RIS MF Hi-Pave GROUND PENETRATING RADAR

Geoprojekt is also an owner of a radar device for recording of road pavements - the Hi-Pave ground penetrating radar with a HORN 2.0 GHz frequency antenna, manufactured by IDS, which is upgraded by a 400/900 mHz antenna system.

Figure 1: Metal support and HORN antenna

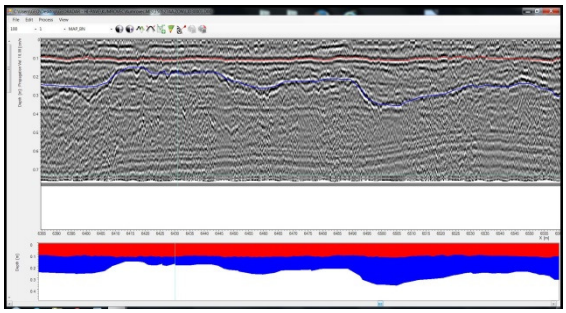
Figure 2: Employees of Geoprojekt d.d. during field work with the Hi-Pave system

Continuous radar recording of road pavements as a non-invasive method is an excellent addition to core drilling which is destructive to the road surface, as it enables the optimising of the number and position of core drilling points.

The recording is done continuously, by a vehicle moving at the speed of up to 130 km/h, and requires no special regulation or closing of the traffic.

Figure 3: Vehicle-mounted double-antenna Hi-Pave system

Data processing and post-processing is carried out subsequently, by using the specialized GRED 3D computer software package.



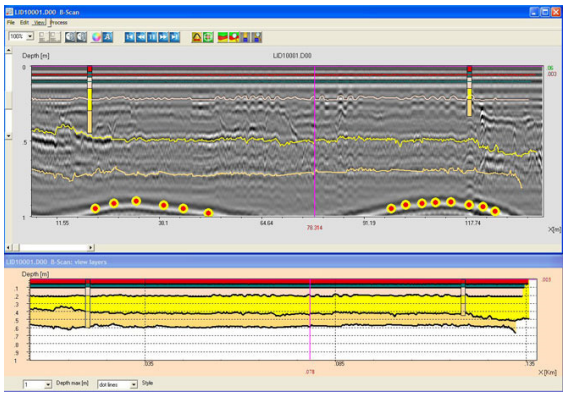


Figure 4: Post-processing in GRED 3D software Application:

- continuous display and thickness determination of road pavement layers,
- detection of road pavement reinforcement or repair locations,
- detection of the position of reinforcing steel in concrete pavements, of construction joints and zones of different material compaction rates,
- detection of wet areas and various road pavement anomalies,
- quality control of newly constructed road pavement layers.

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