Leibniz-Institut
für Polymerforschung
Dresden

Opportunity for Bachelor/Master/Diploma Thesis

Thesis and/or SHK Position

Development of Measuring Technique – Confocal Sensor

Background The material distribution in PET water bottles is one of the key indicators for the performance of the packaging. The thickness distribution evolves from the production process. It can be measured using a number of different physical principals.

Task In this work, a technique should be developed, that measures the thickness distribution along the vertical and circumflexion direction of a PET bottle. A development of a rig and control sequence is expected.

- Development of the rig
- Measurement sequence (controller operation)
- Data evaluation

Within the project you get the opportunity to **strengthen your skills** in

- Mechanical design using CAD
- Microelectronic application design
- Basic microcontroller programming in C++
- Data processing in Python
- Communication of Engineering results in German, English or French (optional) language

For further information, please get in contact with

Julius Petrausch
Email: petrausch@ipfdd.de Tel.: 0351/4658 1966

Leibniz-Institut für Polymerforschung Dresden e. V., Hohe Str. 6, 01069 Dresden
Department of Materials Engineering

The scope of the topic can be adapted to the respective time budget (Thesis/Internship/SHK).