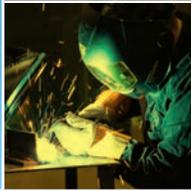




# 8<sup>TH</sup> ANNUAL NATIONAL WELDING EDUCATORS CONFERENCE



## EDUCATING WELDERS The Future of our Industry



MAY 30 & 31, 2019 : HALIFAX, NS



| cwbgroup



# 8<sup>TH</sup> ANNUAL NATIONAL WELDING EDUCATORS CONFERENCE

# EDUCATING WELDERS The Future of our Industry

## EVENT INFORMATION

### EDUCATORS CONFERENCE 2019 Dartmouth, NS

**DATE: MAY 30TH AND 31ST, 2019**

**Hosted by: Nova Scotia Community College (NSCC)-  
Akerley Campus**

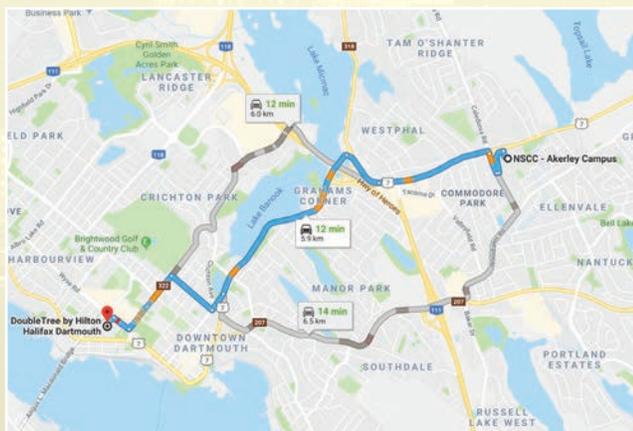
**CONFERENCE COST: \$0**

### VENUE ADDRESS:

**(NSCC)- Akerley Campus  
21 Woodlawn Rd  
Dartmouth, NS B2W 2R6**

All conference sessions will be held  
at NSCC on both May 30/31

The conference location is a 12 minute drive from the hotel.  
Local transportation such as taxi and bus are available.



### CONFERENCE REGISTRATION:

[https://www.cwbgroup.org/association/conferences/  
educators-conference-2019](https://www.cwbgroup.org/association/conferences/educators-conference-2019)

### »» ACCOMMODATIONS:

**Doubletree by Hilton  
101 Wyse Road  
Dartmouth, Nova Scotia  
B3A 1L9**

**TEL: 1-855-610-8733 | 1-902-463-1100**

**WEB: Visit the Doubletree website  
and use GROUP CODE: CWB**

### »» NETWORKING EVENTS

**May 29th Reception-Registration Evening  
Location: Doubletree by Hilton (Harbourside Terrace)  
Time: 6:00pm to 8:00pm  
Event: Registration, networking, cash bar, refresh-  
ments and light snacks provided**

**May 30th Annual CWB Educators Dinner  
Location: Doubletree by Hilton (Lake City Ballroom)  
Time: 6:00pm to 9:00pm  
Event: Networking, cash bar, sit down meal provided**

### »» SPONSORSHIP OPTIONS

[https://www.cwbgroup.org/sites/default/files/docs/  
educon19\\_sponsorships.pdf](https://www.cwbgroup.org/sites/default/files/docs/educon19_sponsorships.pdf)





**8<sup>TH</sup> ANNUAL NATIONAL WELDING  
EDUCATORS  
CONFERENCE**

**EDUCATING WELDERS**  
The Future of our Industry

**WELCOME TO THE 8<sup>TH</sup> ANNUAL EDUCATORS CONFERENCE**



**STEPHEN  
MCNEIL**



**HONOURABLE STEPHEN MCNEIL | M.L.A. Premier**

**On behalf of the Province of Nova Scotia, welcome to the 8th Annual National Welding Educators Conference.**

Young, diverse talent is helping to create a more innovative and competitive skilled workforce. It is also helping to drive our province's economic future. We are focused on encouraging employers in the province to hire and train apprentices and are working with more young Nova Scotians as they choose to pursue careers in the skilled trades.

We all have a role in strengthening our workforce and providing quality opportunities to help our youth make informed career decisions. This conference is a great opportunity for educators to learn insights and best practices from counterparts across the country and apply them in classrooms back home.

Our skilled tradespeople play an important role in our present and future workforce. Together, we can work to attract, retain, and train apprentices to help build a strong, inclusive, and innovative province.

Sincerely,

Honourable Stephen McNeil, M.L.A.  
Premier



**LABI  
KOUSOULIS**

**HONOURABLE LABI KOUSOULIS**

The Honourable Labi Kousoulis was first elected to the Nova Scotia House of Assembly as MLA for Halifax Citadel-Sable Island in 2013 and was re-elected in 2017.

He has served as Minister of the Public Service Commission and Minister of Internal Services.

He is a Certified Management Accountant and a small business owner.

He is a member of the Internal Affairs Committee. He is also a member of the House of Assembly Management Commission.



**NOVA SCOTIA  
LEGISLATURE**



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**8<sup>TH</sup> ANNUAL NATIONAL WELDING  
EDUCATORS  
CONFERENCE**

**EDUCATING WELDERS**  
The Future of our Industry

**WELCOME TO THE 8<sup>TH</sup> ANNUAL EDUCATORS CONFERENCE**



**ZACH  
CHURCHILL**



**HONOURABLE ZACH CHURCHILL | M.L.A.**  
Minister of Education and Early Childhood Development

**On behalf of the Department of Education and Early Childhood Development, it is my pleasure to welcome everyone to the CWB Group's 8th annual National Welding Educators Conference.**

We are very pleased to have the opportunity to host the conference at the Nova Scotia Community College Akerley Campus, an integral part of a network of thirteen NSCC campuses and three community learning centres across our province.

This conference will provide a shared learning experience for welding educators who work together to maintain high standards and practices, strive for excellence in supporting learners and develop a workforce with the skills and competencies needed to succeed and excel in the welding profession. Skilled trades professions have been, and will continue to be, a vital part of Nova Scotia's culture and economy.

Whether you are educating students in a high school, college, or as an apprentice, individuals engaged in career pathways in the welding trade rely on your mentoring and expertise to guide them on their educational and professional journey. Opportunities like this conference help you learn from each other to enrich your students' experience.

Best wishes for an effective and productive conference.

Sincerely,

Honourable Zach Churchill | M.L.A.  
Minister of Education and Early Childhood Development



WELDING EDUCATORS CONFERENCE 2019



## WELCOME TO THE 8<sup>TH</sup> ANNUAL EDUCATORS CONFERENCE



**DAN  
TADIC**

**DAN TADIC | Executive Director, CWB Association**

### **Educating Welders- The Future of our Industry**

**We are very pleased to welcome you to our 8th Annual Welding Educators Conference.**

We have come a long way since our first Welding Educators Conference in Milton Ontario back in 2012. Our intent is always to inform educators about innovative advancements in various welding technologies. It is our hope that each and every one of you have gained valuable knowledge from our annual conference and each time that you return home you share what you have learned with your colleagues and students.

We are also very proud to say that your voice is respected, and we have taken your advice and made significant investment to help our educators at all levels of education. The Association and Foundation are working together to improve welding education We have made investments in Acorn online training tool, Rubric weld sample evaluation tool, Apprenticeship and much more.

**Here is a very brief summary of our initiatives and investments:**

- **ASSOCIATION :** The Association provides leadership and helps with the promotion of welding industry and education across Canada. We provide networking opportunities through organized events such as conferences, seminars and communicate with our membership through WELD magazine and Channel publications. The Association collaborates with the Foundation in the promotion and funding of welding education.
- **ACORN:** At the 2012 Conference we heard your message loud and clear about the need to harmonize welding education. Since 2015, we have made over \$3 million investments in the development of Acorn educational resources. The Acorn system of training materials is currently in full use or in pilot phase at over 35 colleges, 200 high schools and a number of large businesses across Canada. Acorn has many teaching enhancements such as high resolution visual images, short video clips, 3D scanned samples, etc. You cannot find these in a text book.
- **RUBRIC:** In Halifax in 2014 we asked you to evaluate 40 weld samples. We were hoping that the percentile discrepancy would be in the range of 10%, however, the marking was more varied and on multiple samples it ranged from 0-95%. To address this issue, we formed a committee to see what we could do to narrow the gap. After much consultation with many educators, we have developed new welding evaluation Rubric tool. This tool will be launched at this year's conference and will be made available to all educators at no cost.
- **APPRENTICESHIP:** To address Canadas skills shortage, we are making a \$1 million investment over 5 years to enhance the welding apprenticeship programs across Canada through our Enhanced Welding Apprenticeship Training (EWAT) initiatives. It is our intent to increase enrolment rates, increase completion rates, improve the skills development and increase the number of employers that participate in apprenticeship training. This is our pilot program and is being implemented in major centres across Canada

These are significant initiatives and investments that will lead to improved education and skills development for the betterment of the Canadian society.



**cwb**association





## WELCOME TO THE 8<sup>TH</sup> ANNUAL EDUCATORS CONFERENCE



**SUSAN CROWLEY**

**SUSAN CROWLEY** | Executive Director, CWB Welding Foundation

### The CWB Welding Foundation: Impact Investing and Opportunities Ahead

As a former secondary school educator, business leader and CEO, and having experience leading teams in both financial services and the not for profit sector, I see tremendous potential for the CWB Welding Foundation to build awareness, increase accessibility, and support quality welding education that helps solve a growing crisis in skilled trades – particularly in developing the next generation of welding professionals – to take on rewarding careers in Canadian industry. Since joining the Foundation and leadership team of the CWB Group in September 2018, my colleagues, our Boards of Directors, and our stakeholders across technology education, workforce and community development have been instrumental in helping me to learn the basics about the welding industry in Canada, and our significant challenges in attracting welders to fill the skill gaps within dynamic, growing and new emerging industries. I look forward to meeting you at the Educators Conference, sharing experiences and insights and working together as we pursue our mission, 'to forge partnerships between industry, education and government that enable Canadians to build great careers in the welding industry, through encouraging awareness, training, the promotion of best practices through a quality educational experience, impartial advocacy and greater accessibility.' While a lot has happened, and investments totaling over \$13 million by the Foundation and our donors have truly made a difference, much remains to be done. Welcome to "The Future of our Industry", and thanks for all you do to inspire and lead the next generation of welding professionals.



**cwbwelding foundation**  
building the future of welding in Canada



**DON BUREAUX**

**DON BUREAUX** | President, Nova Scotia Community College (NSCC)

### We can't wait to welcome you to Nova Scotia and to NSCC's Akerley Campus

**your hosts for this year's Canadian Welding Bureau Association Educators Conference!**

What a perfect setting. Since the National Shipbuilding Strategy decision was released, the College has been a keen partner in providing education and training vital to the success of the 30-year contract. Through our partnership on the Irving Centre of Excellence, our Welding and Metal Fabrication faculty and staff have been supporting important pathways programs for those underrepresented in the marine industry. These graduates are taking their success and assisting in creating a stronger, more diverse workforce for the marine sector and, in turn, inspiring growth within our communities.

While this is just one example of the work the College does to support this growing industry, it highlights the importance of partnerships. I am pleased we are providing the meeting place for educators, industry and government to gather to learn more about the sector, share ideas, and cultivate new partnerships.

By working and learning together we will continue to enhance this important sector.



WELDING 2019



## SCHEDULE

### DAY 1, WEDNESDAY, MAY 29<sup>TH</sup>

6:00PM TO 8:00PM	<p align="center"><b>CWA Educators Conference RECEPTION (Registration and Networking Social) Guest Speaker:</b>  <b>Marjorie Davison- Nova Scotia Apprenticeship/CCDA</b>  <b>Location: Double Tree Hotel- Harbourside Terrace, 101 Wyse Rd. Dartmouth, NS</b></p>
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### DAY 2, THURSDAY, MAY 30<sup>TH</sup>

7:30AM TO 8:30 AM	<p align="center">Registration and Networking Breakfast  <b>Location: Nova Scotia Community College- Akerley Campus, 21 Woodlawn Rd, Dartmouth, NS</b></p>
8:30AM TO 8:45AM	<p align="center"><b>Welcome and Introductions: Dan Tadic- Executive Director, CWB Association</b> Location: Lecture Theatre</p>
8:45AM TO 9:00AM	<p align="center">Welcome: Kathleen Allen, Akerley Campus, NSCC</p>
9:00AM TO 9:20AM	<p align="center"><b>CWB Welding Foundation-Updates and Opportunities: Susan Crowley, Executive Director</b></p>
9:20AM TO 9:50AM	<p align="center"><b>No Perfect Weld- A Technical Approach to assessment of weld faults -</b>  <b>Josh Brewster, SAIT Welding Engineering Technology</b></p>
9:50AM TO 10:10AM	<p align="center">Break</p>
10:30AM TO 12:00PM	<p align="center"><b>Mini Trade EXPO in the Gym: Concurrent Rotational presentations by Welding Supplier Sponsors</b></p>
12:00PM TO 1:00PM	<p align="center">Lunch</p>
1:00PM TO 3:00PM	<p align="center"><b>Workshop: Harmonizing Welder Assessment in Canada-</b>  <b>Official launch of the CWB Association Rubric- Ken McKen, CWB Association</b></p>
3:00PM TO 3:10PM	<p align="center">Break</p>
3:10PM TO 3:40PM	<p align="center"><b>Electrical Hazard Reduction &amp; other updates to CSA W117.2- Jim Galloway, Conestoga College:</b></p>
3:40PM TO 4:10PM	<p align="center"><b>Welding- Beyond Our Borders with Mercy Ships- Fred Walkley, Grande Prairie Regional College</b></p>
6:00PM TO 9:00PM	<p align="center"><b>Annual CWB Educators Dinner</b>  <b>Location: Double Tree Hotel- Lake City Ballroom, 101 Wyse Rd. Dartmouth, NS</b></p>





**SCHEDULE**

<b>DAY 3, FRIDAY MAY 31ST</b>	
7:30AM TO 8:30AM	<b>Networking Breakfast</b> Location: Nova Scotia Community College- Akerley Campus, 21 Woodlawn Rd, Dartmouth, NS
8:30AM TO 9:30AM	<b>CWB Association Roundtable Discussion: Enhanced Welder Apprenticeship Training (EWAT)</b>
9:30AM TO 10:00AM	<b>"The Value of Implementing Virtual Training Technology in Welder Training": Dave Landon, Vermeer Corporation</b>
10:00AM TO 10:15AM	<b>Break</b>
10:15AM TO 10:45AM	<b>Curriculum ideas in order to achieve Metal Fabricator skills required by Industry: Val Bolsterli, Fleming College</b>
10:45AM TO 11:15PM	<b>"Underwater Projects- An Overview": Uwe W. Aschemeier, Subsea Global Solutions</b>
11:15AM TO 11:45AM	<b>"Innovative Manufacturing- what is it and how do we teach it"- Max Ceron, Saskatchewan Polytechnic</b>
12:00PM TO 1:00PM	<b>LUNCH</b>
12:30PM TO 2:00PM	<b>Open Roundtable Discussion: Building Skills, Building Communities, Building Canada - CWB Welding Foundation Team Location: Lecture Theater</b>
2:00PM TO 3:00PM	<b>Apprenticeship at Irving Shipbuilding: Ralph England, Training Team Lead</b>
3:00PM TO 3:15PM	<b>Closing Remarks: Dan Tadic- Executive Director, CWB Association</b>

**PLEASE NOTE: Conference schedule subject to change**





Canadian | Métiers de  
Piping Trades | la tuyauterie

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of the  
2019 NATIONAL WELDING  
EDUCATORS CONFERENCE**



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**UA Members have built  
our communities, towns,  
and cities for the last 100 years**

**You could say we've been around the block a  
few times, and then some. Along the way we've  
gotten a deserved reputation for being the best,  
most professional tradespeople in the industry.  
It's been a long journey, and we're not done yet.**



United Association  
of Journeymen and Apprentices  
of the Plumbing and Pipe Fitting Industry  
of the United States and Canada



Canadian Head Office  
442 Gilmour Street,  
Ottawa, Ontario K2P 0R8  
P (613) 565-1100 F (613) 565-1200



8<sup>TH</sup> ANNUAL NATIONAL WELDING  
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EDUCATING WELDERS  
The Future of our Industry

## SPEAKERS



**MARJORIE DAVISON | Nova Scotia Apprenticeship Agency, CEO and CCDA Past Chair**

### Atlantic Apprenticeship Harmonization Project

Marjorie will share the strategic priorities of the Canadian Council of Directors of Apprenticeship and its current work on trades training harmonization. She will also speak to the Atlantic Apprenticeship Harmonization Project and Nova Scotia's recent work with the CWB to promote the Welder Trade.

**BIO** Marjorie Davison completed her education at the University of North Carolina at Chapel Hill (B.A.) and Dalhousie University (M.A.) and is the CEO of the Nova Scotia Apprenticeship Agency. She has served two terms as Chair of the Canadian Council of Directors of Apprenticeship (CCDA), the body responsible for the administration of the Red Seal Program. She served previously as the Executive Director, Corporate Policy and Services, Director of Policy, and Director of Apprenticeship Training and Skill Development for the Nova Scotia Department of Labour and Advanced Education. At this time, she also served as President of the Techsploration Board of Directors, a member of the Canadian Apprenticeship Forum Board of Directors and a member of the Acadia Entrepreneurship Centre Board of Directors. Marjorie currently chairs the Provincial/Territorial Apprentice Mobility Executive Group and participates actively as a member of the Atlantic Apprenticeship Council and the Maritime Provinces Higher Education Commission. In her current CEO role, she is committed to enabling women and diverse groups to share in the economic prosperity that careers in the skilled trades have to offer. Marjorie has a focused interest in youth mental health, making learning more accessible and inclusive and encouraging greater industry and employer involvement in education and training.

**MARJORIE  
DAVISON**

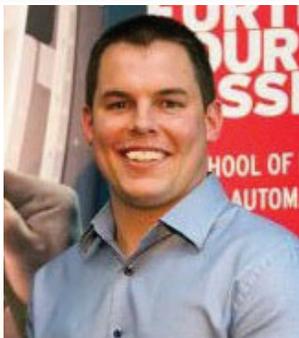


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WELDERS UNITE 2019



## SPEAKERS



**JOSH BREWSTER**



**JOSH BREWSTER | Academic Chair- Welding Engineering Technology/Non-Destructive Testing, SAIT**

### No Perfect Weld: A technical approach to assessment of weld faults

As an inspector, and most importantly as a welder, I am always observing the welded environment around me. From handrails to overhead piping, it is fascinating how many welded products loaded with weld faults are in service all around us every day. Often, weld faults that I would consider unacceptable in my line of work are completely acceptable in others. As the saying goes, there are "no perfect welds", that is, weld faults are inevitable in welded products. How many are too many? Why are some weld faults permitted in some cases and not in others? For weld faults that can be measured, why is the acceptance criteria different from one standard to another? Who is right and who is wrong? When is a weld good enough? This presentation is designed to provide an overview of the key difference between a weld defect and weld discontinuity. Using a technical perspective, common weld faults will be examined to draw a connection between the welded product service requirements and the weld fault acceptance criteria applied to the product. The technical approach used in this presentation will also be applicable to marking criteria for welding students in both secondary and post-secondary education.

**BIO** Josh Brewster, CET, RSE is a licensed Pressure Welder, Welding Inspector, Welding Examiner, In-Service Pressure Vessel Inspector, and Welding Engineering Technologist with over ten years of experience in the field of welding and non-destructive testing. Previously, Josh was an instructor within the Welding Engineering Technology Program at SAIT where he taught Codes and Standards, Robotics, Pressure Vessel Construction, and Failure Mitigation. He is now the Academic Chair of both the Welding Engineering Technology and Non-Destructive Testing Departments at SAIT. Josh is the Program Chair of the Calgary Chapter of the CWB Association, a member of the International Pressure Equipment Integrity Association Education Subcommittee, National Non-Destructive Testing Certification Body Scheme Committee, as well as the AWS D10 Committee on Piping and Tubing.



**KEN MCKEN**



cwbassociation

**KEN MCKEN | CWB Association Mgr. Manager, Western Canada**

### Harmonizing Welder Assessment in Canada- Official Launch of the CWB Association Rubric

The CWB Association continues to invest considerable time and effort to harmonize welder assessment across the nation. This initiative has come full circle- returning once again to NSCC- Akerley Campus in Dartmouth, Nova Scotia where we held our initial workshop in 2014. This success story is largely due to the commitment of a well-respected committee of Welding Educators, who have made significant contribution to developing a long over-due unified RUBRIC template. The CWB Association is proud to announce the formal launch of this product and generously offers this template to all Welding Educators at no cost, to enhance current welding training programs. Unified evaluation will improve mobility of welding apprentices between jurisdictions and promote recognition of all certification at par.

**BIO** Ken Mcken, has enjoyed Manager responsibilities with the CWB Association for the past 5½ years. Ken has an extensive background in the welding industry, starting his teaching career in Alberta in 1995. Ken has received several awards recognizing his contributions to apprenticeship training throughout his career. Ken has recently accepted position on the Alberta Welding Optimization Committee (AWOC) Board of Directors. Ken is also actively involved with several other commissions, including the Canadian Council of Directors of Apprenticeship (CCDA)- Industry Stakeholders Committee; Alberta Advanced Manufacturing Committee and NAIT's Materials Engineering Technology Advisory Board. Ken is also involved with SKILLS Alberta Provincial Technical Committee and has been involved with the SKILLS Canada competitions for many years. Although Ken maintains a strong work ethic to enhance our Canadian Welding Industry and Educational Sector mentoring the new Welder generation, his true passion remains at the helm of his Yacht, fishing for the illusive Walleye on the wild blue waters of Lesser Slave Lake, Alberta!

Please join us for a live demonstration and interactive workshop to share this wonderful resource tool.





## SPEAKERS



**JIM  
GALLOWAY**

**JIM GALLOWAY | Coordinator of Welding Programs Conestoga College**

### "Electrical Hazard Reduction and other updates to CSAW117.2"

This talk will provide a general update to the new 2019 edition of CSAW117.2, Canada's national standard concerning the health and safety of welding personnel. One focus will be on updated requirements for electrical hazard reduction in arc welding put in-place in response to a concerning cluster of fatal electrocutions and serious electrical shock injuries in Canadian welders over recent years. Other updates will focus on new the requirements for PPE, footwear, and respiratory protection, etc.

**BIO** Jim Galloway is a Professor and the Coordinator of Welding Programs at Conestoga College in Cambridge, Ontario. He holds a B.A.Sc. and is a graduate of the Welding Technology program at Conestoga. He is also a Journeyman Welder (Red Seal). Over his 37-year career he has worked as a welding inspector and R&D technologist in the power generation industry, a technical manager in the rail-car manufacturing industry, and the manufacturing manager for a production machinery manufacturer. Jim also volunteers with several CSA Technical committees including CSAW117.2 for welding safety.



**FRED  
WALKLEY**

**FRED WALKLEY | Instructor at Grande Prairie Regional College**

### Welding: Beyond Our Borders with Mercy Ships

A personal story about welding internationally, Fred will share his experience with Mercy Ships during its 2018 annual shipyard maintenance period that took place in Gran Canaria Spain.

He will present an overview of what the global charity Mercy Ships does, giving insight into the reason why they exist and the people they help. Canada's involvement will be included with the current and future work in Africa of transforming lives.

Using a humorous approach about ship life to how welding outside of Canada is different, he will including topics such as, bring on the heat, survive the pressure, watch out for the standards, and did I really set off that alarm. How standards were maintained while working with tradesmen from different countries in a multi-cultural setting will be explained.

**BIO** Fred Walkley is a welding instructor at Grande Prairie Regional College. Starting as an educator in 2001 his current responsibilities can include any aspect of training from apprenticeship, short courses for other trades, welding camps, or general interest.

His welding career started back in the 1980's as a journeyman welder with a red seal endorsement. Work has seen him involved in a wide range of industries that has included mill, mine, and fabrication. While still loving the welding, job satisfaction now comes from helping others develop their own skillset and love of the trade.

Recently he had the opportunity to volunteer as a welder on the "Africa Mercy", a hospital ship operated by Mercy ships whose mission is to bring free healthcare to those who need it most.





**8**<sup>TH</sup> ANNUAL NATIONAL WELDING  
**EDUCATORS  
CONFERENCE**

# EDUCATING WELDERS

The Future of our Industry

## SPEAKERS



### **cwbaassociation | ENHANCED WELDER APPRENTICESHIP TRAINING (EWAT) Roundtable Discussion**

In 2017 the CWB Association published a study of the status of welding apprenticeship in Canada. The study revealed that the enrollments and completions rates in apprenticeship training were well below what is required to ensure that our industry has adequate supply of well trained skilled welders and metal fabricators for its current and future needs.

The CWB Association is undertaking a five year study to see if a new model of apprenticeship training could increase the enrollment and completion rates and improve the current employer engagement in training from the current level of 19% for all trades. We are in the launch mode of the EWAT program and are asking participating employers to allow apprentices to rotate within the study group every term to give apprentices greater opportunity to enhance their skills development.

For our discussion and in your view: • Is this the best approach? • What needs to change in order to: Improve enrollment, Improve completion rates, Improve skills development, Increase employer participation.



### **DAVE LANDON | Manager of Welding Engineering Vermeer Corporation**

## **The Value of Implementing Virtual Training Technology in Welder Training**

As virtual reality weld training technology continues to gain popularity, a common question asked is "What is the value?". This presentation will provide a real life example of how a large equipment manufacturer uses virtual reality and motion tracking cameras to improve the training of entry level and experienced GMAW welders.

**BIO** David Landon is the Manager of Welding Engineering for Vermeer Corporation located in Pella, Iowa. He has developed a world class welder training program, metallurgy lab, and welding engineering department. He has been a member of the American Welding Society for over 30 years and in 2015 was the national President of AWS.

He is an AWS Certified Welder, Certified Welding Supervisor, Senior Certified Welding Inspector, and is a member of the 2009 Class of Counselors for the American Welding Society. He holds a Bachelor of Science degree in Welding Engineering from LeTourneau University of Longview, Texas.

**DAVE  
LANDON**



### **VALENTIN (VAL) BOLSTERLI | Professor at Sir Sanford Fleming College in Ontario.**

## **Curriculum ideas in order to achieve Metal Fabricator skills required by Industry.**

In August of 2012, Valentin Bolsterli was hired by Fleming College as a coordinator/professor with the mandate to develop a Welder/Fabricator program in order to alleviate some of the challenges brought forth by local industry. This program was set up as a two-year welder/fabricator program where the first-year students could graduate with some CWB welding tickets, additional fit up skills, as well as the soft skills required by industry. Those who chose to complete the two years, graduated with enhanced theoretical understanding as well as having applied their knowledge in building an actual "pressure vessel".

**BIO** Valentin has been in the welding industry for 30+ years now. Having completed a 3 year pressure welder/fitter program in Quebec he had the chance to build aluminum highway signs, heat exchangers and even run his own mobile welding business. Valentin has been involved in quality control to ASME specifications and is a Level II inspector to CSA W47.1/W59. Currently Valentin is a Member of CSA W117.2 & CSA/C232 and SCC/IEC/TC26 and on his eighth year as a professor.

**VALENTIN (VAL)  
BOLSTERLI**



**Fleming College**





## SPEAKERS



**UWE  
W. ASHEMEIER**



**SUBSEA GLOBAL**  
S O L U T I O N S

**UWE W. ASHEMEIER | Sr. Welding Engineer Subsea Global Solutions, LLC.**

### UNDERWATER PROJECTS - AN OVERVIEW

This presentation is an all picture slide show, providing an overview of underwater water repair projects with emphasis on underwater wet welding. It introduces the audience to hyperbaric wet and dry welding, as well as top site welding as repair techniques on ocean going vessels and maritime underwater structures.

**BIO** Uwe Aschemeier is a German born and educated Welding Engineer who has evolved through the metals industry by studying mechanical engineering and welding engineering at various advanced education institutions in Germany. Mr. Aschemeier worked for the German Welding Society at its Institute in Munich for several years prior to moving to the United States of America. Once in the United States, Mr. Aschemeier continued his expertise development by working for the Chicago Manufacturing Center, a non-profit consulting organization as well as Charcas Engineering/ Domson Engineering in Toronto, Canada. In 2000 he joined H.C. Nutting Company in Cincinnati, where he worked as a senior welding engineer, commercial diver, and consultant. After consulting for Miami Diver for several years in welding related topics, he joined Miami Diver LLC. (now Subsea Global Solutions) as their senior welding engineer and commercial diver.

Mr. Aschemeier serves on the ISO/TC 44/SC 11/WG 1 Underwater welding committee and on several AWS Standard committees and task groups in several senior positions. He has authored and co-authored numerous welding and NDE related articles published in the "Welding Journal", "Inspection Trends" and other national and international trade magazines. For six years, he served on the AWS Board of Directors.



**MAX  
CERON**



**MAX CERON | Instructor, Saskatchewan Polytechnic**

### Innovative Manufacturing - What is it and how do we teach it.

Innovative manufacturing is a buzzword that is being used across North America in manufacturing sectors. Large scale companies are investing into these programs and colleges are racing to develop curriculum to provide industry with personnel that can be on the leading edge of innovation.

The question still remains, what is Innovative Manufacturing? How can an instructor teach "innovation"?

I will present some basic ideas on how an instructor can approach existing curriculum and learning outcomes and begin to adapt the lessons from the perspective of innovation. How to develop projects and assignments that can help the students understand the underlying expectations of innovation. How instructors must be using and incorporating the latest technologies in their courses. And finally, how to develop a culture of innovation where the status quo is to always be changing and moving with technology and industry.

**BIO** Sebastian (Max) Ceron, Max has been in the steel trades since the age of 17. Throughout his career he has been a business owner, worked in the mining industry, custom fabrication, structural erection, high pressure piping, and even in Hollywood movie design.

With an extensive educational background that includes, University education in Philosophy, Business Certificate, Red Seal in Welding, Steel Fabrication and a Blue Seal, Max has been able to be a part of very exciting projects across Canada and overseas. Max is currently writing curriculum for CWB, SaskPolytech and also teaching Welding, Fabrication and the new Innovative Manufacturing Program at Saskatchewan Polytechnic.





## SPEAKERS



**SUSAN  
CROWLEY**

**SUSAN CROWLEY** | Executive Director, CWB Welding Foundation

### Open Roundtable Discussion: "Building Skills, Building Communities, Building Canada"-

Building Skills, Building Communities, Building Canada – The CWB Welding Foundation is facilitating this round table discussion to encourage dialogue that will contribute to building a strong, more sustainable highly skilled welding workforce in Canada. Perspectives represented will include industry, secondary and post-secondary educators, government, and advocacy groups. The hope is that we foster thoughtful discussion that adds value to the welding experiences of students, community organizations, and consequently the Canadian welding landscape.

**BIO** Joining the CWB Welding Foundation in September 2018, and as a member of the CWB Group Senior Leadership team, Susan was tasked with evaluating the impact and effectiveness of the Foundation's programming and investments across Canada from its founding in 2013 to present, and working with internal and external partners to transition from 'start up' to a sustainable charitable not for profit organization, with programs consistent with its mission and mandate.



**RALPH  
ENGLAND**



Irving Shipbuilding, Inc.

**RALPH ENGLAND** | Training Team Lead

### Apprenticeship at Irving Shipbuilding

An introduction to apprenticeship and Training at Irving Shipbuilding Inc., and in the shipbuilding industry. Discussing the progress, possibilities and the impact of continued Shipbuilding projects for the Maritimes.

We will present the scope of constructing a steel structure as complex, and demanding, as a ship. Defining levels of oversight and how to support an apprentice in an intimidating industry.

Our focus on addressing the ongoing changes in ship construction technology and bringing apprentices up to the level and standard that shipbuilding demands. The production resources group of Irving Shipbuilding will present how it takes an active approach to expediting apprentices thru the block program, setting schedules and supporting skills development. We show how we avail new trades people the opportunity to accelerate their progression to their "Red Seal Journeyman".

Creating change in how an apprentice is supported, is key to expanding, and maintaining our workforce, and continuing to support the building of ships for our Canadian Navy.

**BIO** Ralph England, a welder, with 30 years of trade experience. He is the Production Resources Training Team Leader, and the ASNT Visual Testing Level III Examiner for Irving Shipbuild Inc. His resume includes certifications as a CWB certified Welding inspector Level II, a NACE certified Coatings inspector Level III, and ASNT VT Level III.

Ralph has been a member of Irving shipbuilding for 10 years and has provided QC inspection oversight for the new construction of ships, including an Offshore supply vessel, nine mid-shore patrol vessels, and the current project of the Artic Offshore and Patrol ships. In 2017, Ralph was invited to join the Trades training team, of the production resources group for Irving shipbuilding. As the training team lead, he is responsible for the direction and oversight of all trades training and works closely with the Apprenticeship team leader to ensure Irving's apprentices have the best training advantages the shipyard can provide.

**Personal Quote:**

Always encouraging and supporting trainers to develop the shipbuilders of tomorrow, I strive to Inspire those around me to reach for the next level in their career. "Mutata Vita" translates from Latin to "change life", or "change a life". I have always felt that the opportunity to change a life is a privilege. Every day I am offered the opportunity to have an impact on another person's life. To offer them skills that they will use for the rest of their career. It makes every day fulfilling.





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