








## LEC MCheck SOFTWARE FOR MEASUREMENT QUALITY CHECKS AND FAULT DIAGNOSIS

LEC MCheck is an innovative software for the diagnosis of sensor faults on test beds with changing test carriers, such as engine test beds. LEC MCheck detects faulty measurements at an early stage and is able to identify faulty sensors, which not only improves the quality of the measured data but also increases the efficiency of the test bed.

### LEC MCheck Key Features

-  Automated system for measurement data plausibility check and error detection of measured values
-  Verification of the measurement data quality by means of different physical and statistical methods
-  Identification of the faulty sensor
-  Use of thermodynamic correlations of different measured values for plausibility check of a measuring point
-  Automatic generation of data-based models
-  Dynamic determination of confidence intervals and limit values for plausibility criteria
-  Determination of the monitoring quality

#### Fault detection

- Threshold monitored residuals
- Automatic threshold determination

#### Fault isolation

- Determination of fault probabilities based on geometric analysis

#### Graphical user interface

- Comprehensive configuration possibilities
- Detailed presentation of results

#### Symptom generation

- Modular concept for residual generation enables highly flexible application
- A formula tool enables user-defined plausibility rules
- Comprehensive library of physics based models for engine test beds
- Advanced methods for generating data-driven models

