



DVS Conference

Digitalisation in Vocational Training and Further Education

February 20, 2019

Messe Essen, Congress Center Essen,
CC West, Essen/Germany

PROGRAM

Organisers:

DVS – German Welding Society

GSI – Gesellschaft für Schweißtechnik International mbH

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In kind collaboration with:

DVS Media GmbH

WeldPlus GmbH

EFW – European Federation for Welding, Joining and Cutting

International Institute of Welding (IIW)





INTRODUCTION

The international event entitled “Digitalisation in Vocational Training and Further Education” will provide all the participants with an outstanding platform for networking. It is being jointly organised by the DVS – German Welding Society, GSI – Gesellschaft für Schweißtechnik International mbH, the EWF – European Federation for Welding, Joining and Cutting and the International Institute of Welding (IIW). With the first conference, the organisers would like to highlight not only the state of the art but also, in particular, the direction of the future developments. In this respect, attention will focus on one question above all: Will the digitalisation of the working world which has concerned the media for quite some time with the Industry 4.0 term also have effects on training and further education?

Since qualification is seen as a way of gaining central access to the working world, this question must inevitably be answered with “yes”. In welding technology, virtual machines are taking over a part of the training contents. At large automobile manufacturers, we are already speaking of digital workshops and virtual learning processes. Precisely in the rather “down-to-earth” working world of the metal workplaces, the question about the “how” is a particular one for qualification. What role is being assigned to in-house and external further education in this situation?



A general willingness to acquire digital competence is certainly not sufficient here. It is necessary to develop up-to-date concepts and to describe these in detail with contents for qualification. Only in this way can optimally sector-specific competence be built up.

In our conference on Digitalisation in Vocational Training and Further Education, we want to come close to the answers to these questions. This will also include the discussion about what role progressive technologies are playing in the rigid education systems.

On February 20, 2019, DVS will offer a setting for such a conference in the Congress Center Essen, CC West, of Messe Essen. Together with the education experts from IIW, EWF, DVS, DVS Media, WeldPlus and GSI, we, with international experts, want to make this topic more transparent for us all.

TECHNICAL PROGRAM, HALL MAILAND

Wednesday

February 20, 2019

Plenary Session

Session Chair: R. Boecking

-
- 10:00 AM** **Welcome**
R. Boecking
-
- 10:05 AM** **Digitalisation and training in welding technology –
What can be done?**
J. Bergmann*
-
- 10:35 AM** **A European approach to changes in vocational
education training and digital training processes in the
manufacturing sector welding case**
E. Assunção*, L. Coutinho, R. Ferraz
-
- 10:55 AM** **Didactical potential for trainers and learners and
possibilities of a learning situation using an AR-welding
simulation**
C. Daniel*, M. Petersen
-

11:15 AM **Coffee Break**

Changes in Training and Further Education

Session Chair: W. Hildebrand-Peters

-
- 11:40 AM** **Studies on the effectiveness in the use of Virtual
Welding Training Systems (VWTS) in the qualification of
people with language barriers**
C. Pohlmann*
-
- 12:00 PM** **Modern learning in the GSI – New ways in education
and training**
F. Moll, J. Vogelsang*, S. Keitel
-
- 12:20 PM** **Digitalisation in vocational training of welders – New
machines, new methods, new problems**
W. Hildebrand-Peters*, F. Moll
-
- 12:40 PM** **Professional teaching material for digitalised training –
Combining the possibilities of digital training systems
with the experience of DVS Media**
P. Hoene*, S. Leising
-

01:00 PM **Lunch Break**

Technology and Equipment

Session Chair: P. Hoene

-
- 01:35 PM** **Augmented Industry 4.0**
A. Villarán*
-
- 01:55 PM** **Education and learning in the digital age of welding technology**
N. Zauner*, J. Kreindl
-
- 02:15 PM** **Potential of network supported welding equipment in the welding education**
B. Ivanov*
-
- 02:35 PM** **Welder qualification 4.0 – Strategies and best practice examples**
A. Richter*
-

02:55 PM **Coffee Break**

Digitalisation and Simulation

Session Chair: A. Richter

-
- 03:25 PM** **AVANTO® Welding management traceability. Quality. Efficiency.**
K. Sybis*
-
- 03:45 PM** **Next generation robot programming**
L. Barteveyan*
-
- 04:05 PM** **Sensor-based robot programming for automated welding of high orthogonal volume structures**
A. Zych*, A. Harmel
-
- 04:25 PM** **Real time physical simulation for virtual welding training**
M. Simon*, O. Mokrov, A. Schmidt, U. Reisgen, A. Behmel, J. Martin, D. Rudolph, A. Becirovic
-
- 04:45 PM** **Closing Remarks**
J. Vogelsang
-

INFORMATION

Conference Location

Messe Essen, Congress Center Essen, CC West, Hall Mailand
Norbertstr., 45147 Essen, Germany

Registration

E-Mail or fax

Send your complete registration form to:

DVS – German Welding Society

P.O. Box 10 19 65, 40010 Düsseldorf, Germany

P +49 211 1591-302/-303

F +49 211 1591 300

tagungen@dvs-hg.de

Online

You can also use the online registration: www.dvs-ev.de/digitalisation2019
(only possible until February 12, 2019)

Registration Fees

See registration form or online: www.dvs-ev.de/digitalisation2019

On-Site Registration and Check-in at the Registration Desk

Registered attendees should check-in and collect their conference documents at the registration desk located in the Messe Essen, Congress Center Essen, CC West, Foyer Hall Mailand, Norbertstr., 45147 Essen, Germany

Opening Hours for the Registration Desk are as follows:

Wednesday, February 20, 2019 08:30 – 16:00

Cancellation

Cancellation must be in writing to DVS. An administration fee of EUR 150 will be applied to all cancellations made before or on January 29, 2019. No refunds will be given for cancellation made after January 29, 2019.

A substitute can be nominated.

Conference Information

The conference will take place as a discussion event. The names of the lecturers are followed by an asterisk. The language of the conference is English.

Conference Proceedings

The conference proceedings will be published in advance with all illustrations and tables.

List of Attendees

All attendees having registered before January 29, 2019 will be entered into a list of attendees. The list will be distributed free of charge during the conference.

Exhibition / Catering

During all breaks you will have the opportunity to visit a small exhibition with the actual welding trainer systems in Hall Brüssel. Coffee/water and lunch will be served.

Hotel Reservation

<https://www.hrs.de/>

https://www.visitessen.de/essentourismus_tourismusinformation/uebernachten/startseite.en.html

Travel Connections / Parking

<https://www.cc-essen.de/congress-center-essen/arrival/>

Parking: P6 (EUR 6/day)



PRESENTING AUTHORS, SESSION CHAIRS

A

Assunção, E. EWF – European Federation for Welding,
Joining and Cutting, Porto Salvo, Portugal

B

Bartevyan, L. CENIT AG Digital Factory Solutions, Ratingen
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Boecking, R. DVS – German Welding Society, Düsseldorf

D

Daniel, C. Universität Bremen, Bremen

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Hildebrand- GSI – Gesellschaft für Schweißtechnik
Peters, W. International mbH, NL Bildungszentren
Rhein-Ruhr, Oberhausen
Hoene, P. DVS Media GmbH, Düsseldorf

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Ivanov, B. EWM AG, Mündersbach

P

Pohlmann, C. Schweißtechnische Lehr- und
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R

Richter, A. WeldPlus GmbH, Müschenbach

S

Simon, M. RWTH Aachen University, Aachen
Sybis, K. Linde AG, Hamburg

V

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Organisation

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