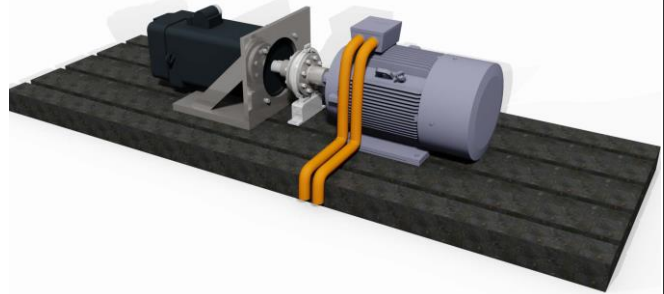


Test Bench for Highly Dynamic Torque Control

Technical data

- Regenerative PMSM servo motor with air cooling (IP64)
- Integrated rotary encoder
- Optional speed or torque control

Number of poles	6
Rated power	35 kW
Rated speed	3000 rpm
Maximum speed	3600 rpm
Rated torque	110 Nm
Maximum torque	316 Nm
Starting torque	140 Nm
Rated current	72 A
Rated Voltage	324 V



Equipment

- Rapid Control Prototyping system: dSPACE DS1103 PPC Controller Board
- Inverter 1: Simodrive with integrated controllers
- Inverter 2: Simodrive with open control interface and pulse pattern command via dSPACE

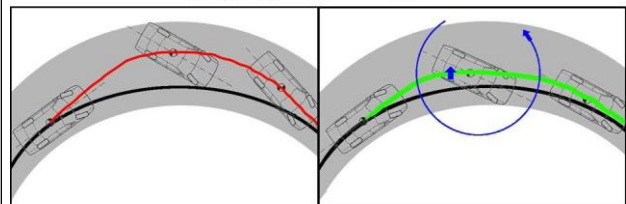
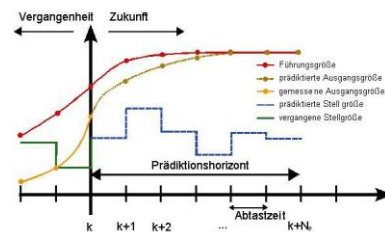


Measurement capabilities

Torque	HBM T10F – 500Nm (accuracy class 0.1)
Speed	Heidenheim ROD 420
Voltage, Current	Sidi-Interface-Platine

Current application/ opportunities

- Highly dynamic control of the drive motor
 - Increase of system dynamics
 - Increase of robustness
- Extension through a power measurement system
- Extension into an elastic drive train
- Extension into a drive system for the application of dynamic torque vectoring in electric vehicles



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