

Mobile road pavement control facility

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Specialists of the State Corporation "Rosatom" developed the conception of creating a device for road pavement control, called "Condor", a basic element, which is an X-ray densitometer that has no analogues in the world. The "Condor" additionally equipped with a variety of georadar antenna units, motion sensor, GPS. On the basis of this conception prototypes of road pavement control facility was developed. The principle of a road pavement control facility "Condor" is based on the detection of backscattered X-rays to determine the physical parameters of the upper layer of the road surface and the reflected radar waves from the medium with different dielectric constant to determine the thickness of the layers of the roadway. On densitometer obtained the patent №2529648 «Method and apparatus for density radiation measurement of solids» from 05.08.2014. Multi-channel road pavement control facility designed for non-destructive dynamic control. Fields of its application: 1. Density measurements of the pavement upper layer. 2. Compaction factor measurements of the pavement upper layer. 3. Control of the pavement layers thickness. 4. Identify areas of soil moisture and decompression, voids, foreign inclusions and gullies. Main technical characteristics of the facility: 1. The range of controlled density from 2000 to 3000 kg/m³. 2. The basic measurement error is not more than 50 kg/m³. 3. The maximum probing depth of 3.5 m. 4. Resolution on the depth of 0.01- 0.05 m. 5. Operating range from -15 to +40 ° C.

Presentation type

Section talk (10+5 min)

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