



**The 7th INTERNATIONAL CONFERENCE ON POWER BEAM
PROCESSING TECHNOLOGIES (ICPBPT2018)**

October 17th-19st, 2018, Nanjing, China

Organized by

The Science and Technology on Power Beam Processes Laboratory

The National Research and Application Center for Non-Conventional Welding Technologies

Aeronautical Key Laboratory for Additive Manufacturing Technologies

**The State Laboratory of Power Beam Additive Manufacturing Technologies and
Equipment of Beijing**

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The Welding Institute, UK
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**Chinese Mechanical Engineering
Society**
<http://www.cmes.org>



**Manufacturing Engineering Society of the
CSAA**
<http://www.csaa.org.cn/index.html>



Chinese Welding Society
<http://www.china-weldnet.com/>



Laser Processing Committee of the COS
<http://www.chinalaser.org/>



Chinese Additive Manufacturing Society
<http://www.cmes.org>



Non-Traditional Machining of China
<http://www.china-ntm.com>

First Announcement and Call for Papers

Power beam processing technologies have drawn considerable attentions for their unique technical advantages. After years of development, these technologies have been used in a variety of processes such as welding, material removal, surface engineering, and additive manufacturing, which play significant roles in the fields of aerospace, shipbuilding, defense/security, transportation and healthcare industries. Realizing the potential of such technologies, the Science and Technology on Power Beam Processes Laboratory was founded in 1995 by AVICMTI, and initiated the 1st International Conference on Power Beam Processing Technologies (ICPBPT) in 2004 to facilitate the development and applications of power beam processing technologies.

This year, the 7th International Conference on Power Beam Processing Technologies (ICPBPT2018) will be held in **Nanjing, China** on **17th – 19st October 2018**, aiming to further promote innovation, application and development of power beam processing technologies. It will be hosted by the Science and Technology on Power Beam Processes Laboratory. The meeting will focus on the latest progress and achievements in the fields. Worldwide distinguished experts will be invited to deliver speech at the plenary session. Accepted abstracts will be published in the book of conference proceedings. High quality papers will be recommended to publish in peer-reviewed journals.

Topics

A wide range of topics will be included in the conference. The main topics are:

(1) Power beam welding/joining technologies:

- laser welding/joining technology
- electron beam welding/joining technology
- plasma welding/joining technology
- power beam hybrid welding/joining technology

(2) Power beam surface engineering technologies:

- power beam micro-nanofabrication
- electron beam physical vapor deposition
- atmospheric plasma spraying
- hypersonic flame spraying
- low pressure/ vacuum plasma spraying
- cold spray

- ion implantation and deposition
- hybrid power beam surface processing
- power beam surface shock processing
- surface cladding/alloying

(3) Power beam additive fabrication technologies:

- selective laser melting
- coaxial powder feeding laser direct melting deposition forming technology
- electron beam melting
- electron beam free form fabrication
- Iron beam and power arc

(4) Power beam removal technologies:

- power beam cutting and drilling
- power beam micro-nanofabrication

(5) Power beam processing measurement and control technologies:

- power beam detection and control technology
- parameters detection and real time monitoring system
- process monitoring technology

Requirements for Abstracts

Abstracts should be written in English to state the main points of the paper within 300 words. For domestic participants, abstracts written in Chinese no longer than 400 words are also required. Longer abstracts will not be reviewed and will be automatically rejected. The accepted abstracts will be published as submitted without copyediting, so please pay attention to the grammar and spelling. The specifications, as well as examples, for the abstract are shown in the **supplementary documents**. Please prepare your abstract using the examples as templates. The abstracts shall be emailed to pbpt_bamtri@163.com.

Deadlines

Deadline for abstracts: **May 31, 2018**

Deadline for full papers: **August 31, 2018**

Conference Language

English (Domestic participants could give oral presentations in Chinese, but the slides should be presented in both Chinese and English)

Conference General Chairs

Prof. ZHIQIANG LI, President of AVIC Manufacturing Technology Institute (AVICMTI), Chief of the Science and Technology on Power Beam Processes Laboratory at AVICMTI

Dr. CHRISTOPH WIESNER, President of TWI Ltd., UK

Conference Co-Chairs

Prof. SHUILI GONG, Deputy Chief Engineer of AVIC Manufacturing Technology Institute, Deputy Director of the Science and Technology on Power Beam Processes Laboratory at AVICMTI

Prof. Dr. LIN LI, The University of Manchester, Royal Academy of Engineering, UK

Prof. Dr. PAUL ANDREW HILTON, Technology Manager of TWI Ltd., UK

Prof. YIXIONG WU, Dean of the School of Materials science & Engineering, Shanghai Jiao Tong University; Vice-President of the Chinese Welding Society

Prof. Dr. HERBERT STAUFER, Chairman of C-IV of IIW, FORCE Technology

Prof. BOYOUNG LEE, Korea Aerospace University

Prof. YINAN LAI, National Natural Science Foundation of China

Honorary Conference Chairman

Prof. Dr. QIAO GUAN, Member of the Chinese Academy of Engineering, AVIC Manufacturing Technology Institute

Honorary Conference Co-Chairs

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Prof. SHANGYANG LIN, Member of the Chinese Academy of Engineering, Harbin Welding Institute

Prof. ZHENGCHENG DUAN, Member of the Chinese Academy of Engineering, Huazhong University of Science & Technology

Prof. TIANHU SONG, Chief Supervisor of the Chinese Mechanical Engineering Society

Prof. YANMIN ZHANG, Vice-President/Secretary-General of the Chinese Mechanical Engineering Society

Prof. Dr. QIANG CHEN, President of the Chinese Welding Society, Tsinghua University

Prof. YOULIANG WANG, Director of the Laser Processing Committee, Chinese Optical Society

Members of the Consulting Commission

Chairman: Prof. Di ZHU, Member of the Chinese Academy of Science

Co-Chairman:

Prof. DONGMING GUO, Member of the Chinese Academy of Engineering

Prof. HUAMING WANG, Member of the Chinese Academy of Engineering

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