

# 地域連携スマート金型技術研究センター(G-CADET) 金型国際セミナー

**2/5(水)**  
**10:00-11:00**  
(受付開始9:30~)

岐阜大学OKBプラザ 2F  
OKB SCLAMB  
ミニストップすぐ南  
(Tokai Open Innovation Complex)  
☆使用言語:英語(通訳なし)☆

塑性加工分野の中核研究拠点の一つである、ドルトムント工科大学成形技術研究所IULの新ディレクターYannis P. Korkolis教授から、「IULでの金属加工の研究」についてご講演いただきます。

## 【講演者】

Yannis P. Korkolis

Professor of Mechanical Engineering and Institute Director

## 【タイトル】

An overview of metal forming research  
at the Institute of Forming Technologies and  
Lightweight Components (IUL)  
at the Technical University of Dortmund, Germany

【申込】以下のフォームよりお申し込みください。  
<https://forms.gle/dDc2g9cByF13KidZ6>  
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【定員】30名(申込み先着順)

【参加費】無料

【問い合わせ】岐阜大 箱山智之

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## 【概要】

Metal forming research at TU Dortmund dates back to the founding of the Faculty of Mechanical Engineering in 1972 and has been an integral part of it ever since. The Institute has a staff of about 75-80 people, including 3 Professors (2 Emeritus), 3 Chief Engineers, 25 PhD researchers, 35 BS and MS students and 12 technical and administrative staff. Its research activities are categorized in three areas: bulk metal forming; sheet, tube and profile forming; and non-conventional processes. In the first area, hot extrusion of light metals is a specialty of the Institute, as is cold forging. Additional projects involve swaging, wire drawing, roll-bonding, etc. In the second area, the main activities are in the area of high-temperature processing and press-hardening. For example, tailored press-hardening in a progressive die, combination of tube hydroforming and press-hardening, bending of tubes and profiles from high-strength materials, etc. In the third area one finds processes such as high-rate forming, incremental forming, spinning, joining by plastic deformation, and additive manufacturing applications in die design and the production of hybrid structures. An overarching area of research is on the effect of forming-induced damage in product performance. It is shown that different processing routes lead to successfully-formed components with very different properties, e.g., fatigue life.

Integrating processing and performance will be a paradigm shift in component and product design. The research activities above are supplemented by extensive facilities for material characterization (mechanical and metallographic), including custom and novel techniques, such as in-plane torsion of thin sheets. The purpose of this talk is to highlight the multiple ways that Gifu University/G-CADET and IUL can engage on projects of mutual interest and complimentary expertise.