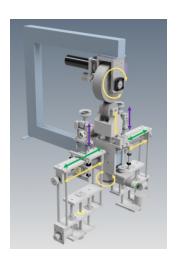
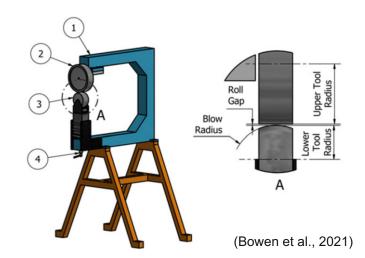




# Tool path design for English Wheel

The English Wheel is a craft sheet metal forming process that relies on local stretching of the material to generate double curvature. It is a dieless, net-shape process, without the need for clamping and which produces a good surface finish. Despite its persistent use in workshops, this process has not been studied substantially and there has been little effort to automate it or even mechanise it. This project will exploit our understanding of the underlying deformation mechanics, along with data-based methods, to develop a toolpath design method.





This thesis will be supervised as part of a collaboration between IUL and the Department of Mechanical Engineering at University of Bath. Parts of the thesis would be conducted at IUL in Germany and at the Department of Mechanical Engineering in UK. (Details on potential funding for the stay abroad are yet to be discussed)

#### Requirements

- Interest in manufacturing process
- Analysing of forming mechanisms
- Interest in analysis of forming processes
- Ability to work independently





## Announcement: July 2022

TU Dortmund Fakultät Maschinenbau Institut für Umformtechnik und Leichtbau Prof. Dr.-Ing. Matthias Kleiner Prof. Dr.-Ing. A. Erman Tekkaya

D-44227 Dortmund Baroper Straße 303 Campus Süd / Einfahrt 42 www.iul.eu

# Supervisor at the University of Bath:

Prof. Dr. Evripides G. Loukaides
Department of Mechanical Engineering
University of Bath
el484@bath.ac.uk

### Supervisor at IUL:

Philipp Lennemann M. Sc.

MB 3, Raum 4.026 philipp.lennemann@iul.tu-dortmund.de Tel.: (0231) 755 - 8434