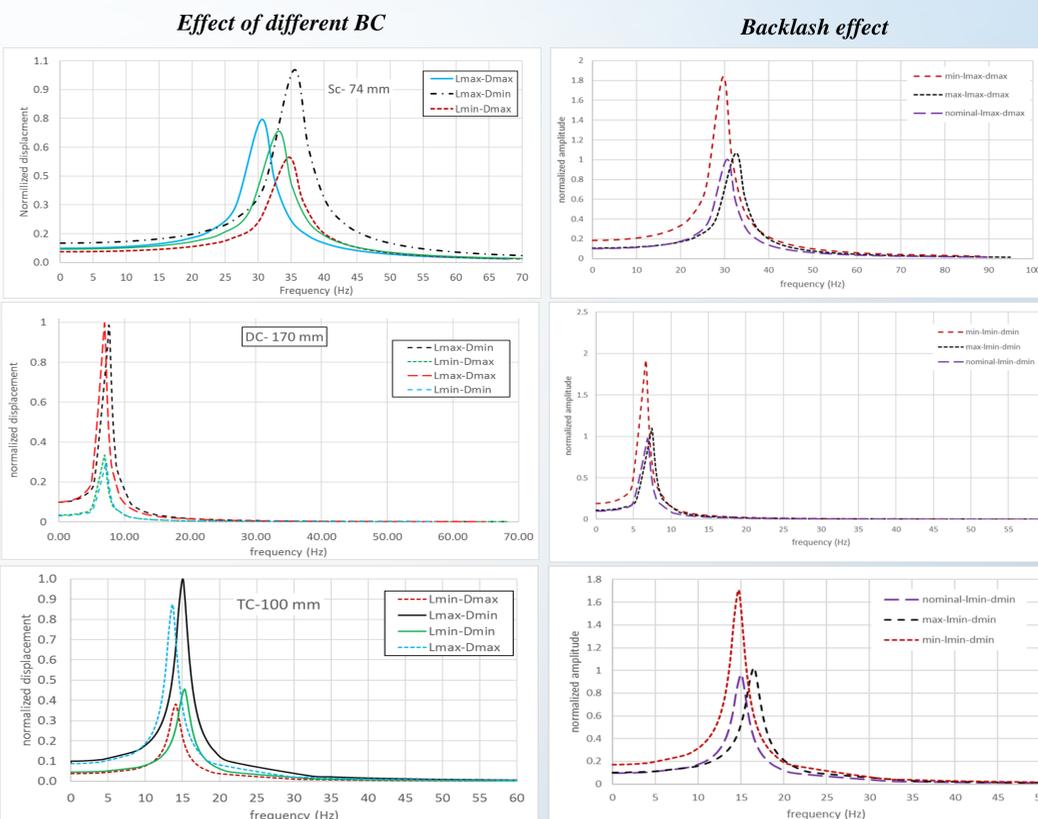
## Analytical approach



Governing equations for each phase



## Transient modal analysis



Outcomes: 1 conference paper+ 1 journal paper, ( 2 journal paper is ready to submit)  
The Flexible MBD model is the next step...