

IWOTE'05

Welcome to Bremen

The Free Hanseatic City of Bremen is an international seaport and trading center close to the North Sea and the leading location of industry in the northwest of Germany. Here, a multifaceted science landscape has developed, which is distinguished by the close co-operation between universities and research institutes. Bremen will be the "City of Science" in 2005.

The Free Hanseatic City of Bremen is the smallest independent state of the Federal Republic of Germany, consisting of the cities of Bremen and Bremerhaven. The total population of Bremen is 550,000, making it the tenth largest city in Germany. Bremen's remarkable historic city centre is a world cultural heritage site.



www.bremen-tourism.de

Conference Office

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Venue

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www.hotel-munte.de

Travel

Bremen and the conference venue are easily accessible by air, rail and road.

Airport Bremen: only 11 km from the venue, linking Bremen to major hubs in Europe

Train Station: only 4 km from the venue, linking Bremen to all major cities in Germany

Access by car Bremen is conveniently served by Motorways A1 and A27, approx. one hour from the cities of Hamburg and Hanover

Announcement and
Call for Papers

1st International Workshop
on Thermal Forming

April 13-14, 2005
Bremen, Germany

Introduction

Thermal forming is a manufacturing technique that has for a long time been applied in various industries including e.g. shipbuilding, where a significant fraction of the labor cost goes back to the flame straightening of welded structures. However, expertise in industrially applied conventional thermal forming techniques is often based on empiricism and depends largely on the skills and experience of the workers.

Today, thermal forming is evolving into a highly sophisticated manufacturing technology. Well-defined heat sources like laser beams, plasma jets and induction allow for a precise and reproducible heating of a highly localized area and enable process automation. Thermal forming is e.g. applied in high-volume production of automotive parts and microelectronic devices.

Current research is concentrating on the mechanisms of thermal forming, on the prediction of the strains and on the heating strategies and path planning in order to obtain a given shape. Potentials for applications arise in the fields of straightening and adjustment for both macro and micro components. Moreover, for line bending and spatial forming of metallic products from sheet and profiles thermal forming can avoid disadvantages of mechanical forming processes like the spring-back effect and overcome accessibility limits, thus enabling to form shapes which are unattainable by other methods.

For the first time, an International Thermal Forming Workshop will be held in Bremen. International thermal forming experts will highlight the progress in understanding thermal strain phenomena and discuss potentials and open questions with respect to industrial applications in forming and alignment.

Objectives

The workshop is intended to promote the exchange of experience at international level and foster the dialogue between science and industry.

Who should attend

Scientists, researchers and industrial technology managers are invited to discuss latest results from basic and applied research in the field of thermal forming, and to stimulate the diffusion of advanced thermal forming techniques into industrial application.

General Chair

Prof. Frank Vollertsen, Germany

International Advisory Committee

Prof. Joost Duflou, Belgium

Prof. Manfred Geiger, Germany

Prof. Volodymyr S. Kovalenko, Ukraine

Prof. Alan T. Male, USA

Dr. Richard Martukanitz, USA

Dr. Zygmunt Mucha, Poland

Prof. Yoshiharu Namba, Japan

Prof. Kozo Osakada, Japan

Dr. Yoshiyuki Uno, Japan

Prof. Kenneth Watkins, UK

Prof. Y. Lawrence Yao, USA

Submission of Papers

Authors wishing to submit a paper are invited to send a short abstract to the Conference Office, preferably by e-mail, including title, presenting author and list of co-authors with affiliations and addresses, telephone and fax numbers and e-mail addresses.

Topics include but are not limited to: experimental and theoretical research on mechanisms of thermal forming with various heat sources, process modelling and simulation, research directed to specific applications, path planning, and thermal forming in commercial production processes.

All papers will be published in the proceedings of the workshop. Conference language will be English.

Schedule

September 30, 2004

Submission of abstract

October 15, 2004

Notification of acceptance

December 15, 2004

Submission of full manuscript

Sponsors



Deutscher Verband für
Schweißen und verwandte
Verfahren e. V.



International Institution
for Production
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Reply

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For more information, please return this form.

- I plan to present a paper
- I plan to attend the workshop
- I would like to receive further information

Name _____

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