Interdisziplinäres Praktikum (IDP)

Industry 4.0 in the stamping and bending technology

Motivation:
Increasing electrification in the automotive industry and in many other industries has created an increased demand for electronic accessories in recent years. In particular, in the manufacturing of connectors are in production very large quantities to achieve and thus large production rates required. In order to be able to ensure a consistent component quality at high stroke rates, disturbances on the process must be identified and compensated.

Task description:
In the context of this work, the disturbances in the stamping and bending technique are to be investigated by a literature research and together with our project partners, like e.g. the company Bihler. Using the example of a tool in a Bihler machine (see figure below on the left), a process control is to be developed in order to focus on process-critical parameters, such as tool wear and thus ensure the accuracy and quality of the components over long stroke rates. Exemplary components of the stamping and bending technology are chain links, see illustration below on the right.

Requirements:
An important part of technical studies is the correct and scientifically founded execution of experiments. At utg we attach great importance to the teaching of these methods and we would be very pleased to be able to inspire you at our chair for this topic. Otherwise, there is only one requirement: interest in production technology.