

**The 3rd International Seminar on
Advances in Resistance Welding
16-17 November 2004, Berlin, Germany**

ANNOUNCEMENT

Organisers:

SWANTEC Software and Engineering ApS, Denmark
BAM – Federal Institute for Materials Research and Testing, Germany

Background:

There have been many challenges to resistance welding due to applications of new materials such as high strength steels, aluminium and complex joints. At the same time, a lot of new developments are going hand-in-hand to enhance the advantages of resistance welding to remain as one of the most productive and competitive joining technologies in automotive, aerospace, electrical, electronics, radiators and other metal processing industries. There are great demands from industry to follow up the recent developments of materials, welding equipment and process control techniques, new methods for process optimisations and innovative applications for improving weld qualities, thereby to update information of the technology and to advance applications of resistance welding. In order to meet the demands of industry, a series of international seminars on Advances in Resistance Welding have been initiated by SWANTEC and now organised as a regular activity of the Innovative Resistance Welding Network – INNOWELD.NET. The first seminar was organised by SWANTEC and JOM Institute on 18-20 October 2000 in Copenhagen, Denmark and the second seminar was organised by SWANTEC and ISF-RWTH on 6-7 November 2002 in Aachen, Germany. All lectures at the seminars have been specially invited from leading institutes and companies in the field of resistance welding with comprehensive coverage of materials, equipment, innovations and the latest industrial applications. The seminars have been very well responded from industry with more than 80% participants from companies.

Following the success of the first two seminars, the third seminar is now organised by SWANTEC and BAM on 16-17 November 2004 in Berlin, Germany. Ten invited lectures will be given by well-known experts in the field of resistance welding from leading institutes and companies covering the recent developments and new applications of resistance welding with special emphasis on challenges and innovative applications of new materials *e.g.* high strength steels, aluminium etc.

Objectives:

- To bring up the latest developments on industrial applications of resistance welding.
- To provide an opportunity for industrialists and specialists in resistance welding to share their experiences and expertise at an international level.

Topics:

- Challenges to resistance welding for applications of new materials and complex joints.
- Advances in resistance welding machines, control technologies, and electrodes.
- Innovations and optimisations of resistance welding with support of computer technology.

Proceedings:

Proceedings of all papers will be written in English and distributed to participants at the seminar. Slides for presentations shall be written in English but may be presented in English or German.

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PROGRAMME

Agenda on Tuesday, 16 November 2004

- 12.30 – 14.30 **Workshop on SORPAS®: Applications of process simulations for resistance welding**
14.30 – 15.00 Coffee break
15.00 – 17.00 User Group Meeting:
 15.00 – 15.30 **Contact resistance sensibilities in automotive spot-welding steel configurations**
 Dr. Laurent Tollier, PSA Peugeot Citroën, France
 15.30 – 16.00 **Optimization of weld nut projections**
 Mr. Leif Winberg, Volvo Car Components Corp., Sweden
 16.00 – 16.30 **µ-Projection welding of Inconel assembly, experience with SORPAS®**
 Mr. Patrick Van Rymenant, De Nayer Instituut, Belgium
 16.30 – 17.00 Open discussions

18.00-20.00 Reception and Registration

Seminar on Wednesday, 17 November 2004

- 09.00 – 09.15 **Welcome and introduction of BAM**
09.15 – 10.00 **Can simulation of the welding process help enhance the State of the Art in resistance welding?**
 Dr. Sumanjit Singh, Audi AG (retired), Germany
10.00 – 10.45 **The resistance spot weldability of high strength and ultra high strength steels**
 Mr. Steve Westgate, TWI Ltd., The Welding Institute, UK

10.45 – 11.00 **Coffee break**

11.00 – 11.30 **Resistance spot welding of high strength multi-phase steels**
 Dr. Gert Weber, BAM, Federal Institute for Materials Research and Testing, Germany
11.30 – 12.00 **Process adjustments to improve fracture behaviour in resistance spot welds in EHSS and UHSS**
 Dr. Lars-Erik Svensson, Volvo Truck Corp., Sweden
12.00 – 12.30 **Simple but effective - a mechanical method to improve fatigue behaviour of spot welded high strength steel**
 Dr. Ping Xu, BAM, Federal Institute for Materials Research and Testing, Germany

12.30 – 13.30 **Lunch**

13.30 – 14.00 **New solutions to improve quality in aluminium welding**
 Dr. Patrick Le Gall, ARO S.A., France
14.00 – 14.30 **Spot welding with adaptive process control**
 Dr. Karl Pöll, Matuschek GmbH, Germany
14.30 – 15.00 **Automated process parameter optimisations with process simulation for spot welding**
 Dr. Wenqi Zhang, SWANTEC ApS, Denmark

15.00 – 15.15 **Coffee break**

15.15 – 15.45 **Welding HS and UHS steels; electrodes, wear and parameters**
 Mr. James Craggs, Outokumpu Copper Nippert, UK
15.45 – 16.15 **Advantages of Ni/TiC composite coated electrodes for resistance welding of AHSS (advanced high strength steels)**
 Mr. Nigel Scotchmer, Huys Industries Limited, Canada

16.15 – 16.45 **Closing remarks and discussions**

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GENERAL INFORMATION

Venue for Reception on 16 November and Seminar on 17 November 2004:

Ludwig-Erhard-Hall
Federal Institute for Materials Research and Testing (BAM)
Unter den Eichen 87, 12205 Berlin, Germany

Workshop on SORPAS[®] and User Group Meeting on 16 November 2004:

Haus 40, Room 223
Federal Institute for Materials Research and Testing (BAM)
Unter den Eichen 87, 12205 Berlin, Germany

Transportation and Accommodation:

Information of transportation and accommodation is given in the following websites:

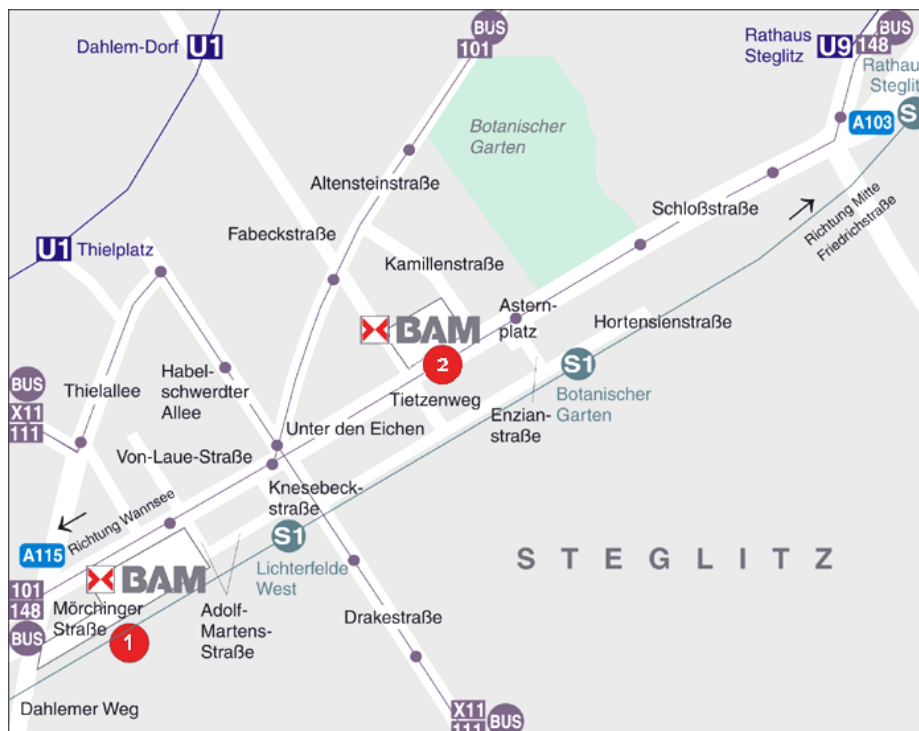
http://www.bam.de/english/about_bam/how_to_find_bam/headquarters.htm

http://www.bam.de/english/about_bam/how_to_find_bam/hotels_english.htm

For further information, please contact **Dr. Ping Xu** at BAM, Berlin.

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e-mail: ping.xu@bam.de



Dot 1: BAM Headquarters - Seminar Venue

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REGISTRATION FORM

Participant:

Name: _____ Ms. Mr. Dr. Prof.

Organisation: _____

Address: _____

Post code: _____ City: _____

Country: _____

Phone: _____

Fax: _____

E-mail: _____

INNOWELD.NET Membership of your organisation: No. _____

Participation:

	Registration before 8 October 2004	Registration after 8 October 2004
<input type="checkbox"/> Seminar on 17 November 2004	€95 / €325 ^a	€425 / €355 ^a
<input type="checkbox"/> Workshop on SORPAS [®] on 16 November	€50 / free ^b	€75 / free ^b
<input type="checkbox"/> User Group Meeting on 16 November	€50 / free ^b	€75 / free ^b

Note: a. The seminar registration fee for members of INNOWELD.NET.
b. The workshop and User Group Meeting are free for participants attending the seminar.
c. All prices are in Euro and exclusive of VAT.

Payment:

- Send invoice to me.
- Cheque made payable to SWANTEC Software and Engineering ApS.
- Bank transfer to Danske Bank, DTU-Branch, 2800 Lyngby, Denmark.
Reg. No. 4263, Account No. 4263877810.

Notice: Your name in the transfer is important for identification.

Please return to:

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