

CONFERENCE ASPHALT PAVEMENTS 2023

Let's asphalt out of the crisis

28–29 November 2023, Czech Republic

AV '23

Material and pavement structures testing

General reporters **Petr Bureš** and **Jan David** will present all of 10 papers in their reports (authors: Jiří Fiedler, Zsolt Boros, Bjarne Schmidt, Karel Spies, Pavel Šperka, Jan Valentin, Ondřej Dašek, Tomáš Koudelka), which have several common features – 4 papers assess the effects and behaviour of selected asphalt binders, stiffening and other additives in the finished asphalt mixtures, 3 papers deal with methods designed to monitor pavement quality over time, and 3 papers describe new test methods to verify the stiffness and quality of the asphalt pavement.

Three authors will present their papers in person at the conference:

→ Impact of the vehicle speed on the pavement design

(Jiří Fiedler)

In TP 170 Road pavement design the effect of slow moving vehicles is taken into account by increasing the assumed number of design axles to double. The author discusses the appropriate choice of loading frequency and the resulting stiffness modulus of asphalt pavements. This allows the calculation by standard programs even for low vehicle speeds.

→ A new manner of verifying the resistance of the whole asphalt packet to permanent deformation (Zsolt Boros)

Contrary the standard rutting test, in which only a partial asphalt layer is stressed and assessed, the new method of verifying the whole asphalt layer consists of loading core samples placed in a triaxial apparatus with a cyclic axial load while maintaining constant pressure and temperature.

→ Data quality obtained by the iPAVe during comprehensive measurements of road infrastructure conditions

(Bjarne Schmidt)

The measurements carried out on the road network provide a sufficient database of data and information to subsequently identify those road sections that require routine maintenance, local repair or even total reconstruction. The presentation will show an example of the application of the measurement results at test sections in Slovenia.

Miloš Rosenbaum, moderator of the topic Material and pavement structures testing



Miloš Rosenbaum



Petr Bureš



Jan David



Jiří Fiedler



Zsolt Boros



Bjarne Schmidt

