**BIP MODERN MEASUREMENT METHODS AND 3D**

**SCHEDULE**

This program focuses on 3D measurement. Students will learn and deepen the orientation in the field of measurement using touch probe and non-contact methods, for example, checking dimensions, parallelism and concentricity on a Crysta device, methods used for 3D reconstruction such as stereophotogrammetry, copying a surface with a laser beam, tomography, chromatic aberration, reconstructing an object on a Microprof FRT 100. The program provides monitoring and support for individual development.

| **Form** | **Dates** | **Topics** |
|---|---|---|
| Virtual meeting | May 3*, 2024 45 minutes + 90 minutes | Introduction of participants. Thematic introduction and consolidation of orientation in the area defined by the topics: touch probe and three-coordinate measuring machines. Technical inspection in industrial practice. Non-touch measurement and reconstruction of objects. Stereophotogrammetry. Crysta machine basics and control software.<br>*The date will be confirmed/modified with the participants. |
| Physical/ on-site part | May 13-17, 2024 | Laser profile measurement, profile measurement using chromatic aberration (using a pair of beams with different wavelengths, red and green beam).<br>Basics of working on the Crysta machine, control software.<br>Working with Crysta 3D measuring machine, calibration sphere.<br>Checking dimensions, parallelism and concentricity on the Crysta gauge, implementation of drawing documentation.<br>Processing of measurement results and quality control.<br>Working on the Microprof 100 machine and its control software.<br>Reconstruction of 3D object on Microprof 100 machine, scanning of Coin. |
| Virtual meeting | May 22**, 2024 45 minutes | Final reflection. BIP conclusion.<br>**The date will be confirmed/modified with the participants during the physical part of the program. |