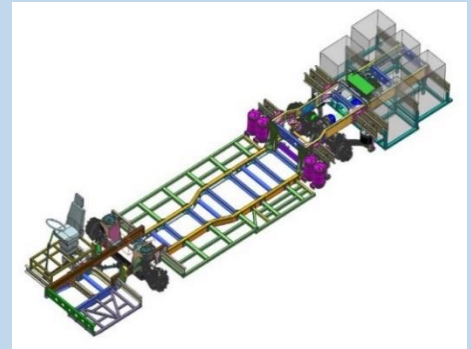


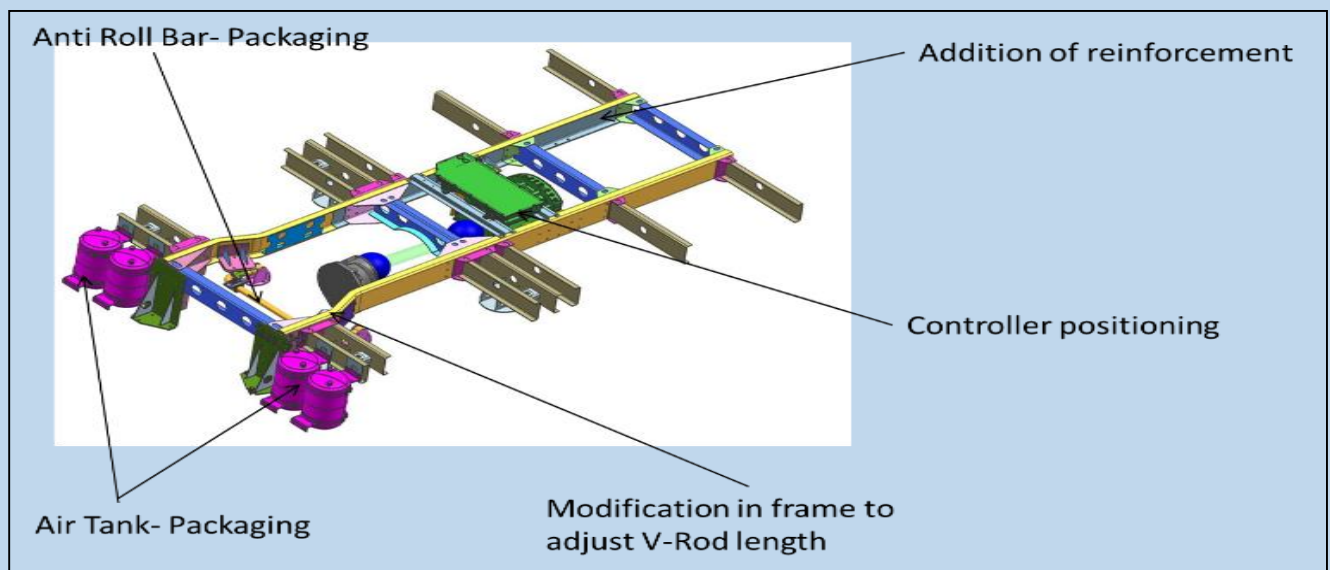
Electric Chassis Development

ARAI started development of Electric bus chassis from clean sheet. ARAI has taken this ambitious project in the area of product development.

For this project work such as Benchmarking of buses, Finalization of sub-systems & Selection of vendors Modular type Front, Middle and Rear (powertrain) module chassis design was done by ARAI.



Electric Bus Chassis Layout



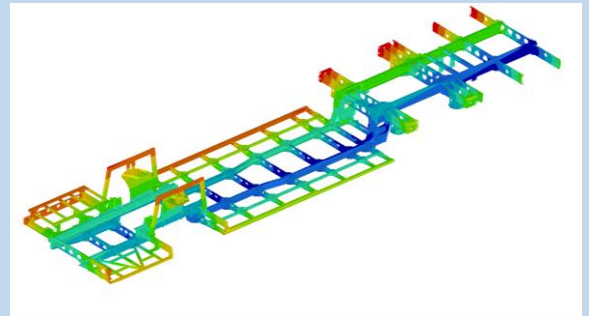
Rear module packaging

Design of Bus chassis for maximum strength and minimum weight can be done. Modular design of Chassis for compatibility of different Power pack viz. Electric/ Diesel/CNG also can be simulated. Seamless Vehicle Integration Capabilities considering all External & Internal packaging with chassis aggregates can be performed.

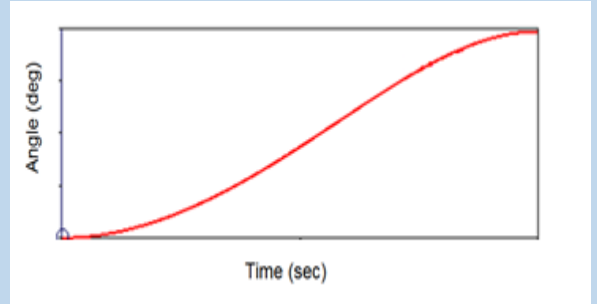


Chassis BM Calculation

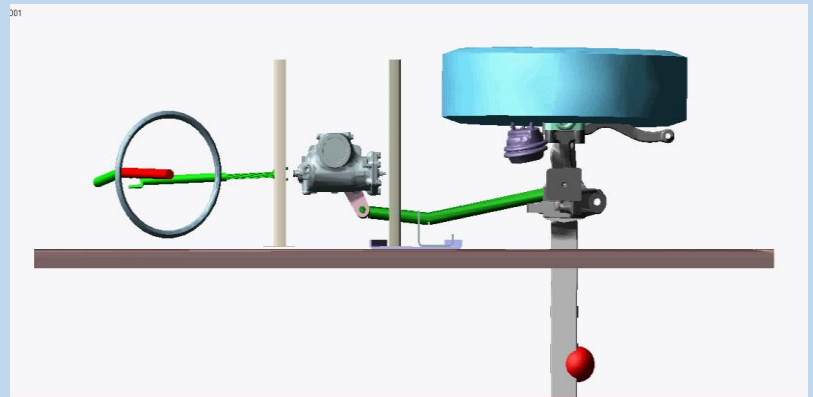
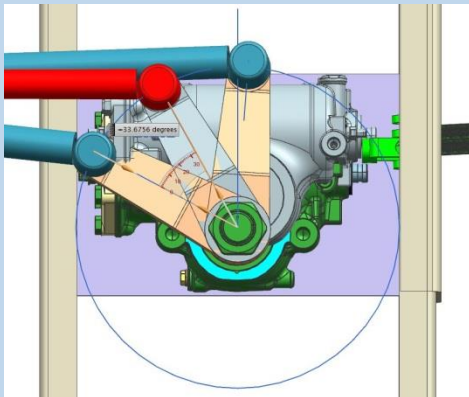
- Vehicle Performance Prediction viz. tractive effort calculation for Motor selection including wheel slip, Steering performance predictions
- Driveline calculations & selection
- Brake calculations considering Electric bus weight distribution
- Steering system kinematic analysis using MBD. Prediction of Bounce steer, Re-bounce steer, under steer, over steer etc.
- CAE analysis of Electrical Bus Chassis as per standard load cases
- Optimization of chassis with virtual validation



Strength Prediction



Bump Steer Prediction



Steering kinematic solution