

## COMBINED GEOPHYSICAL DEVICE BASED ON DIGITAL LASER INTERFEROMETRY



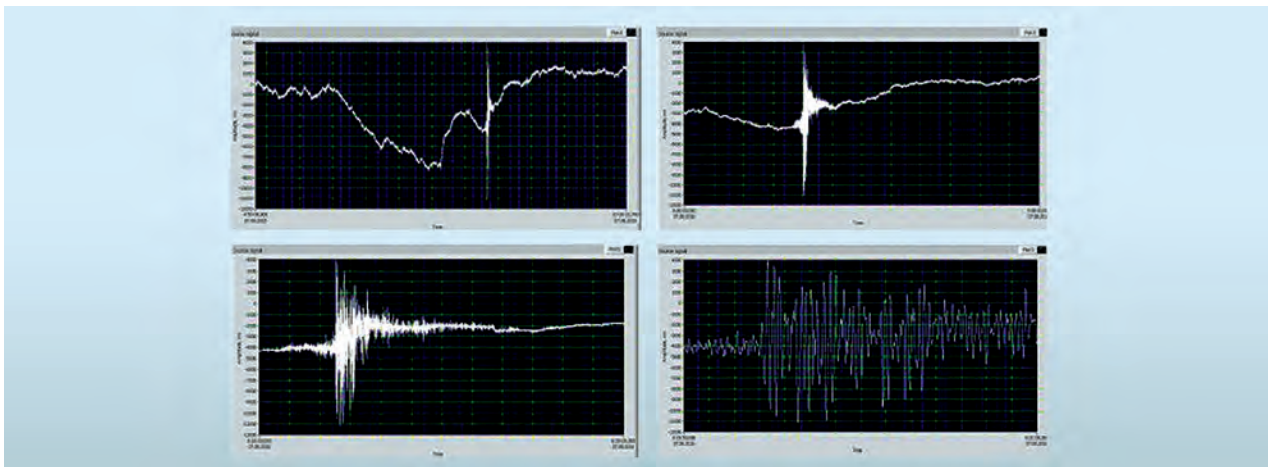
The vertical seismometer with digital laser interferometer

### Areas of Application

The device is to be used for recording the Earth surface vibrations of natural and manmade origin, inclinations of structures, mining quarries, bridges, and dams, as well as changes in gravity

### Specification

3D measurements and record of the surface vibrations with a resolution of, at least, 1 nanometer, within the frequency range from 0.01 to 50 Hz and the slopes with horizontal plane with a resolution of, at least, 0.0001 angular seconds



Earthquake in Mariupol, August 7, 2016 (GMT). Registered in Kyiv Oblast. The vertical axis in nanometers. The earthquake was preceded by changes in gravity

### Advantages

The device has no counterparts in the world. It enables measuring and recording the very shifts instead of their rate or acceleration, this makes it possible to do measurements at very low frequencies starting with 0 Hz; also, the device enables using the vertical seismometer as relative gravimeter and the horizontal one as supersensitive inclinometer

### Stage of Development.

#### Suggestions for Commercialization

IRL3, TRL4

Manufactured upon request. Seeking partners for manufacturing and getting international IPR protection

### IPR Protection

IPR3

### Contact Information

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