



American Welding Society

Alberta Section



Aspects on the Joinability for Advanced Designs

by Dr. Horst Cerjak (Graz University of Technology)

Thursday, March 3, 2011 - a joint event with ASM Edmonton Chapter

2010-2011 Executive

Joel Pepin, Chairman
joel.pepin@albertainnovates.ca

Chris Vrolyk, Vice Chairman
chris.vrolyk@tdwilliamson.com

Dale Lesik, Treasurer
dale.lesik@atcopipelines.com

Rick Witzke, Secretary
rick.witzke@amec.com

Ken Nelson, Program Co-Chair
ken.nelson@gov.ab.ca

Matthew Yarmuch, Special Events Chair
matthew.yarmuch@albertainnovates.ca

Patrick Belanger, Sponsorship Chair
p.belanger@shell.com

Wanda Griesheimer, Scholarships Chair
wanda@qualimetinc.com

Kioumars Poorhaydari, Awards Chair
kpoorhaydari@acuren.com

Kurtis Bell, Publicity Co-Chair
bell.kurtis@gmail.com

Shawn Wylie, Publicity Co-Chair
swylie@masterflo.com

Kimberley Meszaros, Facility Coordinator
kmesaros@masterflo.com

Adrian Gerlich, Education Co-Chair & Technical Chair
gerlich@ualberta.ca

Patricio Mendez, Education Co-Chair
pmendez@ualberta.ca

Brett Berger, Student Rep (U of A)
bberger@ualberta.ca

Christopher Lantos, Student Rep (NAIT)
chrislantos@gmail.com

Sheri Acheson, Fort McMurray Rep
acheson.sheri@syncrude.com

Jim Mitchell, Calgary Rep
mitchell@suncor.com

Jacek Mielczarek, CATS Rep
jacek.mielczarek@huskyenergy.com

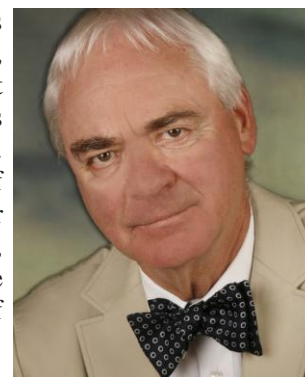
Darcy Yantz, Member-at-Large
darcy.yantz@cwbgroup.org

James Lambert, Member-at-Large
jamesl@ludwigassociatesltd.com

Rachel Duncan, Member-at-Large
duncan.rachel@syncrude.com

Abstract

Advanced designs in engineering are generally determined by demands for higher functionality, minimum weight, higher safety requirements, sustainability and minimized costs. A better understanding of the impact of joining processes on the fabrication process and service behaviour is essential for the realization of new designs with higher functionality. Some of the challenges involved in advanced designs include joining of dissimilar materials, development of optimized materials and welds for specific services, increased life time through special joint treatments, and the combination of mechanical and functional properties. The presentation will outline these challenges, with some examples of various materials, including a look at friction stir welding.



About our Speaker

Horst Cerjak received his degree in Metallurgy at the University of Mining and Metallurgy Leoben (Austria 1963), and his Doctorate in Materials Science (Germany 1966). Horst worked at Siemens AG in Germany in the Materials & Welding Reactor Components department (1967 -1982), while lecturing at the University of Mining and Metallurgy Leoben (1974 – 2003). Horst became a full professor of Materials Science and Welding Technology at Graz University (1982-2008), and is currently a Professor Emeritus. He has over 350 journal and conference publications in a variety of areas including Welding Science and Technology, Nuclear Materials, and High-Temperature Creep-Resistant Steels and Corrosion. Horst has received numerous awards, including the IIW Sossenheimer Software Innovation & Y. Arata Award, Adams Lecture Award from AWS, ASM Fellow Award, and Dr. Wolfgang Houska Prize (the highest donated Austrian Research Award).

WHEN: Thursday, March 3, 2011

WHERE: University of Alberta Faculty Club, 11435 Saskatchewan Drive
(Use Parking Lot V, or Windsor Car Park, off 116 Street)

TIMES: 6:00 pm Registration & reception
6:30 pm Dinner
7:30 pm Presentation, followed by brief Q&A session

COST: Members \$25.00; Non-Members \$35.00; Student Members \$10.00.
All members of AWS, CWA, ASM, NACE, and SME will be charged as members. Cash or cheque only please.

NOTE: Student non-members can sign up for 1 free-year of AWS membership.
(Students who have received free AWS membership in the past are ineligible)

REGISTRATION:

Please confirm your attendance before February 28, 2011 by contacting:
Katherine Jonsson at katherine.jonsson@gmail.com.

Please state name(s), company, phone number and member affiliation when registering.

Visit Our Website at:
<http://awssection.org/alberta>

Register Early! Limited Space!

Thank You to Our Platinum Sponsor



Thank You to Our Gold Sponsors



Thank You to Our Silver Sponsors



Thank You to Our Bronze Sponsors



Please Ask Us About Sponsorship Opportunities



American Welding Society

Alberta Section



2010-2011 Technical Events Schedule

DATE	SPEAKER	TOPIC	HOST	LOCATION
Sep. 24, 2010 (Friday)	Dr. H. Bhadeshia (University of Cambridge) Dr. Eric Sjerve (IRISNDT Corp.) Dr. Michael Moles (Olympus NDT) Peter den Boer (Applus RTD) Brian Reed (Acuren Group)	AWS Fall Seminar - Advanced Ultrasonic Examination Methods for Weld Inspection	AWS	AITF Edmonton (250 Karl Clark Rd)
Oct. 22, 2010 (Friday)	Dr. Gary Fisher (AITF) Dr. Tonya Wolfe (AITF)	Workshop: Wear Overlays with a Focus on Plasma Transfer Arc Welding Applications	AWS & ASM-Cgy	AITF Calgary (3608 - 33 St NW)
Oct. 28, 2010 (Thursday)	Dick Marini (Praxair) Kevin Sloman (Praxair)	Praxair Air Separation Presentations: The How's of Industrial Gases	CWA	U of A Faculty Club
Nov. 2, 2010 (Tuesday)	Social Mixer	Alberta Night Reception at FABTECH / AWS Welding Show	AWS & U.ofA. CCWJ	Hyatt Regency (Atlanta, Georgia)
Nov. 17, 2010 (Wednesday)	Jim Suggett (Imperial Oil Resources)	The Kearl Oil Sands	EATS	AITF Edmonton (250 Karl Clark Rd)
Jan. 05, 2011 (Wednesday)	Uwe Aschemeier (H. C. Nutting, a Terracon Company)	Calgary Presentation: Underwater Weld Repair	AWS & CWA Cgy	TBD
Jan. 06, 2011 (Thursday)	Uwe Aschemeier (H. C. Nutting, a Terracon Company)	Edmonton Presentation: Underwater Weld Repair	AWS & CWA Edm	U of A Faculty Club
Feb. 10, 2011 (Thursday)	Dean Phillips (ITW - Hobart Brothers Company)	Low Alloy Steel Submerged Arc Welding Consumables	AWS	U of A Faculty Club
Mar. 3, 2011 (Thursday)	Dr. Horst Cerjak (Graz University of Technology)	Joinability for Advanced Designs	AWS & ASM Edm	U of A Faculty Club
Mar. 10, 2011 (Thursday)	Matthew Yarmuch (Alberta Innovates – Technology Futures)	Welding Productivity	CWA	U of A Faculty Club
Apr. 14, 2011 (Thursday)	Dr. Kioumars Poorhaydari (Acuren)	What Happens in the HAZ Doesn't Always Stay in the HAZ	AWS	U of A Faculty Club
May 26, 2011 (Thursday)	John Bringas (Codes and Standards Training Institute)	Welder's Night	AWS	Souch Campus (to be confirmed)