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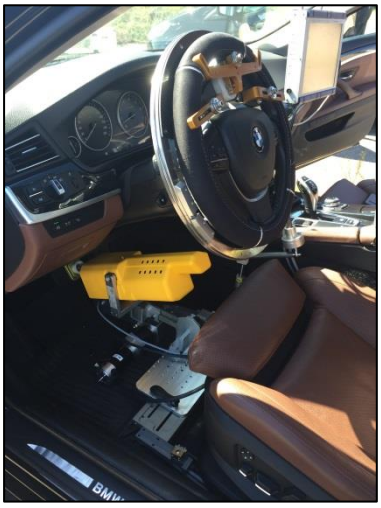
17_Mobile Data Acquisition



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Main Applications

- Open loop and closed loop test
- Static skid pad (v=const. / R=const.)
- Single and double lane change (ISO 3888)
- Step steer manoeuvre
- Weave Test
- Sinus sweep
- J-Turn
- Fishhook
- Behaviour of steering oscillation, response and self-aligning torque

Technical Specifications

Steering Robot

- CAN, LAN, RS232, Dig IN/OUT
- Max. steering velocity: 1200°/sec.
- Max. steering moment: 60 Nm @ 1200°/sec.

ADMA-G

- 3 closed-loop gyroscope (IFOG)
- Measuring angle yaw / roll / pitch: +- 180 / 60 / 60 °
- Angle accuracy:
- 3 servo G-Sensor
- Measuring range: +- 5 g
- GPS accuracy: 0,01 / 0,2 / 1,2 m (depending on GPS receiver)
- DGPS

DEWE2601

- 64 channels real-time (accelerations, forces, position, DMS, CAN, …)

CLS Steering Sensor

- Temperature range: -20°C to +80°C
- Steering moment: ±100 Nm
- Steering accuracy: ±1.475°
- Steering velocity: ±1.000°/s

Optional Sensors and Equipment

- G-Sensors (3-axes)
- Linear potentiometer and wire ropes (spring and damper travel)
- Temperatur sensors (Pt100)
- Vector VN1610 Bus-Interface (CAN, CAN FD, LIN)

Specimens

- Any/arbitrary vehicles
- Test bench

Features

Measuring time DEWE2601 @ battery: up to 6h

Location

Fahrzeugtechnisches Versuchszentrum Dresden
Chair of Automotive Engineering
August-Bebel-Straße 32
01219 Dresden
(https://goo.gl/maps/QwMGh6A6cjm)

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Measurement Parameters

- Yaw, roll and pitch angle / rates
- Position of vehicle
- Side slip angle
- Acceleration in x, y and z
- Velocity in x, y and z
- Change in wheel centre height (vertical position)
- Any/arbitrary wheel load and steering wheel angle course
- Application with measuring tierod possible
- Steering torque
- Steering wheel angle and velocity

Tools/Instruments

- Dewetron DEWE2601
- GeneSys ADMA-G
- Vector Bus Interface VN1610
- dSpace Micro Auto Box II
- CAEMAX CLS X100 sensor steering wheel

Components

- GPS antenna Novatel (ADMA-G)
- DGPS radio transmission (ADMA-G)
- Adapter MSI-BR-ACC (DEWE2601)
- Adapter MSI-BR-TH-K (DEWE2601)
- Adapter MSI-BR-V-200 (DEWE2601)
- Adapter MSI-BR-RTD (DEWE2601)
- Camera DEWE-CAM-GIGE-120 (DEWE2601)

Software for Controlling and Data Acquisition

- DEWESOFT-7-DAS Software
- DEWESOFT-OPT-CAN
- DEWESOFT-OPT-CAN-OUT
- PLUGIN-ADMA
- PLUGIN-POLYGON
- PLUGIN-CAM-GIGE

Reference Projects

Various tests for OEM

Contact

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