

NACIONĀLAIS  
ATTĪSTĪBAS  
PLĀNS 2020



EIROPAS SAVIENĪBA

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I E G U L D Ī J U M S T A V Ā N Ā K O T N Ē

## NEW GENERATION WAVEFRONT SENSORS BASED ON THE METHOD OF CODED DIFFRACTION PATTERNS

**Project number: KC-PI-2017/105**

**Project scientific leader: Dr. Phys. Sergejs Fomins.**

**30.09.2019.**

**Project implementation – 01.07.2019. – 30.09.2019.**

The project continues the development of the prototype and variations of implemented blocks. The algorithm control unit and performance optimization operations as well as optimization of optical mechanical components.

Work has been carried out on transferring the phase recovery algorithm to the high-speed platform and linking it to real measurements. Specific mathematical solutions has been identified, and optimization work continues.

Work has been done on the improvement of mechanical details and the optimal description of optical elements, as well as their proper synchronization with the mathematical apparatus.

Optical measurements with real objects and characteristic errors has been identified, improvements in optical circuits and algorithm performance has been made. Work continues on the technical implementation of the portable prototype.

Team has identified the parameters for the sensory part to fulfill high performance and complemented the procurement part.

Work is ongoing on the technical descriptions and drawings of the technology, and efforts has been made to strengthen intellectual property rights in cooperation with patent offices.