

DyGeS – Dynamisches Gewichtserfassungssystem

The objective of the research activity is the registration of vehicle speed and weight in real time by means of the measurement of the dynamic characteristic of bridges. The loads are not registered by means of special weighing devices in the conventional sense but indirectly determined from the dynamic reaction of the structure. For the application of this method no construction measures are necessary, the traffic flow is not affected at any time. Bridges are particularly suited for the registration of traffic flows because they represent bottlenecks, for example the Danube bridges or viaducts (Europabrücke). This means that on bridges big parts of the traffic flow can be registered in the individual traffic mode with relatively low expenditures.

The defined research objectives are to be reached by the development of an appropriate dynamic permanent measurement system. For this purpose components already available at the market, e.g. sensors, storage devices etc., should be used as far as possible. The challenge lies in the development of the necessary software and therefore the selection of the project partners is of decisive significance.

In the scope of this project three fully functioning pilot facilities are to be installed into different bridge types. Tests at various bridge types with different dynamic characteristic are required for the development of the permanent monitoring facility.

Project Management:

VCE Holding GmbH

Partners:

- Aplica Mess- und Prüftechnik GmbH
- Ma29
- Alpenstrassen AG,
- OÖ-Landesregierung, Abteilung Autobahnen